

Tokio Marine Holdings
TCFD REPORT 2023



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Satoru Komiya President and Group CEO Tokio Marine Holdings, Inc.

Tokio Marine Group aims to resolve social issues through our business activities based on the Group's purpose of protecting our customers and society in times of need and to increase our corporate value as a result. By continuing to help society through our business activities, we also aim "To Be a Good Company" — one that can still be trusted by customers and society 100 years from now. We have leveraged knowledge and experience accumulated over the years in the insurance business to contribute to social development through the provision of safety and security. We will continue to work to resolve social issues and help build a safe, secure and sustainable future. By doing so, we will perpetually enhance our corporate value and generate value beneficial to all of our stakeholders, and more broadly, to society.

Climate change is a serious global issue, which threatens the safety and security of our customers and society. The intensification of natural disasters directly affects the insurance industry. Therefore, we recognize that climate change is an extremely important issue to address as an insurer (insurance products and services), a global company, institutional investor, asset manager and good corporate citizen. We have been communicating and collaborating with various international organizations, governments, industries, academic institutions, and civil society to achieve the goal of the Paris Agreement, which was adopted at the 21st session of the Conference of the Parties to the UNFCCC (COP21) in December 2015. Based on such constructive dialogue and collaboration, Tokio Marine Group will voluntarily engage in climate action and contribute to the transition to a decarbonized society.

Based on the recommendations of the Task Force on Climate-related Financial Disclosures (TCFD), we present our strategy to identify and make appropriate responses to the impact of climate change on our business and society, along with Tokio Marine Group's initiatives through various business activities toward realizing the transition to a decarbonized society.

The Task Force on Climate-related Financial Disclosures (TCFD) had been entrusted by the Financial Stability Board (FSB) to formulate voluntary recommendations for consistent, comparable, reliable, clear, and efficient climate-related disclosures by companies in the financial sector and released its final recommendations (TCFD recommendations) in June 2017.

Climate change and natural disasters represent a global issue and have a significant impact on Tokio Marine Group as we engage in insurance and financial services. As a founding member of the TCFD, Tokio Marine Holdings has contributed to the formulation and publication of the TCFD recommendations and has been working toward the formulation of policy recommendations to encourage disclosure that will help investment decisions by engaging in discussions and exchanging opinions with relevant government and private-sector parties in Japan and overseas.

In July 2018, Tokio Marine & Nichido became a founding member of the insurer pilot group, launched by the United Nations Environment Programme Finance Initiative (UNEP FI) under the Principles for Sustainable Insurance (PSI) framework to examine and develop methodologies and analytical tools for the insurance industry to make climate-related disclosures based on the TCFD recommendations. The company has contributed to the publication of the final report of the UNEP FI pilot project, entitled "Insuring the climate transition," in January 2021.

In Japan, our Chairman of the Board of Tokio Marine Holdings worked as one of the founders and contributed to the establishment of the TCFD Consortium in May 2019. After the establishment, Tokio Marine Holdings has been a member of the Planning Committee to deliberate on the consortium's course of action and has contributed to the release of the TCFD Guidance (most recently TCFD Guidance 3.0 released in October 2022). The Company also participates in discussion on effective ways for companies to

disclose climate-related information and how to link the disclosed information to appropriate investment decision-making of financial and other organizations.

Tokio Marine Holdings has been making disclosures based on the TCFD recommendations starting from its Integrated Annual Report 2017 and has been striving to enhance its content every year.

The table below is an overview of the four fields of disclosure based on the TCFD recommendations. In this report, we provide detailed information in each field.

Disclosure Based on the TCFD Recommendations

Governance	Strategies	Risk management	Metrics and targets
a) Oversight by the Board of Directors b) Management role	a) Climate-related risks and opportunities b) Impact of climate- related risks and opportunities c) Possible impact of different climate- related scenarios	a) Processes for identifying and assessing climate-related risks b) Processes for managing climate-related risks c) Integration of these processes into overall risk management	a) Metrics used to assess climate-related risks and opportunities b) Scopes 1, 2 and 3 greenhouse gas (GHG) emissions c) Targets used to manage climate-related risks and opportunities

Source: Created by Tokio Marine Holdings based on the Recommendations of the Task Force on Climate-related Financial Disclosures, Figure 4 (p. 14), TCFD, June 2017



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Metrics and Targets

Governance

Various initiatives related to climate action are reported to the Board of Directors after the discussion at Sustainability Committee and Management Meeting. In our governance structure, each relevant execution body voluntarily promotes initiatives under the supervision of the Board of Directors. Key related bodies and their roles are as follows.

1 Supervisory and Execution Structure for Responding to Climate Change

[Board of Directors]

The Board of Directors recognizes responding to climate change as a material management issue and assumes the role of supervising our sustainability strategy and initiatives. The Board deliberates our sustainability policies encompassing climate action, as well as evaluates and determines mid-term and single-year plans. The Board receives reports from the Sustainability Committee every quarter in principle to monitor sustainability iniitiatives and provides instructions as necessary. In addition, the Board of Directors holds deliberation on corporate strategy on the themes of the management environment and management issues, including climate action, to fully utilize the knowledge of outside directors and outside Audit & Supervisory Board members.

Corporate Governance, Integrated Annual Report 2022 (P. 94)

[Group Chief Sustainability Officer (CSUO)]

We established the new position of CSUO in April 2021 to accelerate the promotion of sustainability strategy, including climate action, across the entire Group. The CSUO, a Director, oversees the promotion and permeation of the sustainability strategy, presents related policies to the Board of Directors and the Management Meeting for discussion and takes the role of reporting the progress to these bodies.

[Sustainability Committee]

We established the Sustainability Committee in April 2021 to accelerate our sustainability strategy, including climate action, across the entire Group. Chaired by the CSUO and comprising such members as the CEO, chief officers and management of overseas Group companies, the Sustainability Committee deliberates on details of our sustainability initiatives and policies on a global basis and monitors the progress of each initiative. The committee met four times in fiscal 2022 to promote and execute the sustainability strategy, formulate medium- to long-term targets (KPIs) related to sustainability, formulate, and review annual plans and deliberate on other items.

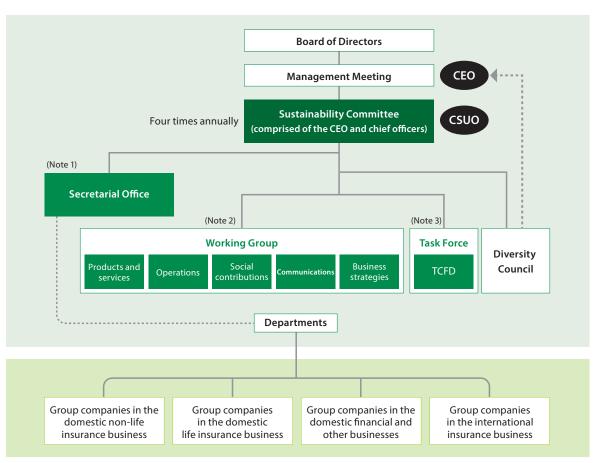
[Division Dedicated to Promoting Sustainability]

Tokio Marine Holdings has a division dedicated to the promotion of the Group's sustainability including climate action (Sustainability Division, Corporate Planning Department), which identifies major challenges related to sustainability as well as formulates and implements related Group-wide strategies and conducts monitoring.

Compensation System for Directors and Executive Officers

In fiscal 2022, we started incorporating non-financial indicators concerning the tasks on climate action and other key issues in our sustainability strategy into the performance-linked compensation for Directors and Executive Officers. We use the progress of each task toward our vision as an indicator, and after performing the first assessment of compensation amounts at the Sustainability Committee, hold a deliberation and give a final decision at the Compensation Committee.

Tokio Marine Holdings' Organizational Structure for Promoting Sustainability



(Note 1) Secretarial Office:

Handles administration for the committee (as well as the subcommittees and task force) and promotes the sustainability strategies.

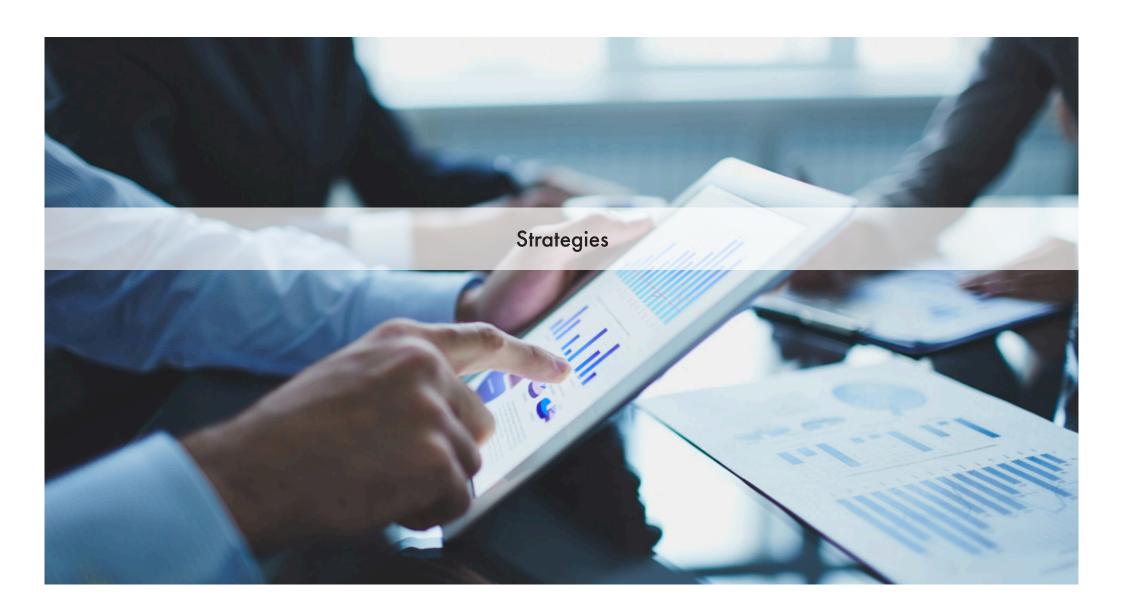
(Note 2) Working Groups:

Formulate and execute annual plans for respective issues, with input from relevant departments of Tokio Marine Holdings and members of Group companies.

Formulate plans and coordinate actions regarding measures to address material issues.

(Note 3) Task force:

Organizes members of projects tasked with strengthening short-term initiatives.



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In responding to climate change, which poses a global social issue critical to human history and important for Tokio Marine Group, we promote initiatives toward achieving carbon neutrality by 2050 in keeping with the promise of the Sustainable Development Goals (SDGs) of leaving no one behind and based on constructive dialogue (engagement) with all of our stakeholders. As an insurer (insurance products and services), institutional investor and asset manager, we provide support both in terms of mitigating and adapting to climate change and help customers and investment and financing recipients solve their respective issues. Efforts include providing insurance products and services to support the transition to a decarbonized society, such as those promoting the more widespread use of renewable energy; providing insurance to cover damages caused by natural disasters; services that will lead to prevention or reduction of damages; and undertaking sustainable investment and financing.

As a global company, we also take climate action through collaboration and cooperation with international and other organizations. We intend to contribute to the mitigation and adaptation to climate change and seek growth together with our stakeholders. Social contribution activities are also key to climate action. As such activities, we plant mangroves and engage in research and educational activities to increase society's resilience, thereby contributing to climate action as a good corporate citizen in local communities.

Additionally, Tokio Marine Group announced "Tokio Marine: Our Climate Strategy" in September 2020 and has since reviewed and updated the statement annually. In this statement, Tokio Marine Holdings commits itself to providing all-out support to customers and investment and financing recipients with regard to climate action.

1 Recognition of Risks and Opportunities

In a strategy, recognizing inherent risks is essential. Tokio Marine Group assumes a rise in climate-related risks and accordingly identifies and evaluates their impact on our business. Climate-related risks include physical risks and transition risks. Physical risks arise from an increase in the frequency and intensity of natural disasters caused by climate change, while transition risks result from the impacts of the transition to a decarbonized society on the corporate value of investee companies and assets held by us. On the other hand, initiatives to mitigate and adapt to climate change also provide business opportunities for Tokio Marine Group. On the next page, we show examples of events for each risk and opportunity based on the TCFD recommendations and examples of risks and opportunities to the Group's business activities.

As is described later in the "Risk Management" section, Tokio Marine Group identifies the "risk of major wind and flood disasters (including physical risks of climate change)" as a material risk that will have an extremely large impact on our financial soundness and business continuity. We believe such risks could increase in frequency and severity due to climate change.

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Risk Management

Metrics and Targets

		Examples of events	Examples of risks to the Group's business activities	Time frame
isks	Acute	Potential for growing frequency and scale of typhoons, floods and other weather events		Short term or longer
Physical risks	Chronic	Rise in temperature Other weather changes, such as droughts and heat waves Rising sea levels Impact on arthropod-borne infectious diseases	Impact on the calculation of claims payments Impact on business continuity caused by damage to buildings and other facilities at bases	
10	Policies and regulations	Increase in carbon prices Strengthening of environment-related regulations and standards Increase in climate-related legislation	Decrease in the corporate value of investee companies and the value of the assets held by the Company due to higher carbon prices Impact on liability insurance payments	
Transition risks	Technology	Technological innovation toward the transition to a decarbonized society	Decrease in the corporate value of investee companies that have missed the transition t a decarbonized society and in the value of the assets held by the Company	Medium to long term
Transit	Markets	Changes in the demand for and supply of products and services	Decline in revenue due to technological innovation and inability to ascertain changes in customer needs	
	Reputation	Changing customer and societal awareness of initiatives surrounding the transition to a decarbonized society	Reputational damage due to the Company's efforts being deemed inappropriate	Short term or longer
Opportunities	products and services, products and services, and designed to increase resilience; changes in public awareness funding needs associated with response to decarbonization		 Increase in investment and financing opportunities on the back of companies' increasing funding needs associated with response to decarbonization Increase in disaster prevention and mitigation needs toward increasing resilience against 	Short term or longer

Note: Short term: less than 3 years, Midium term: 3-10 years, Long term: 10 years or more

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Scenario Analysis

Scenario analysis is a process of identifying and evaluating the potential impact of climate change based on certain scenarios. The Group believes it can be flexible and resilient to these impacts, as most non-life insurance policies are relatively short term and the Group's assets under management are mainly highly liquid financial assets.

<A. Physical Risks>

Physical risks are those related to physical impacts of climate change. Climate change increases the frequency and intensity of natural disasters, which could impact claims payments and business continuity. We conduct a scenario analysis of physical risks as part of our efforts to identify and assess their impact.

A-1. Impact on Claims Payments

The Group takes part in the United Nations Environment Programme Finance Initiative (UNEP FI). Using analysis and assessment tools developed by UNEP FI's climate change impact assessment project, we have created the following assessment of the impact of changes in the intensity (wind speed) and number of tropical cyclones on our claims payments under the IPCC's Representative Concentration Pathway (RCP) 8.5 scenario forecast as of 2050.

Changes in claims payments in 2050

	Intensity (wind speed)	Number of formations
Japan (typhoons)	+5% to +53%	-30% to +28%
United States (hurricanes)	0% to +37%	-36% to +30%

^{*} The figures above reflect economic losses, assuming the same impact on claims payments.

The Tokio Marine Research Institute, a Group company, began conducting research in 2007 to evaluate and calculate the impact on insurance loss of changes in wind disaster risk associated with typhoons under future climate conditions (impact under the IPCC's RCP4.5 and RCP8.5 scenarios) and changes in flood risk due to increased rainfall (impact resulting from temperature increases of 2°C and 4°C). Referring to the results of this scenario analysis, we assess the impact on underwriting of natural disasters resulting from increasingly severe climate change.

Future projections of climate change scenarios ($+2^{\circ}$ C, $+4^{\circ}$ C, etc.) are subject to uncertainties, as described later (see page 14). In assessing the impact of climate change, it is also important to evaluate not only weather phenomena but also the vulnerability of society to disasters as well as the extent to which real estate and personal properties will be concentrated in areas exposed to natural disaster risk in the future and the extent to which their asset values will increase (in other words, the extent to which asset concentration will change). The basis for these projections and assessments is indicated in the following pages.

^{*}The figures above show the rate of change from current weather conditions (1980–2000) to those in around 2050.

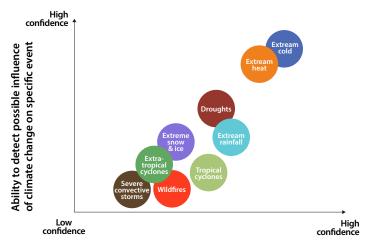
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[Changes in Weather Events]

How a weather event will change due to the impact of climate change and the degree of confidence of such an impact forecast will vary depending on the type of weather event. Figure 1 shows the confidence of climate change impact projections by weather event type. As seen in the figure, the confidence of impact projections for extreme rainfall (heavy rains) is higher than that for tropical cyclones, such as typhoons and hurricanes, but the impact on extreme rainfall (heavy rains) involves greater uncertainty compared to such temperature variations as extreme heat (heat wave) or extreme cold (cold wave).



How well we understand the likely influence on event types in general

Figure 1: Confidence of impact forecasts of climate change

Source: Tokio Marine Holdings based on material prepared by the U.S. National Oceanic and Atmospheric Administration

For heavy rains and tropical cyclones, which are two weather events that considerably affect Tokio Marine Group, we consider the impact of climate change as follows.

♦ Impact of Climate Change on Heavy Rains

In Japan, the frequency of heavy rains has been on the rise since 1900 (Figure 2). The IPCC Sixth Assessment Report released in August 2021 states that heavy rains will become more severe in the future in line with temperature rise and that for every 1°C temperature rise, the intensity (precipitation) of heavy rains will increase by approximately 7%.

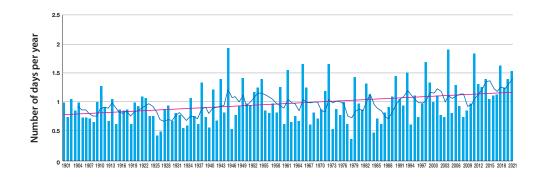


Figure 2: Days per year with daily precipitation of 100 mm or more

Source: Tokio Marine Holdings based on materials from the Japan Meteorological Agency (website)

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◆ Impact of Climate Change on Tropical Cyclones

Atmospheric and oceanic large-scale circulations (e.g., El Niño and monsoons) are closely related to the formation, development and movement of tropical cyclones. As climate change affects each of these factors, the impact of climate change on tropical cyclones consequently becomes more uncertain.

First, looking at past trends, the IPCC Sixth Assessment Report reported an increase in the number of intense typhoons in Japan. However, the certainty level is not yet high, and longer-term, higher-quality observations will be needed to monitor changes in long-term trends (Japan Meteorological Agency).

As for hurricanes making landfall in the United States, even though the ratio of major hurricanes has risen over the past 40 years, a longer-term survey covering the period from 1900 revealed that there is no discernible trend both in the number of total hurricanes and that of major hurricanes (IPCC Sixth Assessment Report).

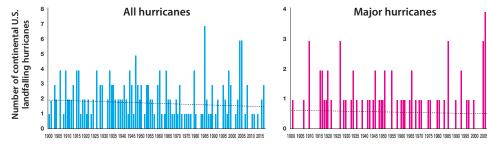


Figure 3: Number of hurricanes making landfall in the United States
Source: Tokio Marine Holdings based on Klotzbach et al., 2018*

In the future, while the number of tropical cyclones is expected to level off or decrease overall, the ratio of intense tropical cyclones is forecast to increase. As such, there are both decrease and increase projections for the number of intense tropical cyclones (IPCC Sixth Assessment Report).

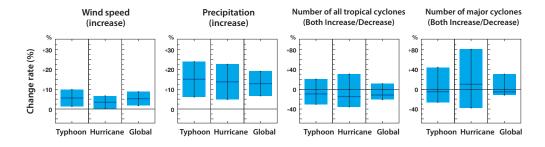


Figure 4: Changes in tropical cyclones due to a temperature change of +2°C

Source: Tokio Marine Holdings based on Knutson et al., 2020*

^{*} Philip J. Klotzbach, Steven G. Bowen, Roger Pielke Jr., and Michael Bell, 2018: Continental U.S. hurricane landfall frequency and associated damage. Bull. Amer. Meteor. Soc., 99, 1359–1376, https://doi.org/10.1175/BAMS-D-17-0184.1 (© American Meteorological Society. Used with permission.)

^{*}Thomas Knutson, Suzana J. Camargo, Johnny C. L. Chan, Kerry Emanuel, Chang-Hoi Ho, James Kossin, Mrutyunjay Mohapatra, Masaki Satoh, Masato Sugi, Kevin Walsh, and Liguang Wu, 2020: Tropical cyclones and climate change assessment part II: Projected response to anthropogenic warming. Bull. Amer. Meteor. Soc.,101, E303–E322, https://doi.org/10.1175/8AMS-D-18-0194.1 (© American Meteorological Society. Used with permission.)

[Changes in Vulnerabilities in Society and Asset Exposure]

As shown in Figure 2 on page 12, the frequency of heavy rains in Japan has been increasing since 1900. Figure 5 below, on the other hand, shows a declining trend for flooded areas. This is because Japan's disaster prevention infrastructure, including embankments, has improved since the mid-19th century and is effectively reducing the occurrence of floods during heavy rains.

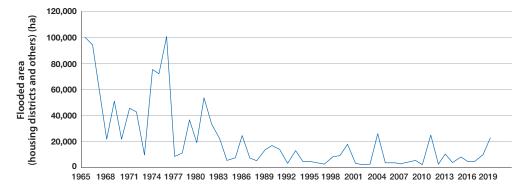


Figure 5: Areas inundated by floods (ha)

Source: Tokio Marine Holdings based on materials from the Ministry of Land, Infrastructure, Transport and Tourism (flood statistics)

The amount of damage will vary significantly if there is a change in asset exposure, that is, a change in the degree of concentration of assets or in the value of assets in areas exposed to natural disaster risk. In this way, we recognize that identifying changes in weather events themselves, such as heavy rains and typhoons, as well as changes in society's vulnerabilities to disasters and in asset exposure are essential in predicting damage due to natural disasters.

Changes in Vulnerabilities in Society

In Japan, revisions to the Building Standards Act have proved to directly translate into the better resilience of society as a whole. In fact, revisions made in 1981 to the seismic building codes and in 2000 to the wind pressure resistance building codes have greatly contributed to the improved resistance of buildings against natural disasters. More recently, Typhoon Faxai, which made landfall in 2019 and caused damage to the roofs of many houses, has prompted revisions to the standards for roofing on countermeasures against intense winds, which were enacted in January 2022. In addition, the Ministry of Land, Infrastructure, Transport and Tourism has already announced its policy that the anticipated intensification of natural disasters should be considered in improving disaster prevention infrastructure in the future, making its recommendations for rivers in 2019 and for storm surges in 2020.

Overseas, efforts to increase resilience throughout society have also been under way. The United States, for example, has improved its disaster prevention infrastructure and revised building codes following huge natural disasters, including Hurricanes.

In keeping with the move toward strengthening resilience in and outside Japan, Tokio Marine Group has been contributing to greater resilience of the entire society by supporting customers to cope with disasters through the dissemination of disaster information.

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♦ Recognition of Changes in Asset Exposure

In Japan, an influx of people into urban areas is expected to continue in the future. Over the period from 2015 to 2040, even though the number of households in the country is projected to decline 4.8% on national average, an increase is expected in some prefectures, including Tokyo. As such, the trend of changes in asset exposure varies from region to region.

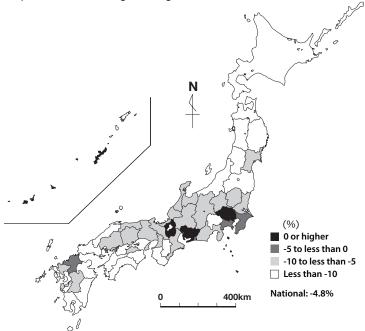


Figure 6: Changes in the number of households from 2015 to 2040

Source: National Institute of Population and Social Security Research, "Number of Household Projections for Japan (2017 Estimates)"

From the viewpoint of damage due to natural disasters, an important factor is the exact location of assets (whether within a hazardous area). In response to frequent occurrence of natural disasters in recent years, Japan's Ministry of Land, Infrastructure, Transport and Tourism has stated that it is important to consider flood risk reduction when determining the locations of housing districts and city functions. Accordingly, Tokio Marine Group is monitoring the policy trends of the national and local governments.

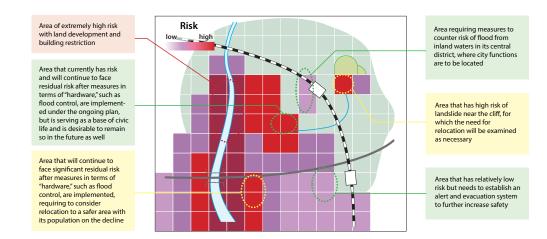


Figure 7: Direction of urban development based on the risk of water-related disasters

Source: Tokio Marine Holdings based on materials from the Ministry of Land, Infrastructure, Transport and Tourism (website)

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Changes in the exposure geographic distribution are important in considering natural disaster damage both in Japan and overseas. In the United States, economic loss caused by hurricanes in the past is known to be on an upward trend, but when the impact of a change in inflation, wealth properties and population is normalized, there is no longer a significant trend. Thus, a rise in economic loss is mostly a result of these factors.

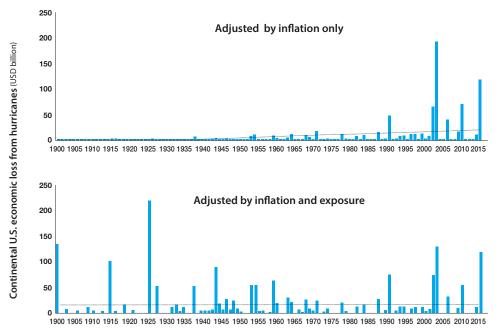


Figure 8: Economic loss due to hurricanes on the U.S. mainland

Source: Tokio Marine Holdings based on Klotzbach et al., 2018*

A-2. Impact on Business Continuity: Promoting Climate Change Adaptation Measures

Tokio Marine Group uses multiple scenarios^{*1} to perform analysis and evaluation^{*2} on the impact of climate change risk on our operations using holistic and context-specific approaches. By doing so, we are promoting climate action and initiatives to increase resilience against disasters.

- *1 Including IPCC's Shared Socioeconomic Pathway (SSP) 5-8.5, SSP3-7.0, SSP2-3.5, SSP1-2.6, SSP1-9, RCP8.5, RCP6.0, RCP4.5 and RCP2.6 scenarios
- *2 Climate change risk analysis and evaluation conducted in collaboration with Resilience of the United Kingdom

♦ Holistic Approach

Based on a holistic approach, we use multiple scenarios to analyze and evaluate, both quantitatively and qualitatively, the impact of an increase in weather disasters (such as heavy rains and floods) on our operations and have been implementing measures from medium- to long-term (about two to five years) and short-term (within one year) viewpoints. On the whole, we have specifically concluded that an increase in weather disasters will not have a profound impact on our operations as compared to the manufacturing and other industries for a number of reasons. For example, insurance products represent an intangible service and do not necessarily require physical sales bases, and their development and production involve minor supply chain risks such as the procurement of raw materials.

♦ Context-Specific Approach

Based on a context-specific approach, we use multiple scenarios to analyze and evaluate, both qualitatively and quantitatively, the impact of increase in weather disasters (such as heavy rains and floods) on our operations and have been promoting initiatives to protect our own assets from weather disasters, which are expected to become more severe due to climate change. Specifically, we are examining measures from medium- to long-term (about two to five years) and short-term (within one year) viewpoints and implementing measures against flood disasters, such as installing emergency power generators and more water bars at our major bases.

^{*} Philip J. Klotzbach, Steven G. Bowen, Roger Pielke Jr., and Michael Bell, 2018: Continental U.S. hurricane landfall frequency and associated damage. Bull. Amer. Meteor. Soc., 99, 1359–1376, https://doi.org/10.1175/BAMS-D-17-0184.1 (© American Meteorological Society. Used with permission.)

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<B. Transition Risks>

Transition risks are risks associated with the transition to a decarbonized society. As the global momentum toward decarbonization accelerates and the transition to a decarbonized society progresses, we anticipate more stringent regulations, technological innovation, asset value fluctuations and changes in the investment environment as well as in customer needs, which could affect the Group's businesses.

Transition risks include impact on the corporate value of investee companies and the value of assets held by the Company due to increased costs associated with GHG emissions resulting from climate change. To reduce the impact of these factors, we are decreasing total holdings of business-related equities and promoting engagement with investee companies.

We have estimated the impact of transition risks on assets under management by Tokio Marine Group (equities, corporate bonds, commercial mortgage-backed securities – CMBS and government bonds) using "Aladdin Climate," a model provided by BlackRock Solutions. With the model, we have quantified the impact on corporate value due to changes in scenario variables (carbon prices, energy demand, fuel prices, emissions, etc.) based on scenarios provided by The Network of Central Banks and Supervisors for Greening the Financial System (NGFS). More specifically, the quantification of the impact on corporate value has been conducted by comparing the scenario where current policies continue to 2050 (NGFS's Hot House World – Current Policies scenario, assuming limited policy changes and a 3.3°C temperature rise at the end of this century) with the following two scenarios also of NGFS.

- (1) Orderly: Net Zero 2050 (Assuming a temperature rise suppressed to 1.5°C and net zero CO₂ emission both by 2050)
- (2) Disorderly: Delayed Transition (Assuming a 1.8°C temperature rise by 2050 due to delayed policy changes)

The following shows the results of the model-based estimates of transition risks of assets (equities, corporate bonds, CMBS and government bonds) (impact analysis on asset prices based on scenarios up to 2050) held by Tokio Marine Group as of March 31, 2023.

	Transition risks		
	Orderly	Disorderly	
Total	-1.5%	-1.3%	
Equities	-7.7%	-5.6%	
Corporate bonds	-2.4%	-1.8%	
CMBS	-0.0%	-0.2%	
Government bonds	-0.0%	-0.4%	

^{*}The Aladdin Climate analytics of BlackRock Solutions contained in this report should not be construed as a characterization of the materiality or financial impact of the corresponding information. The Aladdin Climate analytics includes non-financial metrics and involves measurement uncertainties resulting from limitations inherent to the nature of the corresponding data and the methods used for determining such data.

The Aladdin Climate analytics is not fixed and is likely to change and evolve over time. The Aladdin Climate analytics relies on relatively new analysis methods, and there are limited peer reviews or comparable data available. BlackRock Solutions does not guarantee and shall not be responsible for the content, accuracy, timeliness, non-infringement or completeness of the Aladdin Climate analytics contained herein or have any liability resulting from the use of the Aladdin Climate analytics in this report or any actions taken in reliance on any information herein.

It should be noted that the model results used by Tokio Marine Group does not separately calculate the positive effects (market superiority or business opportunities) generated by technically implementing climate change mitigation and adaptation measures as we transition to a low-carbon society. Moreover, we believe that this and other quantification models of climate change are still in the development stage, undergoing upgrades based on the latest research findings. We thus have no plan, at this point, to use the data shown above in our management decision-making process, but will continue to carry out research and investigations to explore more appropriate ways to utilize such quantification modeling methods.

3 Implementation of Climate Change Strategy

<A. Initiatives of Tokio Marine Group>

Tokio Marine Group assumes the roles of an insurance company, institutional investor, asset manager, global company, and good corporate citizen. In every role, we are promoting the creation of a safe, secure, and sustainable future to protect our customers and local communities in times of need even 100 years from now. In the following sections, we describe our initiatives in each role.

A-1. Initiatives as an Insurance Company (Insurance Products and Services)

Tokio Marine Group engages in the development and provision of insurance products and services that support the transition to a decarbonized society. As one example, we provide insurance related to renewable energy.

There is momentum toward decarbonization worldwide and a shift to renewable energy in major countries for a more efficient electricity supply. In building and expanding the use of offshore wind power generation plants, for example, insurance is indispensable as project financing will not be extended without insurance. However, offshore construction work is never easy, and there is also a need to reduce work errors and prepare for typhoons. It thus represents a challenging domain requiring high levels of underwriting and claims services capabilities.

Tokio Marine Group has acquired GCube, a leading company offering insurance to renewable energy

operators. Based on its advanced underwriting and claims services capabilities, we are driving the more widespread use of renewable energy on a global basis through insurance underwriting and insurance claims payments, seamlessly covering everything from the construction phase to the operational phase after the launch.



In February 2021, Tokio Marine & Nichido, a Group company, established the company-wide Green Transformation (GX) Task Force to support customers' efforts to become carbon neutral and transition to a decarbonized society and contributing to the growth and development of the industry.

The company is engaging in the development and provision of insurance products and solutions that will contribute to the more widespread use of renewable energy, including offshore wind power and solar power, the spread of storage batteries and the promotion of the use of hydrogen. Our specific efforts to contribute to customers' transition to a decarbonized society are multifaceted. They include developing defect warranty insurance for the liability



of contractors constructing offshore wind power generation plants; undertaking an initiative to support local communities in achieving decarbonization by utilizing a solar power purchase agreement (PPA) model; developing insurance products to help electricity retailers to stabilize their management and secure a power supply capacity; and providing a service to support information disclosures based on the TCFD recommendations.

Promoting Green Transformation, Sustainability Report 2022 (P. 70)

For the transition to a decarbonized society, it is essential to make progress with all our customers, so we have been supporting their transition by conducting engagements and providing solutions. To date, Tokio Marine & Nichido has made engagements with more than 250 companies, of these the company has offered solutions to resolve various issues to more than 120 companies while leveraging its expertise.

As one engagement example, Tokio Marine & Nichido has been holding dialogue with power plants for which the company has provided insurance. The company encourages them to consider the environment through the adoption of innovative high-efficiency power generation technologies and carbon dioxide capture, utilization and storage technologies (CCUS/carbon recycling) that reduce GHG emissions and supports their transition by providing relevant products and consulting services.

To strengthening of our dialogues, we have set a target to conduct deeper engagements with 200 large corporate customers, which accounts for approximately 90% of insurance-associated emissions of Tokio Marine & Nichido.

In November 2022, Tokio Marine & Nichido also launched, jointly with MUFG Bank, Ltd., a service to support disclosures of climate change risks and opportunities and other related information in accordance with the TCFD recommendations as a service solution to help companies promote GX.

A-2. Initiatives as an Institutional Investor (Investment and Financing)

As a signatory to the United Nations Principles for Responsible Investment (PRI) through Group companies Tokio Marine & Nichido and Tokio Marine Asset Management, we have established a policy concerning environmental, social and governance (ESG) investment and financing, considering not only financial information but also ESG elements. By incorporating climate-related elements into the investment decision-making process, we are supporting the transition to a decarbonized society.

Specifically, we are undertaking ESG engagement to support increased corporate value and the sustainable growth of investee companies through constructive and purposeful dialogue that considers non-financial factors including ESG elements in addition to their financial data as well as ESG integration where both financial data and non-financial data are used in the investment decision-making process.

In fiscal 2022, Tokio Marine & Nichido established a team to carry out impact investment that generates both social and economic value and has made investment commitments to renewable energy, environmental and other funds conducive to counter climate change. In fiscal 2023, the company committed to investment in a new field, specifically a forestry fund, to promote the passing down of valuable forest resources to future generations.

As for our ongoing themed investment and financing efforts, such as those related to green bonds and sustainability bonds, we are also promoting the creation of social and economic value in new fields. In fiscal 2022, we invested in Japan's first blue bonds to support the investee companies' efforts related to environmentally sustainable fishery and aquafarming businesses. We have also invested in transition bonds issued by gas, iron and steel and other companies. In this way, we have been providing a broad range of support for the realization of a decarbonized society in the investment and financing field.

The total balance of ESG-themed investments and financing, including green bonds, sustainability bonds and green loans, was about 109 billion yen as of March 31, 2023, for Tokio Marine & Nichido, Tokio Marine & Nichido Life and Nisshin Fire. In fiscal 2022, Tokio Marine & Nichido started making impact investments in funds with measurable social returns, such as renewable energy funds. Such commitments amounted to approximately 13 billion yen as of March 31, 2023.

We have also begun using data providers to conduct quantitative analyses of the GHG emissions of our investee companies.

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A-3. Initiatives as an Asset Manager (Fund Formation)

Tokio Marine Asset Management has been operating renewable energy funds targeting investments in solar power plants since 2012, effectively supporting initiatives aimed at the transition to a decarbonized society.

Performance of renewable energy funds (Total as of March 31, 2022)

Amount committed Approx. 62 billion yen

Units installed 45

Power generation capacity (DC) ··· Approx. 280 MW



A-4. Initiatives as a Global Company

(Leading Discussions at International Climate Change Conferences)

As climate change is an important social issue that needs to be addressed by the entire world, Tokio Marine Group actively engages in dialogue with international organizations, governments, industries, academic communities, NPOs and NGOs.

We have led discussions at international conferences, which includes co-chairing a climate changerelated working group for the Geneva Association since 2008. We have also joined the Association's climate change task force and have been engaging in the formulation of scenario analysis and stress test guidelines to perform forward-looking impact assessment of climate change.

In July 2018, Tokio Marine & Nichido became a founding member of the insurer pilot group, launched by the United Nations Environment Programme Finance Initiative (UNEP FI) under the Principles for Sustainable Insurance (PSI) framework to examine and develop methodologies and analytical tools for the insurance industry to make climate-related disclosures based on the TCFD recommendations. The company has contributed to the publication of the final report of the UNEP FI pilot project, entitled "Insuring the climate transition," in January 2021.

Tokio Marine Kiln and Tokio Marine HCC International from Tokio Marine Group have joined ClimateWise, a climate change-related international initiative in the insurance industry. They have been carrying out studies and research on various risks and opportunities related to climate change jointly with about 30 leading insurers in the world.

We are also the only Asian company to be a member of the Sustainable Markets Initiative, an insurance industry task force envisioned by the then Prince Charles of England and established in June 2021.

In Japan, the then Chairman of the Board of Tokio Marine Holdings worked as one of the founders and contributed to the establishment of the TCFD Consortium in May 2019. After the establishment, Tokio Marine Holdings has been a member of the Planning Committee to deliberate on the consortium's course of action. We have contributed to the creation of the three versions of the TCFD Guidance released in December 2018, July 2020 and October 2022, respectively, and "A Guide to Flood Risk Assessments for Enhanced TCFD Disclosures" released by the Ministry of Land, Infrastructure, Transport and Tourism in March 2023. We also participate in discussion on effective ways for companies to disclose climate-related information and how to link the disclosed information to appropriate investment decision-making of financial and other organizations.

Tokio Marine Group is contributing to the creation of international rules and the progress in research on climate change and natural disaster risks through these initiatives.











A-5. Initiatives as a Good Corporate Citizen (Social Contribution)

Mangrove forests have an effect on the prevention and mitigation of global warming by absorbing and fixing a significant volume of CO₂. Under the concept of "Insurance for the Future of the Earth," Tokio Marine Group has engaged in the Mangrove Planting Project since 1999. As of March 31, 2023, approximately 12,261 hectares of mangrove forest have been planted through this project in nine countries, primarily in Asia. In addition to Tokio Marine & Nichido, other Group companies are now planting mangroves. We have also announced the Mangrove-Based Value Co-creation 100-Year Declaration, which aims to create value through the blessings of nature brought by mangroves in collaboration with forestry NGOs. Under the declaration, we will continue to undertake this project in the future.

In 2022, we launched activities to protect eelgrass beds. Eelgrass is a type of seagrass, which grows in sandy, shallow waters with sunlight and gentle waves. It has a high ability to absorb and fixate CO₂ from the atmosphere as well as purify water. Together with mangroves, we will promote this initiative as an effort to protect the global environment.







Restoring eelgrass beds



Green Lessons

With our strong belief that "it is our responsibility to pass on a bright future to future generations," Tokio Marine Holdings has positioned future generations as its stakeholders in addition to customers, society, employees, shareholders and investors since 2021. We will step up our tree planting, education, and other efforts to pass on a sustainable environment and society to these future generations.

<B. Policies Concerning Insurance Underwriting as well as Investment and Financing>

Our basic policy on climate change is to support the decarbonization of customers and local communities through insurance products and services as well as investments and financing through constructive dialogue with stakeholders. We individually set up a policy on each transaction for the areas that could cause significant, negative impacts on the environment or society.

Insurance underwriting, investment, and financing on specific sectors

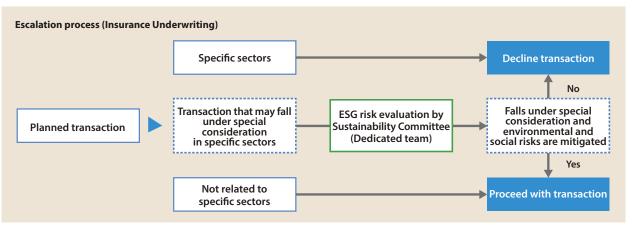
Tokio Marine Group has not provided new insurance underwriting capacities nor investment and financing to coal-fired power generation projects since September 2020 or thermal coal mining projects since September 2021, regardless of whether they are newly constructed or not. However, we may grant exceptions after careful consideration for projects with innovative technologies and approaches, such as CCS/CCUS*1 and mixed combustion, aiming to achieve the goals of the Paris Agreement.

Since September 2022, Tokio Marine Group has also strengthened its commitment by protecting the environment and supporting the transition to a decarbonized

society by no longer providing new insurance underwriting capacities nor investment and financing to oil and gas company extraction projects^{*2} in the Arctic Circle (all areas north of latitude 66°33, including the Arctic National Wildlife Refuge, ANWR) and oil sands mining.

Tokio Marine Group operates a strict underwriting policy for specific sectors it defines high risk to the environment and society. For underwriting transactions in the specific sectors that may fall under special consideration*3, the Group makes a transaction decision based on risk assessment by a dedicated team through an escalation process and, if necessary, approval by the Sustainability Committee. In FY2022, we received 21 inquiries regarding specific sectors, one of which was subject to evaluation by the dedicated team.

- *1 Carbon dioxide capture and storage/Carbon dioxide capture, utilization, and storage
- *2 Exemptions for projects with decarbonization plans that are aligned with the Paris Agreement
- *3 Projects with innovative technologies and approaches, such as CCS/CCUS and mixed combustion which contribute to achieving the goals set in the Paris Agreement, and projects conducted by companies with decarbonization plans aligned with the Paris Agreement will be carefully decided after analyzing their ESG risks.





[Managing Climate-Related Risk Based on Enterprise Risk Management (ERM)]

Tokio Marine Group conducts enterprise risk management (ERM), which includes the management of climate risks. Through the ERM cycle, we comprehensively identify and assess climate-related risks, using both qualitative and quantitative approaches.

In the insurance business, which pursues profit through risk-taking, risk assessment is the foundation of our business. The Group has been working for many years to increase the level of sophistication of its risk assessment for material risks (including those due to natural disasters) both quantitatively and qualitatively. Specific initiatives are as follows.

3. Business and Other Risks, Section 2 Business Overview, Part 1 Corporate Information, Fiscal 2022 Annual Financial Report (P. 21) (in Japanese)

Qualitative Risk Management

We identify all forms of risks comprehensively, including those for natural disasters such as major storms and emerging risks due to environmental changes. Of these risks, we define risks that will have an extremely large impact on our financial soundness and business continuity as "material risks." We include the risk of major wind and flooding disasters (including climate change physical risks) in the "material risks" category, which we believe could become more frequent and severe due to the effects of climate change. For these material risks, we also formulate control measures prior to risk emergence and response measures for after risks occur.

Quantitative Risk Management

For material risks, through measuring risk amounts and implementing stress tests as part of our quantitative risk management, we perform a multifaceted review of the adequacy of capital relative to the risks held for the purpose of maintaining ratings and preventing bankruptcy.

We calculate risk amounts posed by natural disasters using a risk model (for Japan, a risk model we developed in-house based on engineering theory and the latest knowledge of natural disasters, and for overseas, models provided by outside vendors for insurance companies). We independently analyze changing trends of past tropical cyclones (typhoons in Japan and hurricanes in the United States) and torrential rains and incorporate this data as necessary in order to properly assess current weather phenomena.

Furthermore, within material risks, we conduct stress tests based on scenarios in which extreme economic losses are expected and scenarios where multiple material risks occur at the same time. As for risks involving major wind and flooding disasters, for example, these scenarios assume typhoons and flooding on a much larger scale than the major typhoons that hit the Greater Tokyo Area in 2018 and 2019 causing extensive damages. We update scenarios continuously while taking into account stress tests released by the regulatory authorities, the latest knowledge (including that of climate change) and the most recent case studies.

[Appropriately Controlling Risk through Risk Diversification and Reinsurance, etc.]

Natural disasters are inevitable in Japan, our home market. For that reason, we have sought to control risk capital by geographic, business and product risk diversification through M&A overseas. In addition, reinsurance, as a hedge against risk, is also an effective way to protect our capital and stabilize profits. The Group utilizes reinsurance to prepare for major natural disasters (capital events) that occur once every few centuries, and we determine earnings coverage from the standpoint of economic rationality and take necessary measures.

[Acquisition of Knowledge (Industry-Academia Collaboration, etc.)]

Tokio Marine Group is deepening collaboration with both inside and outside experts to acquire knowledge about risks. The Tokio Marine Research Institute collaborates with The University of Tokyo, Nagoya University and Kyoto University, among others, to carry out impact analysis based on the possibility for increased insurance losses associated with natural disasters that are becoming more severe in nature.

Moreover, Tokio Marine dR and a team of experts in natural disasters working in Atlanta in the United States are leading efforts to upgrade natural disaster risk management across the entire Group, including various evaluations of natural disaster risk models.



Metrics and Targets

Metrics and Targets

[Metrics and Targets for Fiscal 2050]

Reduction of GHG emissions

Aiming to reduce GHG (CO₂) emissions from Tokio Marine Group to net zero by fiscal 2050 for our own operations (including insurance customers and investment and financing recipients)*1,*2.

[Metrics and Targets for Fiscal 2030]

Reduction of GHG emissions

Reducing GHG emissions (CO₂) for operations from Tokio Marine Group by 60% (vs 2015)*3

Renewable electricity use

Using 100% of renewable electricity at Tokio Marine Group's major business facilities

• Electrification of company-owned vehicles (Tokio Marine & Nichido, Tokio Marine & Nichido Life and Nisshin Fire)

Switching all vehicles owned by Tokio Marine & Nichido, Tokio Marine & Nichido Life and Nisshin Fire to electrified vehicles (EV, PHV, HV, etc.)

Engagements with customers (Tokio Marine Nichido)

Conduct engagements with 200 large corporate customers*4, which accounts for approximately 90% of insurance associated GHG emissions of Tokio Marine & Nichido and achieve engagement level 2 (see table below) with more than 160 customers

Level	Topics	Activities
1.	Identify issues	Understand customer's decarbonization plans and initiatives based on the company's management plan, IR reports, etc., while presenting our list of decarbonization solutions.
2.	Proposal based on identified issues	Provide concrete solutions after creating a shared understanding of issues. • Support for adopting renewable energy technologies, risk assessment, and writing insurance to mitigate risks. • Advisory on climate change-related information disclosure and formulation of decarbonization plan, etc.,
3.	Provide insurance and solutions	Support customers' transition through our proposed list of solutions and insurance services.

[Metrics and Targets for Fiscal 2023] (Increase or Improvement vs Fiscal 2020)

• Increase in insurance products that will contribute to green transformation (GX) Increasing income from insurance premiums on GX-related insurance products by around 7 billion yen (Tokio Marine & Nichido)

Has increased by 6.3 billion yen as of the end of fiscal 2022

Our strategy is to expand our insurance offerings to drive the more widespread use of renewable energy. We aim to increase GX-related insurance by using insurance premiums as a metric.

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Improvement of profitability of fire insurance

Improving profitability of fire insurance by more than 45 billion yen*5 (Tokio Marine & Nichido) Has improved by 36.6 billion yen as of the end of fiscal 2022

To protect customers and local communities in times of need, we must provide fire insurance in preparation for natural disasters that have been becoming increasingly severe. We will use the profitability of fire insurance as a metric and seek to provide the fire insurance system in a stable and sustainable manner.

- *1 Medium-term targets still under consideration
- *2 Scope 3, Category 15, based on the GHG Protocol standards
- *3 Associated with our own business activities (Scope 1 [direct emissions] + Scope 2 [indirect emissions] + Scope 3 [other indirect emissions; Categories 1, 3, 5 and 6] based on the GHG Protocol standards)

 Scope 3 includes categories of importance to the Group for which numerical values can be obtained.
- *4 Prime listed companies selected from the top 150 customers of Tokio Marine & Nichido in terms of written insurance premiums and its top 100 customers in terms of GHG emissions.
- *5 Supposing natural catastrophic claims in an average year Supposing natural catastrophic claims in an average year.

2 GHG Emissions

[Emissions Associated with the Group's Business Activities and Achieving Carbon Neutrality]

Each Tokio Marine Group company is working to reduce the environmental impact associated with its business activities, and at the same time, aims to achieve carbon neutrality on a global basis, in which the amount of GHG fixed and reduced through mangrove planting and the use of natural energy exceeds GHG (CO₂) emissions from business activities.

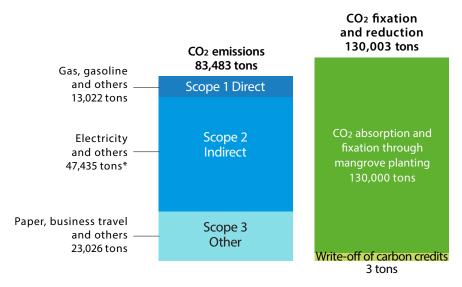
Achieving Carbon Neutrality in Fiscal 2021

Reduction of GHG (CO₂) emissions from Tokio Marine Group operations*1: 83,483 tons (32% reduction vs 2015)

(Scope 1: 13,022 tons; Scope 2: 47,435 tons; Scope 3*2: 23,026 tons)

Amount of GHG (CO₂) Fixed and Reduced: 130,003 tons

Tokio Marine Group is working to reduce the environmental impact (domestic and international) and become carbon neutral by 1) conserving energy and using energy more efficiently, 2) planting mangroves to absorb and fix CO2, 3) using renewable energy (such as by procuring green electricity) and 4) amortizing carbon credits. As a result of these efforts, in fiscal 2021 we achieved carbon neutrality for the ninth consecutive year (since fiscal 2013) thanks to absorption and fixation effects of mangrove planting and the use of carbon credits outperforming the CO₂ emissions generated by the Group's overall business activities. The value of ecosystem services generated through the Mangrove Planting



^{*} CO₂ emissions include the effect of purchasing green power, etc., of 8,597 tons.

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Project over the past 20 years (from April 1999 to the end of March 2019) has reached approximately 118.5 billion yen. We expect the value to climb to 391.2 billion yen by the end of fiscal 2038*3. As of March 31, 2023, we have planted a total area of 12,261 hectares of mangrove forest.

- *1 Associated with our own business activities (Scope 1 [direct emissions] + Scope 2 [indirect emissions] + Scope 3 [other indirect emissions; Categories 1, 3, 5 and 6] based on the GHG Protocol standards)
- *2 Amount of paper used, etc. (Categories 1, 3, 5 and 6)
- *3 Survey contracted out to Mitsubishi Research Institute, Inc. and evaluated following internationally recognized methodologies

[GHG Emissions for Investment Portfolio]

To assess the climate change-related risks and opportunities of its investee companies and financing recipients, Tokio Marine & Nichido has performed analysis of total GHG emissions and weighted average

	Total GHG emissions (Scope 1 and 2: million tCO ₂ e)	WACI (tCO2e/million USD)
Domestic equities	1.86	114
Domestic bonds	0.92	542

Total GHG emissions:

Greenhouse gas emissions associated with the portfolio, calculated based on the company's percentage of equity ownership to adjusted corporate value (market capitalization + interest-bearing debt)

Weighted average carbon intensity (WACI):

Calculated by multiplying each investee company's greenhouse gas emissions to revenue by the weight of the company in the portfolio and getting the sum of these figures

carbon intensity (WACI) on its domestic listed equity and bond portfolios as of March 31, 2022, the disclosure of which is recommended by the TCFD. In performing the analysis, the company conducted measurements using data provided by MSCI ESG Research LLC*4, 5, 6.

We will continue to urge our investee companies to fully disclose climate change-related information and work toward a decarbonized society through engagement, while also making use of this analysis.

- *4 The figures in the table cover 93.3% of the domestic listed equities in the portfolio (based on the market value). Likewise, the figures in the table cover 66.0% of the domestic bonds in the portfolio (based on the book value).
- *5 Data may be subject to change retrospectively.
- *6 We conducted measurement of our GHG emissions using information (the "Information") from MSCI ESG Research LLC and its affiliates (the "ESG Parties") as well as from other information providers. The Information may only be used for readers' internal use, may not be reproduced or resold in any form and may not be used as a basis for, or a component of, any financial instruments or products or indices. The ESG Parties do not allow the use of the Information to determine which securities to buy or sell or when to buy or sell them and do not warrant or guarantee the originality, accuracy and/or completeness of the Information. The ESG Parties expressly disclaim all explicit or implicit warranties, including those of merchantability and fitness for a particular purpose. None of the ESG Parties shall have any liability for any errors or omissions in connection with the Information or any liability for any direct, indirect, special, punitive, consequential or any other damages (including lost profits) even if they have been notified of the possibility of such damages.