Tokio Marine Holdings

Climate & Nature REPORT 2025

TOKIO MARINE

Editorial Policy for This Report

The purpose of Tokio Marine Holdings Climate & Nature Report 2025 is to describe to its stakeholders initiatives undertaken by the Group to address climate change and nature-related challenges. We believe we need to take an integrated approach since climate change and nature-related challenges are closely intertwined. This is why we are publishing this integrated report for the first time.

In addition to the CEO message outlining our determination to address climate change and nature-related challenges, the report describes the initiatives undertaken by the Group in line with the four pillars of the TCFD/TNFD recommendations: governance, strategies, risk (and its impact) management, and metrics and targets.

One of the special features highlight the efforts made by ID&E Group, which has recently joined Tokio Marine Group, to resolve environmental and societal challenges. Another casts a spotlight on Tokio Marine & Nichido Forest for the Future (Higashiyama Forest Park in Aki City, Kochi Prefecture), which contributes to achieving the 30 by 30 target.

Publication information

- Reporting period: Fiscal 2023 and fiscal 2024
- Reporting organizations: Tokio Marine Holdings and its major subsidiaries (consolidated Group companies and others, including Tokio Marine & Nichido) (hereafter collectively referred to as "Tokio Marine Group")
- Subject of analysis:
  Analysis of insurance underwriting portfolio: Tokio Marine & Nichido's corporate customer insurance underwriting
  Analysis of investment and financing portfolio: Japan listed stocks and bonds held by Tokio Marine & Nichido
  Analysis of Tokio Marine Group's business locations (including the value chain): business locations of Japan consolidated Group companies and some insurance agents of Tokio Marine & Nichido
- Reference guidelines: Recommendations of the TCFD and recommendations of the TNFD

INDEX

Tokio Marine Holdings
Climate & Nature REPORT 2025

CEO Message

Masahiro Koike

President and Group CEO
Tokio Marine Holdings, Inc.

Since it was established in 1879, Tokio Marine Group has dealt with ever-changing societal challenges based on the Group's purpose of to be there for our customers and society in times of need. From the development and provision of products and services to corporate citizenship activities, we have helped our customers and society to flourish while continuously increasing our corporate value by tirelessly attempting to address societal challenges through our business activities. This history is testament to our commitment to sustainability.

The Group has a global business presence, operating in more than 50 countries around the world. As such, what happens in any part of the world is now something that concerns us. We consider the intensification of natural disasters due to climate change as one of the most crucial societal challenges to us as we underwrite insurance primarily in Japan, a disaster-prone nation, but also across the rest of the world. Japan has experienced a succession of windstorms, floods and hail damage. In fact, natural disasters have occurred on an unprecedented scale, such as devastating flooding in Brazil in 2024 and wildfires in 2025 in California, United States, and Ofunato City in Iwate Prefecture, Japan.

Witnessing this reality has made me keenly aware of our mission as an insurance company and the weight of responsibility on our shoulders. Being able to promptly and reliably provide customers with the necessary support in times of need is our greatest strength. In the event of a major disaster, we not only quickly pay insurance claims but we send support staff to the affected area and also determine the damage using satellite imagery in a timely manner. Beyond our insurance products, we hope to help create a disaster-resilient society by offering greater value in domains such as measures to minimize damage and risks, disaster prevention, disaster mitigation, early recovery and recurrence prevention.

Degradation of natural capital and loss of biodiversity are also pressing challenges. Examples of natural capital degradation include a declining ability of forests to absorb carbon and the earth's ability to store water on land, which increases the risk of damage from heavy rains and flooding. Biodiversity loss leads to food and water insecurity and increases the risk of infectious diseases. We need to take concrete action now so that we can pass on a sustainable natural environment to future generations. Tokio Marine Group is in the process of analyzing the dependencies and impacts on nature in our business and across our portfolio and has been engaging in dialogue with a variety of stakeholders, including international organizations, governments, industry, academic institutions and civil society. In fact, we actively support customers who champion the achievement of the nature-positive status and the realization of a circular economy by offering insurance products and services.

We have identified eight material issues to underpin our sustainability strategy, by considering the external environment and their impact on the Group. Among them, "taking climate action," "improving disaster resilience" and "protecting the natural environment" are material issues directly linked to the climate change and nature-related challenges explained in this report. Tokio Marine Group is united in its efforts to address these challenges, as we seek to build a bridge to the future by realizing a sustainable society where people can live in safety and with peace of mind. We hope to achieve sustainable growth and be a presence that is truly needed 100 years from now.

Tokio Marine Group's Approach to Climate Change and Nature-related Challenges

❶ Corporate Philosophy and Sustainability Charter

As its Corporate Philosophy states, Tokio Marine Group continually strives to raise corporate value with customer trust as the foundation for all its activities. We have also established the Sustainability Charter, under which we are committed to fulfilling our corporate social responsibility (CSR) by implementing our Corporate Philosophy to achieve sustainable growth with society in line with the following six principles: providing products and services; respect for human dignity; protection of the global environment; contribution to local communities and societies; compliance; and communication. Solving nature-related challenges thus represents the actual application of our Corporate Philosophy.

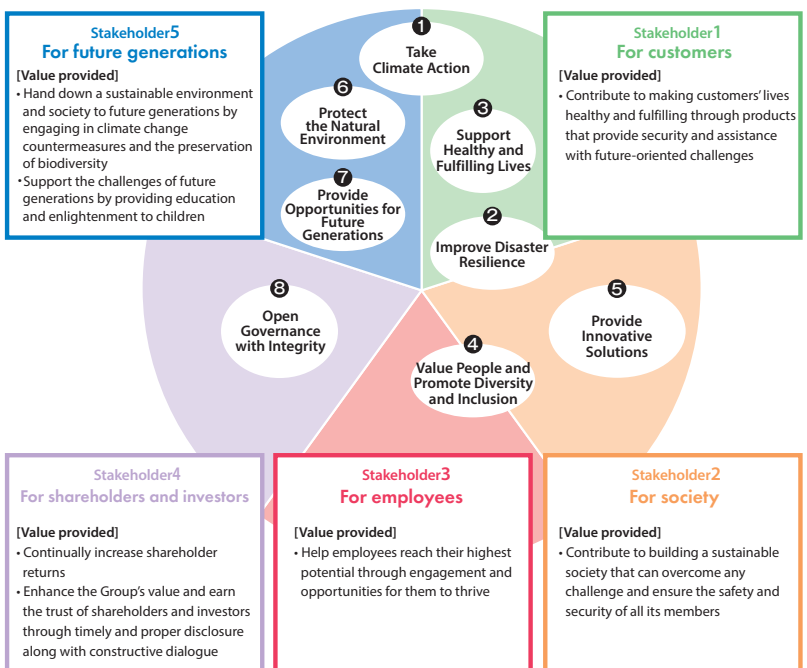
In 2021, we formulated a range of policies: the Tokio Marine Group Basic Policy on Environment to protect the global environment and create environmental value through business activities as a Group; the Tokio Marine Group Basic Policy on Human Rights that advocates respect for the human rights of all people; and the Tokio Marine Group Policy to Address Environmental and Social Risks for our insurance underwriting and investment and financing. In March 2023, we established the Tokio Marine Group Responsible Procurement Guidelines as we work closely with our business partners in the value chain on climate action, disaster resilience, reducing environmental impacts, the effective utilization of resources and preserving natural capital and biodiversity.

❷ Materiality and Conservation of Natural Capital and Biodiversity

Based on the strong belief that it is our duty to pass on a bright future to the next generation, we have positioned future generations as a stakeholder. In 2021, we clarified eight material issues (materiality) that we must address based on the value we provide to each type of stakeholder and the societal challenges that affect our insurance business. We determined these material issues by seeking advice from stakeholders such as customers, investors, business partners, corporate citizenship organizations and employees, as well as specialists and outside experts while referencing principal frameworks related to domestic and international societal challenges such as the SDGs, ISO 26000 and New Industry Vision.

Among the eight material issues, "taking climate action," "improving disaster resilience" and "protecting the natural environment" are directly linked to climate change mitigation and adaptation and to conserving natural capital and biodiversity.

Tokio Marine Group is working to resolve societal challenges in these material issues through all business activities.



❸ Key Initiatives for Climate Change and Nature-related Challenges

■ Common initiatives
■ Initiatives primarily focused on climate change
■ Initiatives primarily focused on nature-related challenges

- **1999** Launch the Mangrove Planting Project
- **2007** Announce the Mangrove Planting 100-Year Declaration
- **2009** Launch the Green Gift Project, Forest for the Future, and Green Lessons
- **2012** Launch the Disaster Prevention Lessons
- **2013** Achieves the carbon neutral status (for 11 consecutive years since then)
- **2015** Tokio Marine employees participate in TCFD
  Launch the 80K Trees project
- **2016** Announce the economic value of the ecosystem services provided through the Mangrove Planting Project
- **2017** Contribute to the publication of TCFD recommendations; Start to disclose climate-related information based on TCFD recommendations
- **2019** Announce the Mangrove-based Value Co-creation 100-Year Declaration
  Contribute to the establishment of the TCFD Consortium
- **2020** Announce the Basic Approach to Climate Change (revise every year since then)
- **2021** Establish the Sustainability Committee
- **2022** Participate in the GX League
  Join the TNFD Forum
  Participate in the 30 by 30 Alliance for Biodiversity established by Japan's Ministry of the Environment
  Launch the activity to protect and restore eelgrass bed
- **2023** Sign TNFD Early Adopters
- **2024** Start to disclose nature-related information based on TNFD recommendations
  Revise the Tokio Marine Group Basic Policy on Environment
- **2025** ID&E Group joins Tokio Marine Group
  Tokio Marine & Nichido's Forest for the Future (Higashiyama Forest Park, Aki City, Kochi Prefecture) certified as a Nature Coexistence Site by Japan's Ministry of the Environment
  Issue the Climate & Nature Report

❹ The Nexus between Climate Change and Nature-related Challenges, and Resilience

Climate change and nature-related challenges are inseparably linked. They also affect resilience. The intensification of natural disasters due to climate change causes severe damage to social infrastructure and natural capital, reducing both social and corporate resilience. Damage to ecosystems on land and in coastal areas accelerates climate change, threatening human and social sustainability. It is therefore more important than ever for Tokio Marine Group to understand the nexus and start appropriate initiatives. As an insurance group operating globally, we believe we can make considerable contributions through our insurance service. It is also necessary to offer greater value in pre- and post-event domains, such as disaster prevention, disaster mitigation, early recovery and recurrence prevention. These efforts in turn enhance social resilience, which ultimately ensures appropriate claims payments and helps reduce insurance premiums we receive from customers.

Over the years, Tokio Marine Group has worked to address these challenges through its business activities. Examples include the Mangrove Planting Project and Green Gift Project carried out by Tokio Marine & Nichido and the PHLY 80K Trees Initiative, a planting project launched by Philadelphia Insurance Companies in the United States. Mangrove trees have an exceptional ability to absorb and store carbon. They serve as a natural breakwater and protect communities and infrastructure in coastal areas, while also playing a crucial role in preserving biodiversity by purifying water and stabilizing soil. In addition, we are developing and providing solutions designed to reduce damage caused by natural disasters.

In terms of climate change, as a member of the TCFD, we have supported the publication of the TCFD recommendations and have disclosed climate-related financial information since 2017. We collaborate with relevant government and private-sector parties in Japan and overseas to formulate policy recommendations. We participated in the TCFD Insurer Pilot Group project, launched by the United Nations Environmental Programme Finance Initiative – Principles for Sustainable Insurance (UNEP FI-PSI), to support the 2021 publication of the report, "Insuring the Climate Transition." We also helped establish the TCFD Consortium as well as supported the release of the TCFD Guidance and "A Guide to Flood Risk Assessments for Enhanced TCFD Disclosures" of the Ministry of Land, Infrastructure, Transport and Tourism.

In terms of natural capital, we participated in the TNFD Forum in 2022 and began disclosing information in accordance with the TNFD recommendations in 2024. We took part in the Nature-Positive Insurance Working Group, an initiative of UNEP FI-PSI, and helped publish the report, "Insuring a Resilient Nature-Positive Future: Global Guide for Insurers on Setting Priority Actions for Nature" in 2024.

We will continue to make concerted efforts across the Group and take an integrated approach to addressing climate change and nature-related challenges and resilience so that we can actively assist the transition to a sustainable society.

Governance

Governance

Various initiatives related to climate change and nature-related challenges are discussed at a meeting of the Board of Directors after the discussion at the 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.

❶ Supervisory and Execution Structure

[Board of Directors]

The Board of Directors recognizes responding to climate change and nature-related challenges as a material management issue and assumes the role of supervising our sustainability strategy and initiatives. The Board deliberates on our sustainability policies including climate change and nature-related challenges, 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 initiatives 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 change and nature-related challenges, to fully utilize the knowledge of outside directors and outside Audit & Supervisory Board members.

Corporate Governance, Integrated Annual Report 2024 (P.102-117)

In fiscal 2023, the Board met four times to deliberate on and receive reports about our sustainability initiatives including climate action.

Date	Deliberated items
Apr. 2024	Activities of the Group's annual sustainability plan for fiscal 2023 (second half)
May 2024	Group's sustainability-related initiatives in fiscal 2023 and the annual plan for fiscal 2024
Oct. 2024	Activities of the Group's annual sustainability plan for fiscal 2024 (first half)
Mar. 2025	Activities of the Group's annual sustainability plan for fiscal 2024 (second half)

[Group Chief Sustainability Officer (CSUO)]

We established the new position of CSUO in April 2021 to accelerate the promotion of sustainability strategy, including climate change and nature-related challenges, across the entire Group. The CSUO 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.

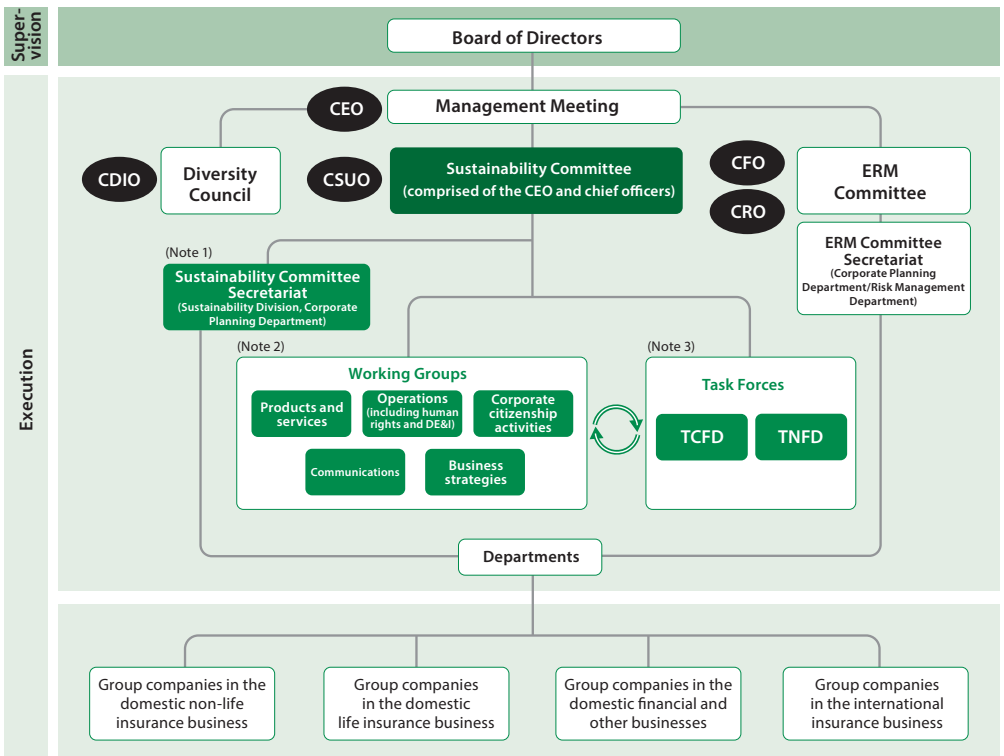
[Sustainability Committee]

Chaired by the CSUO and comprising such members as chief officers, including the CEO, CFO and CRO, and management of overseas Group companies, the Sustainability Committee was established in April 2021 to deliberate on details of our sustainability initiatives and policies on a global basis and monitor the progress of each initiative. The committee met four times in fiscal 2024 to promote and execute the sustainability strategy, formulate mid- to long-term targets (KPIs) related to sustainability, formulate and review annual plans and deliberate on other items. The committee is also responsible for risk management for the entire Group, including climate change and nature-related risks, based on enterprise risk management (ERM) through discussions at the ERM Committee.

[Division Dedicated to Promoting Sustainability]

The Sustainability Division of the Corporate Planning Department is a division dedicated to the promotion of the Group's sustainability initiatives, including climate change and nature-related challenges. This division is responsible for operating the Sustainability Committee and discussing how to promote sustainability initiatives with working groups and task forces in which relevant departments participate, including the Risk Management Department. The division shares matters discussed with Group companies through departments and organizes educational and support activities to encourage the globally consistent implementation of sustainability initiatives across the Group.

Tokio Marine Holdings' Organizational Structure for Promoting Sustainability



(Note 1) Secretariat (Sustainability Division, Corporate Planning Department): Operates the committee (as well as the working groups and task forces) and promotes the overall sustainability strategies across the Group.
(Note 2) Working Groups: Formulate and execute annual plans for respective issues, with the participation of 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 forces: Project teams formed by relevant members, including the Risk Management Department, to effectively respond to climate change and nature-related challenges of the entire Group.

❷ Compensation for Directors and Executive Officers

From fiscal 2022, we have incorporated non-financial indicators concerning priority issues of our sustainability strategy, including climate action, into the performance-linked compensation for Directors and Executive Officers. We use the progress toward our vision as an indicator, and after the first assessment at the Sustainability Committee, deliberation and final decision is made at the Compensation Committee.

❸ Stakeholder Engagement Policies

Recognizing that protecting the environment and creating environmental value are important responsibilities for future generations, Tokio Marine Group has formulated the Basic Policy on Environment, which demonstrates our commitment to realizing a safe, secure and sustainable society through every aspect of our corporate activities. Accordingly, based on dialogue, cooperation and collaboration with various stakeholders, we are working to take climate action, conserve natural capital and biodiversity, sustainably improve the environment, prevent, and reduce pollution. We have also formulated the Basic Policy on Human Rights to promote respect for human rights throughout our business activities, including our entire value chain, as respect for human rights of all people is the foundation for implementing our Corporate Philosophy.

In addition to our Basic Policy on Environment and Basic Policy on Human Rights, we have formulated the Policy to Address Environmental and Social Risks to identify risks that have a negative impact on the environment and society. This policy also stipulates that we undertake transactions with external partners based on factors such as their consideration of the environment and society.

These policies are presented on our corporate website and in our Sustainability Report and we also distribute a summary of key points of our approach to Group employees as an effort to ingrain these policies throughout the Group.


Strategies

Strategies

❶ Overview of Strategies

Tokio Marine Holdings identified "taking climate action," "improving disaster resilience" and "protecting the natural environment" as materialities and believes that climate change and nature-related issues should be a strategic theme in enhancing corporate value. There are many similarities between our two initiatives, namely achieving net zero emissions by 2050 and becoming nature positive, the aim of which is to protect and restore biodiversity. As such, we are executing transition plans to achieve the targets, including interim targets, by taking an integrated approach that also considers synergies and trade-offs.

Tokio Marine Group has identified the risks and opportunities associated with climate change and nature-related issues and analyzed their impacts on its business. In terms of climate change, we have performed an analysis of its impacts, including scenario analysis, on claims payments, asset management and business continuity. The results indicate that the Group can respond flexibly and be resilient to these impacts although natural disasters continue to intensify. As described in "The Nexus between Climate Change and Nature-related Challenges, and Resilience" on page 6, we believe initiatives to improve disaster resilience will help reduce the claims payments and insurance premiums we receive from customers. In terms of nature-related issues, we adopted the LEAP approach* to visualize the dependencies and impacts on nature in our business and across our portfolio and identified material sectors we need to prioritize. We will contribute to creating a society that is in harmony with nature through engagement such as dialogue with customers primarily in these material sectors.

Based on these analyses, we help customers and investment and financing recipients address issues as an insurance business operator (insurance product and service provider), institutional investor and asset manager. Specifically, we provide insurance products and services that support the transition to a decarbonized society, such as the promotion of renewable energy; insurance to compensate for the damage caused by natural disasters and pollution; and services that lead to the prevention and mitigation of damage. We also make sustainable investments. To enhance the disaster resilience of society as a whole, we are working to offer greater value in pre- and post-event domains, such as disaster prevention and mitigation, speedy recovery and reoccurrence prevention.

As a global company, we actively collaborate and cooperate with international organizations and others so that we can grow with our stakeholders. As a good corporate citizen, we also support local communities through mangrove planting and research and educational activities designed to enhance social resilience.

* Short for Locate, Evaluate, Assess and Prepare, LEAP is an integrated approach developed by the TNFD for assessing and managing nature-related issues.

❷ Plan for the transition to a decarbonized society

Tokio Marine Group has set the targets of achieving net-zero emissions by 2050 and realizing a society in harmony with nature and formulated a plan for transition encompassing interim targets. The three pillars of our plan for transition are providing solutions through insurance products and services as well as investment and financing that support the transition to a decarbonization society; dialogue (engagement) with business partners for the purpose of decarbonization; and insurance underwriting and investment and financing policies.

Aiming to build a society in harmony with nature, we are stepping up our efforts to promote certification of sites in harmony with nature, providing insurance through engagement with our business partners and supporting information disclosure based on the TNFD recommendations. We will review our plans by considering technological advances in decarbonization and nature-based solution domains as well as the expectations of society so that we can take effective action in line with the transition plan.

		Efforts to date	2026	2030	2050
Achieving a decarbonized society	Providing solutions	●2020: Acquired GCube specializing in underwriting insurance for renewable energy business ●2023: Established a company specializing in supporting corporate customers' decarbonization efforts ●2024: Launched the GX Project to promote joint development of decarbonization-related products on a Group basis	Decarbonization-related insurance underwritten 45 billion yen	Hold dialogue with 200 high-emission corporate customers and make deeper engagements with 160 companies among them*1	Achieve carbon neutrality (encompassing insurance underwriting and investment and financing)
	Dialogue (engagement)	●2022–: Provide decarbonization support to insurance customers and investment and financing recipients through constructive dialogue			
	Insurance underwriting and investment and financing policies	●2020–: Restrict new transactions related to coal-fired power generation plants and thermal coal mining projects ●2022–: Restrict new transactions related to oil and gas company extraction projects in the Arctic Circle and oil sands mining ●2023–: Restrict transactions*1 with companies if they fail to have decarbonization plans as of 2030			
Realizing a society in harmony with nature		●2022–: Joined the 30 by 30 Alliance for Biodiversity established by the Ministry of the Environment to commence initiatives for the certification of sites in harmony with nature ●2024–: Analyzed insurance customers and investment and financing recipients and identified "Industrials*3" and "Consumer Discretionary*4" as our material sectors Help realize a society in harmony with nature through engagement with businesses primarily in these material sectors Tokio Marine & Nichido Forest for the Future (Higashiyama Forest Park in Aki City, Kochi Prefecture) certified as a site in harmony with nature		Support the achievement of nature positivity Conservation, creation and registration of sites in harmony with nature that help achieve the 30 by 30 targets	Contribute to realizing a society in harmony with nature
Direct operations Corporate citizenship activities		●Reduce environmental impact associated with direct operations (introduction of renewable energy, etc.) ●Corporate citizenship activities • 1999: Launched mangrove planting • 2007: Mangrove Planting 100-Year Declaration • 2019: Mangrove-based Value Co-creation 100-Year Declaration • 2022: Launched activities to protect and restore eelgrass beds		Reduce GHG emissions from Tokio Marine Group by 60% (vs 2015) Use 100% of renewable electricity at Tokio Marine Group's major business facilities Switch all company-owned vehicles to electrified vehicles*2	

*1 Result and target of Tokio Marine & Nichido *2 Target of Tokio Marine & Nichido, Tokio Marine & Nichido Life and Nisshin Fire
*3 Trading Companies and Distributors, Industrial Machinery, Construction Machinery and Heavy Trucks, Air Freight and Logistics, Aerospace and Defense, etc.
*4 Automobile Manufacturers, Auto Parts and Equipment, Household Appliances, etc.

❸ Recognition of Risks and Opportunities

Regarding strategy, recognizing inherent risks is essential. Tokio Marine Group assumes an increase in climate change and nature-related risks and accordingly identifies and evaluates their impact on our business. Climate change-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. An analysis of the way in which weather events as well as changes in the disaster resilience of society and asset exposure may affect the Group is described later.

There are two types of nature-related risks. One is physical risks, which result from the degradation of nature and consequential loss of ecosystem services. The other is transition risks, which stem from a misalignment of economic actors with actions aimed at protecting and restoring nature or reducing negative impacts on nature. Nature-related opportunities are generated by creating positive impacts on nature or mitigating negative impacts on nature.

The chart on the right shows examples of events for each risk and opportunity based on the TCFD/TNFD recommendations and examples of related risks and opportunities in the Group's business activities.

		Examples of events	Examples of risks to the Group's business activities	Time frame
Physical risks	Acute	• Potential for growing frequency and scale of natural disasters • Occurrence and expansion of damage due to the reduction in soil water retention capacity and coastal erosion	• Drop in insurance profits (impact on claims payments, etc.) • Impact on business continuity caused by damage to buildings and other facilities at bases	Short term or longer
	Chronic	• Rise temperature • Other weather changes, such as droughts and heat waves • Rising sea levels • Impact on arthropod-borne infectious diseases		Medium to long term
Transition risks	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 investment and financing recipients and the value of the assets held by Tokio Marine Group due to higher carbon prices • Impact on liability insurance payments	Medium to long term
	Technology	• Progress in technological innovation toward the transition to a decarbonized society and a society in harmony with nature	• Decrease in the corporate value of investment and financing recipients whose efforts for the transition to a decarbonized society and a society in harmony with nature are insufficient and in the value of the assets held by Tokio Marine Group • Decline in revenue due to technological innovation and inability to ascertain changes in customer needs	Medium to long term
	Markets	• Changes in the demand for and supply of products and services		Short term or longer
	Reputation	• Changing customer and public awareness of initiatives for transitioning to a decarbonized society and a society in harmony with nature	• Reputational damage due to Tokio Marine Group's efforts being deemed inappropriate	Short term or longer
Opportunities	Resource efficiency, energy sources, products and services, markets and resilience	• Demand for products and services aligned with changes in energy sources and designed to increase resilience; changes in public awareness	• Dramatic increases in insurance needs related to renewable energy and nature-related projects • Increases in opportunities to gain insurance profits and for investment and financing on the back of companies' increasing insurance associated with the transition to a decarbonized society and a society in harmony with nature • Increases in disaster prevention and mitigation needs aimed at disaster resilience	Short term or longer

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

❹ Climate Change Analysis

In terms of climate change, we have analyzed its impacts, such as through scenario analysis, on claims payments, asset management and business continuity. 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. 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.i

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 the change in our insurance claims paid 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 our insurance claims paid of natural disasters resulting from increasingly severe climate change.

Future projections of climate change scenarios (+2°C, +4°C, etc.) are subject to uncertainties, as described later. In assessing the impact of climate change, it is also important to evaluate not only weather phenomena but also the disaster resilience 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.

(1) Changes in Weather Events

How a weather event will change due to the impact of climate change and the level of confidence of such an impact forecast will vary depending on the type of weather event. Figure 1 shows the certainty of climate change impact projections by weather event type. As seen in the figure, the level of 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). Confidence in the impact of climate change on wildfire has substantially increased in recent scientific literature.

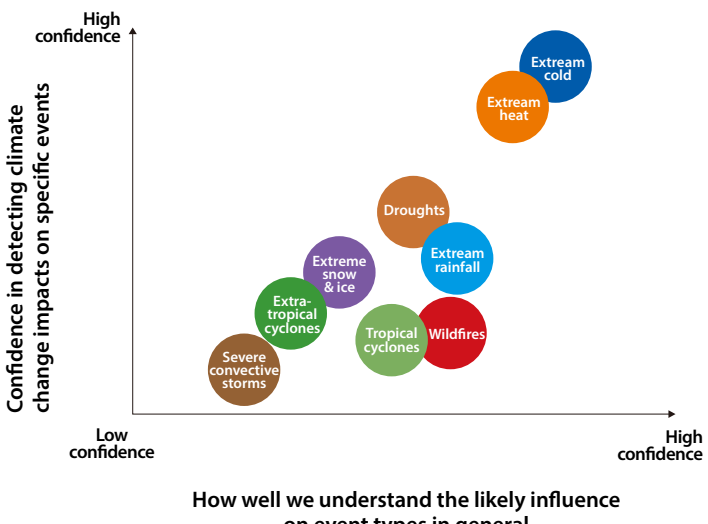


Figure 1: Confidence of impact forecasts of climate change

Source: Tokio Marine Holdings based on material prepared by the U.S. National Oceanic and Atmospheric Administration (2023)

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.

(1)-a Impact of Climate Change on Heavy Rains

The frequency and intensity of heavy rains have increased in many regions due to climate change. In Japan, the frequency of heavy rains has been on the rise since 1900 (Figure 2). The IPCC Sixth Assessment Report states that the intensity (precipitation) of heavy rains will increase by approximately 7% for every 1°C temperature rise. It has also been reported that climate change is likely to increase flood risk significantly, particularly in flood-prone regions.

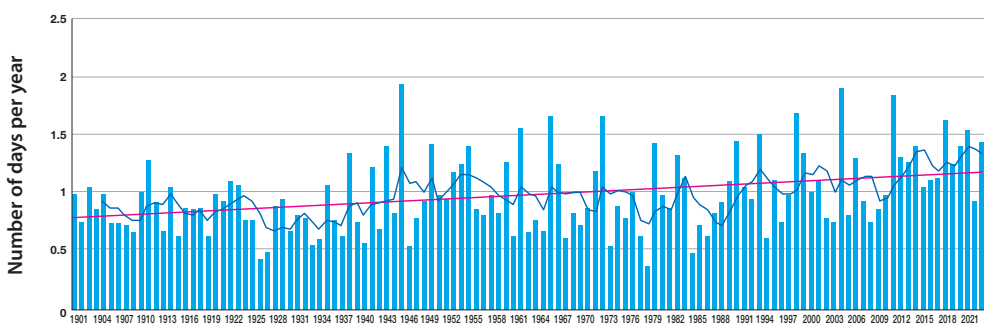


Figure 2: Days per year with daily precipitation of 100 mm or more

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

(1)-b Impact of Climate Change on Tropical Cyclones

Atmospheric and oceanic large-scale circulations (e.g., El Niño, Atlantic Multidecadal Oscillation 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 confidence 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).

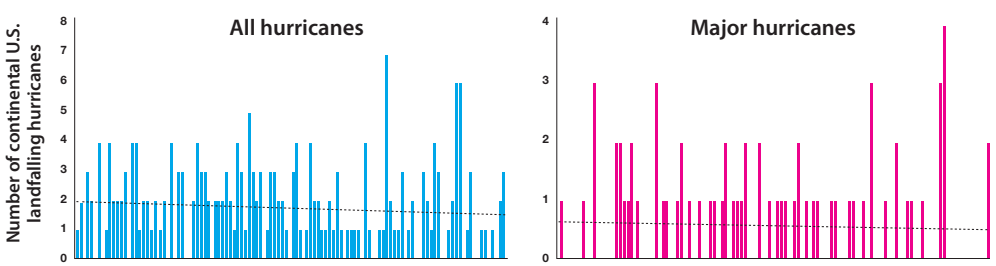


Figure 3: Number of hurricanes making landfall in the United States

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).

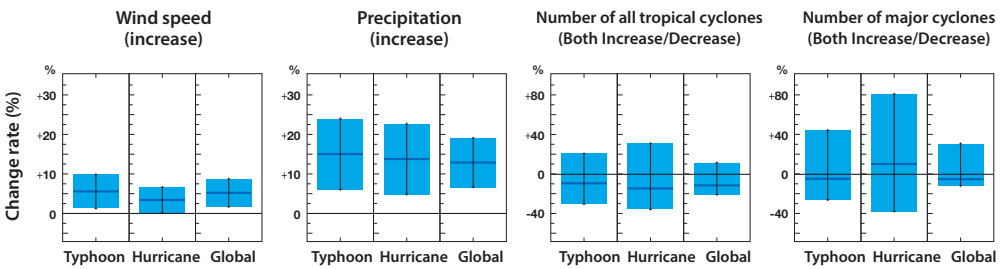


Figure 4: Changes in tropical cyclones due to a temperature change of +2°C

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

* 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/BAMS-D-18-0194.1 (© American Meteorological Society. Used with permission.)

(2) Changes in Disaster Resilience in Society and Asset Exposure

As shown in Figure 2 on page 16, 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.

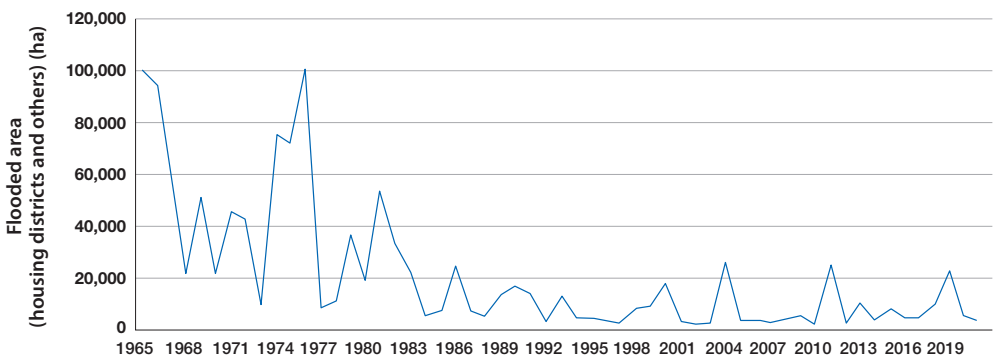


Figure 5: Areas inundated by floods (ha)

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

The amount of insurance claims 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 disaster resilience to disasters and in asset exposure are essential in predicting the impacts of natural disasters.

(2)-a Changes in Disaster Resilience 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.

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 large hurricanes.

In keeping with the move toward strengthening resilience worldwide, Tokio Marine Group has been contributing to greater resilience of the entire society by offering greater value of its insurance products in the pre- and post-event domains, such as disaster prevention and mitigation, speedy recovery and reoccurrence prevention.

(2)-b 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 2020 to 2050, even though the total number of general households in the country is projected to decline 5.6% 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.

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.

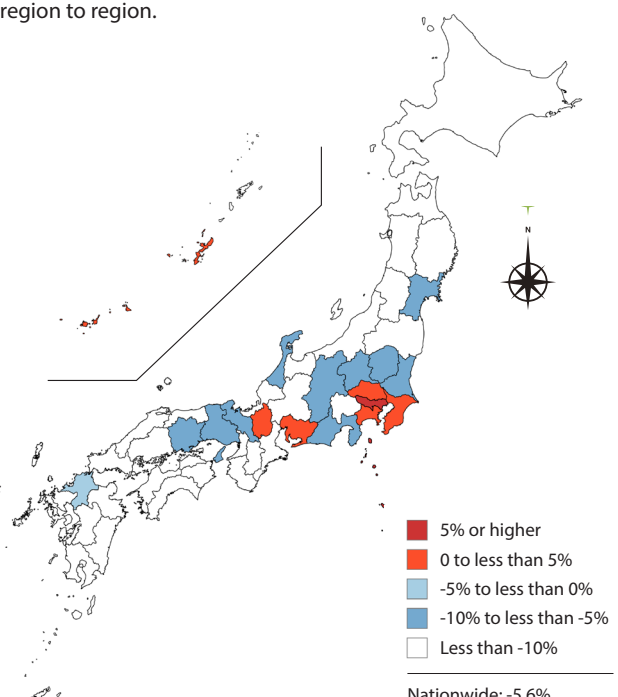


Figure 6: Rate of increase in the number of households from 2020 to 2050

Source: National Institute of Population and Social Security Research, "Number of Household Projections for Japan (Estimates by prefecture) (2024)"

Changes in the exposure geographic distribution are important in considering natural disaster damage both in Japan and overseas. In the United States, insurance 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 insurance loss is mostly a result of these factors.

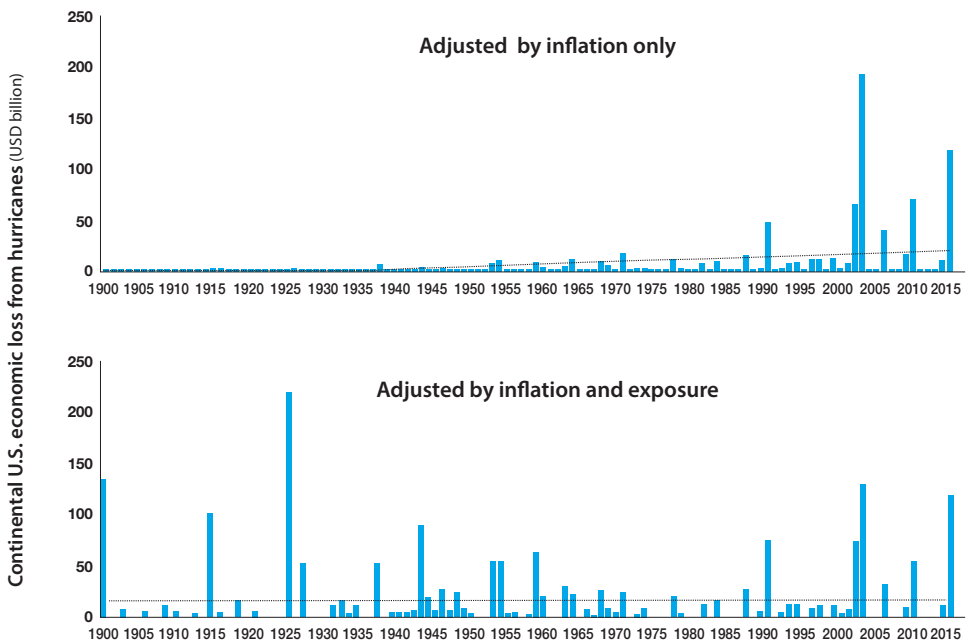


Figure 7: Insurance loss due to hurricanes on the U.S. mainland

Tokio Marine Holdings based on insurance loss data of Collins and Lowe (2001)* and insurance loss data quired by the Company*

* Collins, D. J., and Lowe, S. P. (2001). A macro validation dataset for U.S. hurricane models. Casualty Actuarial Society, Winter Forum, pp. 217–252

(3) Incurred Losses in the Recent Major Natural Disasters

The table below shows the recent major natural disasters and their incurred losses. In Japan and the United States, disasters cause a certain level of damage each year that involves insurance claims payments. As such, we enforce appropriate risk control by leveraging risk diversification and reinsurance.

	Domestic*1	Direct premiums written*2	Overseas*1	Net incurred losses*2
2020	Torrential rain in July	¥32.4 billion		
	Typhoon Haishen	¥30.6 billion		
2021	Torrential rain in August	¥11.5 billion	Hurricane Ida	¥18.4 billion
	Typhoon Lupit	¥4.5 billion	Cold wave in Texas	¥17.8 billion
2022	Typhoon Nanmadol	¥33.2 billion	Hurricane Ian	¥30.6 billion
	Typhoon Talas	¥15.2 billion	Winter Storm Elliott	¥15.5 billion
2023	Hail disaster in Gunma and Tochigi in July	¥25.4 billion	Wildfire in Hawaii	¥36.1 billion
	Typhoon Mawar	¥10.3 billion		
	Typhoon Yun-yeung	¥6.6 billion		
2024	Hailstorm in Hyogo in April	¥50.5 billion	Hurricane Helene	¥19.9 billion
	Typhoon Shanshan	¥16.2 billion	Hurricane Milton	¥11.0 billion
2025	Hailstorm in the Kanto and Tokai regions in March	¥12.5 billion		

*1 Total of Tokio Marine & Nichido, Nisshin Fire and E. design Insurance
*2 Before tax

Column **Impact of Climate Change on Wildfires**

The IPCC Sixth Assessment Report finds that climate change is increasing the frequency and severity of wildfires worldwide. Rising temperatures and shifting precipitation patterns are contributing to drier conditions and more fire-prone weather in many regions.

The report projects that at 4°C of warming, the global burned area could increase by 50–70%, with fire frequency rising by about 30%. In the United States, there has been a large increase in area burned observed over the past 20 years (see the figure below).

Wildfires will exacerbate climate change by destroying forests, which are natural carbon sinks, releasing stored CO_2, methane, and other greenhouse gases into the atmosphere.

We are improving the methods we use for quantitative assessment to determine the risk of various natural disasters, including wildfires, that may affect our profits.

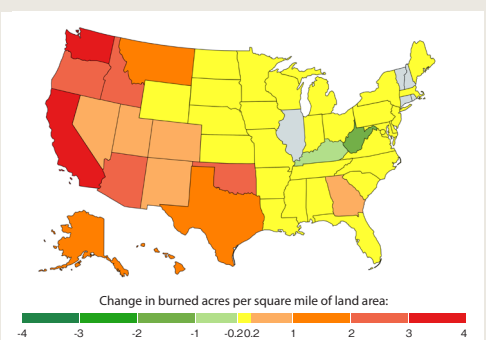


Figure: Changes in Annual Burned Acreagek by State Between 1984–2002 and 2003–2021
Source: U.S. Environmental Protection Agency

Impact on Asset Management

Climate change poses transition risks as well as the physical risks described in the preceding pages. Transition risks refer to risks that may impair the corporate value of our investment recipients and affect the business of Tokio Marine Group in the same way that physical risks do. Transition risks arise due to rapid changes that take place as the world accelerates its decarbonization efforts, including tightening laws and regulations, technological innovation, fluctuations in asset value as well as changes in the investment environment and customer needs.

The Group is working to reduce the total amount of shares it holds as business-related equities and conduct engagement and other means of mitigating the negative impacts described above.

We estimate the impact of physical and 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 quantify the impact on corporate value due to changes in scenario variables (carbon prices, energy demand, fuel prices, emissions, temperature, etc.) based on scenarios provided by The Network of Central Banks and Supervisors for Greening the Financial System (NGFS).

Specifically, we looked at the Group's assets under management (equities, corporate bonds, CMBS and government bonds) as of March 31, 2025. To assess physical risks, we compared the pre-simulation asset value as of March 31, 2025, with the post-simulation asset value following the two scenarios below. To assess transition risks, we compared the asset value when current policies continue to 2050[*1] with the post-simulation asset value following the two scenarios below. We then quantified both risks. The simulation results on the impact on asset value between now and 2050 are as follows:

1. Orderly: Net Zero 2050 (Assuming a temperature rise suppressed to 1.5°C and net zero CO_2 emission both by 2050)
2. Disorderly: Delayed Transition (Assuming a 1.8°C temperature rise by 2050 due to delayed policy changes)

*1 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

	Physical risks		Transition risks	
	Orderly	Disorderly	Orderly	Disorderly
Total	**-1.3%**	**-1.4%**	**-3.2%**	**-1.4%**
Equities	-4.4%	-4.8%	-18.4%	-6.5%
Corporate bonds	-0.7%	-0.8%	-2.2%	-1.4%
CMBS	-	-	-0.7%	-1.1%
Government bonds	-0.6%	-0.6%	-0.1%	-0.2%

* 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. Since this and other quantification models of climate change are still in the development stage, undergoing upgrades based on the latest research findings, we don't use the data shown above in our management decision-making process yet, but will continue to carry out research and investigations to explore more appropriate ways to utilize such quantification modeling methods.

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) caused by climate change on our operations. Accordingly, we 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 provision 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 an increase in weather disasters (such as heavy rains and floods) caused by climate change on our operations. Accordingly, we 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.

◆ Findings from the Analysis of Water-Related Risks at Our Business Offices in Japan

In fiscal 2023, in an effort to understand water-related risks facing our business offices in Japan, we analyzed and assessed water-related physical risks (flood inundation and storm surge, landslide disasters, etc.) at our consolidated subsidiaries in Japan and some insurance agents* of Tokio Marine & Nichido by using the digital national land information provided by the Ministry of Land, Infrastructure, Transport and Tourism. As a result, among the 1,154 business offices analyzed (489 business offices of Group companies in Japan and 665 business offices of Tokio Marine & Nichido's insurance agents), 203 business offices are located in areas with high risk of flooding, while 12 are in areas with high risk of landslide disasters. We have already investigated and analyzed the flood risk at our business offices and have not detected any notable negative impacts associated with the risk at this point. In addition, each office has independently implemented crisis management measures. Nonetheless, these water-related risks may become increasingly apparent in the future, following the rise in the sea level and more frequent heavy rains due to global warming as well as changes in land use. Thus, in addition to the crisis management measures of each office, we will promote initiatives to educate and raise awareness of employees and other related parties.

* Top-tier agents of Tokio Marine & Nichido, designated as "TOP QUALITY" agents, and Tokio Marine & Nichido Partners, wholly owned insurance agents of Tokio Marine & Nichido

Findings of Analysis of Our Business Offices in Japan (Including the Value Chain): Number of Business Offices Located in Priority Locations Exposed to Flood Immersion and Landslide Risks

No. of business offices analyzed		Located in areas with high risk of flood inundation	Located in areas with high risk of landslide disasters
Domestic Group companies	489	86	3
Insurance agents of Tokio Marine & Nichido	665	117	9
Total	**1,154**	**203**	**12**

[Data Sources]
- Flood immersion risk: Based on the digital national land information (areas subject to possible immersion by floods) (by river) (Ministry of Land, Infrastructure, Transport and Tourism) https://nlftp.mlit.go.jp/ksj/gml/datalist/KsjTmplt-A31a-v4_0.html
- Landslide disaster risk: Based on the digital national land information (areas prone to landslide disasters) (Ministry of Land, Infrastructure, Transport and Tourism) https://nlftp.mlit.go.jp/ksj/gml/datalist/KsjTmplt-A33-v2_0.html

❺ Nature-related Issue Analysis

Tokio Marine Group globally engages in business revolved around insurance. Similar to the effects of GHG emissions on climate action, it is important to recognize and reduce the dependencies and impacts not only of our own operations but also of businesses and value chains of insurance cutomers as well as investment and financing recipients on natural capital. For this reason, we assessed the operations of Tokio Marine Group, including its value chain, and conducted environmental surveys to ensure that 29 Business operations located in nature conservation and similar areas (sales offices of Group companies and major insurance agencies in Japan) do not have significant negative impacts on natural capital and biodiversity.

In terms of businesses and value chains of insurance customers as well as investment and financing recipients, we believe it is important to identify the sectors, value chains and regions that have high dependencies and impacts on natural capital in our insurance underwriting and investment and financing portfolios and then use the findings for our nature-related risk management and capturing new business opportunities as well as at customers and our investment and financing recipients. This report focuses on the detailed analysis of insurance underwriting and investment and financing portfolios and summarizes nature-related risks and opportunities in our business as well as future policies.

● Overview of Approach Adopted to Analyze Insurance Underwriting and Investment and Financing Portfolios

In fiscal 2023, Tokio Marine Group analyzed insurance underwriting and investment and financing portfolios of Tokio Marine & Nichido using the ENCORE[*1] analysis tool to identify nature-related material sectors and their dependencies and impacts on natural capital (STEP 1 and STEP 2 in the right chart).

*1 Short for exploring natural capital opportunities, risks and exposure, ENCORE is a tool to assess the potential dependencies and impacts of business activities on natural capital and biodiversity

In fiscal 2024, to deepen our understanding on the dependencies and impacts on natural capital in the material sectors identified in fiscal 2023, we targeted the automobile manufacturing industry for the LEAP approach analysis (STEP 3). We chose this industry because it is considered high risk, as listed in the TNFD/TCFD's list of material sectors, and also because of its high relevance to nature-related business opportunities for Tokio Marine, which operates insurance and solution businesses. The analysis was conducted using the LEAP approach, as follows (STEP 4):

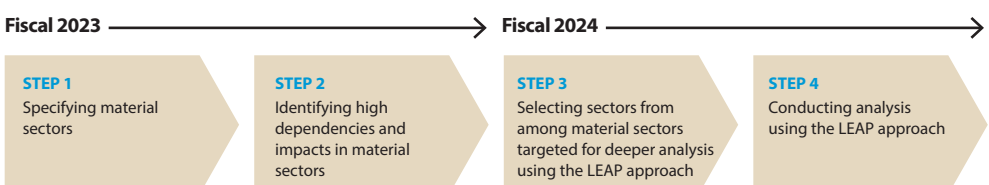
Locate: Automobile manufacturers, tire manufacturers and battery manufacturers were selected for analysis as their businesses involve processes with high dependencies and impacts on natural capital among the value chain of the automobile manufacturing industry.

Evaluate: Identify priority areas in which the dependencies and impacts on natural capital are high, from among vehicle assembly sites run directly by automobile manufacturers as well as tire/battery manufacturing sites in the value chain.

Assess: Identify nature-related risks and opportunities that customers as well as investment and financing recipients have in the priority areas through assessment.

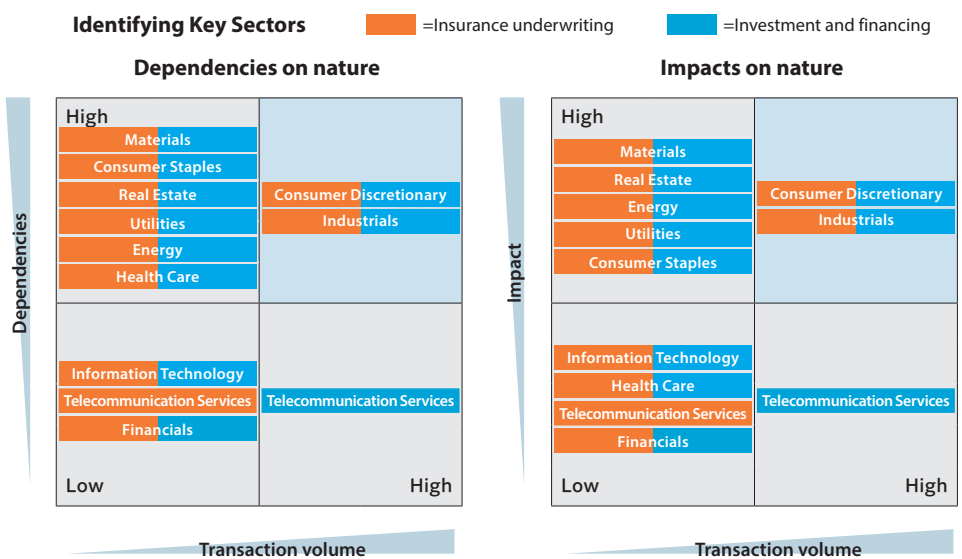
Prepare: Consider our future policies regarding the major nature-related risks and opportunities that have been identified.

Approach taken to analyze insurance underwriting and investment and financing portfolios



● STEP 1: Specifying Material Sectors

Tokio Marine Group underwrites insurance and provides investment and financing for various companies. We thus need to identify priority sectors in our portfolios to effectively respond to nature-related risks and opportunities. In fiscal 2023, we performed ENCORE analysis on insurance underwriting (insurance policies with companies*2) and investment and financing (domestic listed equities and domestic bonds) recipients of Tokio Marine & Nichido, which is responsible for most of the corporate transactions in the Group. The analysis was conducted using the two axes of "dependencies/impacts" and "transaction volume in insurance underwriting and investment and financing portfolios" as defined in the ENCORE analysis tool. Consequently, we identified "Consumer Discretionary*3" and "Industrials*4" as our material sectors.



*2 Listed companies with 1,000 or more employees
*3 Consumer Discretionary: Automobile Manufacturers, Auto Parts and Equipment, Household Appliances, etc.
*4 Industrials: Trading Companies and Distributors, Industrial Machinery, Construction Machinery and Heavy Trucks, Air Freight and Logistics, Aerospace and Defense, etc.

● STEP 2: Identifying High Dependencies and Impacts in Material Sectors

We analyzed our climate- and nature-related dependencies and impacts in the identified material sectors and found that our dependencies and impacts are high on the following ecosystem services and impact drivers of natural capital, respectively. (See Appendix 1 for detailed analysis.)

In the Consumer Discretionary category, our dependencies are high on the ecosystem services of flood and storm protection, groundwater, surface water, water flow regulation and mediation of sensory impacts. Meanwhile, we have high impacts on natural capital through greenhouse gas (GHG) emissions, soil pollutants, water pollutants, water use, solid waste, non-GHG air pollution and light and noise pollution.

In the Industrials category, we have high dependencies on the ecosystem services of flood and storm protection and climate regulation, while we cause high impacts on natural capital through GHG emissions, soil pollutants, water pollutants, non-GHG air pollution and light and noise pollution.

Both the Consumer Discretionary and Industrials sectors show high dependencies and impacts on

■ Dependencies on nature

Ecosystem Services	Flood & Storm Regulation	Ground Water	Surface Water	Water FlowRegulation	Mediation of Sensory Impacts	Climate Regulation	Water Quality	Dilution by Atmosphere & Ecosystems	Mass Stabilization & Erosion Control	Filtration	Ventilation
Consumer Discretionary											
Industrials											

■ Impacts on nature

Impact Drivers	GHG Emissions	Soil Pollutants	Water Pollutants	Water Use	Solid Waste	Non-GHG Air Pollutants	Light and Noise Pollution	Terrestrial Ecosystem Use	Marine Ecosystem Use
Consumer Discretionary									
Industrials									

Low — High

water-related items, GHG emissions and land, which indicates that the relationship with natural capital is fundamental to our insurance underwriting and investment and financing portfolios.

● STEP 3: Selecting Subsectors from among Material Sectors Targeted for Deeper Analysis Using the LEAP Approach

To make use of the analysis results obtained at STEP 1 and STEP 2 to the enhancement of our nature-related risk management and the development of business opportunities, we must fully understand the value chain structure, activities and products of each sector and analyze their nature-related risks in detail. There are various subsectors within the Consumer Discretionary and Industrials sectors, which were identified as material. Therefore, it is necessary to identify these subsectors first to carry out effective analysis using the LEAP approach.

Sectors	Subsectors	Sectors listed in the TNFD/TCFD's list of priority sectors	Business oppor-tunities for the Company	Data availability, others*5
Consumer discretionary	Automotive Parts and Equipment		◎	○
	Automobile Manufacturing	○	◎	○
	Furniture and Decoration	○	○	○
	Household Appliances	○	○	
	Motorcycle Manufacturing	○	◎	
Industrials	Aerospace and Defense	○	○	
	Agricultural Machinery	○	○	
	Air Freight and Logistics	○	◎	
	Construction Machinery and Heavy Trucks		○	
	Heavy-duty Electric Machinery	○	○	
	Industrial Machinery		○	
	Trading Companies and Distributors	○	◎	

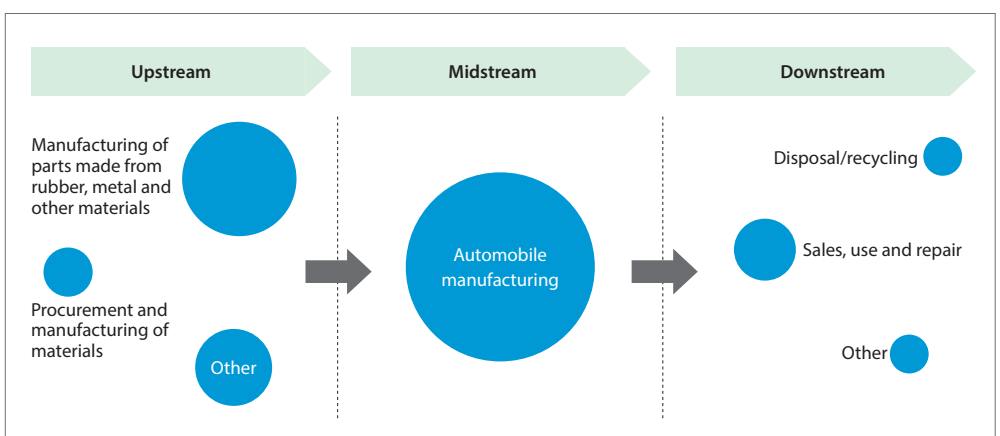
*5 Including the possibility of target and objective setting in line with the Sustainability Accounting Standards Board (SASB)

Subsectors are shown in the figure at the lower left. They were selected from several perspectives: whether they belong to the sectors listed in the TNFD/TCFD's list of priority sectors; whether they are associated with our nature-related business opportunities such as the provision of insurance and solution businesses (subsectors whose average impact on nature is high in our analysis on insurance underwriting and investment and financing portfolios using the ENCORE analysis tool, and for which we are better positioned to help address challenges); and whether it is possible to obtain data. After narrowing down the subsectors, we selected automobile manufacturing.

The actual analysis carried out using the LEAP approach is as described in STEP 4.

● STEP 4: Locate—Identifying Key Processes in the Value Chain

At the Locate stage, we identified processes fundamental to the relationship with nature in the automobile manufacturing industry's value chain. Specifically, we organized information on the automobile



● Each circle indicates the size of the trade volume of resource inputs (use) and outputs verified using EXIOBASE.

manufacturing industry's value chain and processes using the analysis results and findings obtained by the World Economic Forum and Organisation for Economic Co-operation and Development as a reference. We then verified the resource inputs (use) and outputs of each sector using EXIOBASE[*6] (Multi-Regional Environmentally Extended Supply-Use Table and Input-Output Table), covering all economic activities across national borders. Based on the findings, processes with a significant trade volume of resource inputs (use) and outputs were chosen in all stages from upstream to midstream and downstream, as shown in the chart from the previous page. Finally, referencing the Science Based Targets Network (SBTN) guidelines, we identified "manufacturing of parts made from rubber, metal and other materials" in the upstream stage, and "vehicle manufacturing" in the midstream stage as processes fundamental to the relationship with nature.

*6 EXIOBASE: A global, detailed multi-regional economic database that includes environmental data, containing the resource inputs and outputs of each sector.

● STEP 4: Evaluate—Identifying Priority Areas

At the Evaluate stage, we selected major businesses from our insurance underwriting and investment and financing portfolios for analysis that belong to the automobile manufacturing industry identified at STEP 3 and that have processes in the value chain identified at the Locate stage. Areas where high nature-related risks were identified as follows.

The results of analysis in "identifying high dependencies and impacts in material sectors" carried out at STEP 2 indicate that our portfolios have high dependencies and impacts on GHG emissions, water and land. GHG emissions were excluded from our analysis because engagement is already underway to carry out analyses among insurance customers and investment and financing recipients aimed at reducing GHG emissions. We thus focused on water and land instead. Specifically, we analyzed the following sites, using the Aqueduct[*7] tools that enable the assessment of the dependencies and impacts on water and the WWF Risk Filter Suite tools[*8], which enable an assessment of dependencies and impacts on land and biodiversity.

Sites subject to analysis[*9]

- Manufacturing sites of 10 automobile manufacturers (140 in Japan and 334 overseas)
- Traction battery manufacturing sites and R&D facilities of 10 automobile manufacturers (29 in Japan and 35 overseas)
- Manufacturing sites of 5 tire manufacturers (64 in Japan and 76 overseas)
- Manufacturing sites of 5 battery manufacturers (20 in Japan and 313 overseas)

The analysis using the Aqueduct tools revealed that 158 sites of automobile manufacturers (primarily in Thailand, China and the United States), 67 sites of tire manufacturers (primarily in Thailand, the United States, China and India) and 20 sites of traction battery manufacturers (primarily in China, the United States, Japan and Germany) were located in areas with either extremely high or high water risks. We also analyzed the dependencies and impacts on land and biodiversity in these areas using the WWF Risk Filter Suite tools and identified risks and opportunities at the Assess stage in STEP 4.

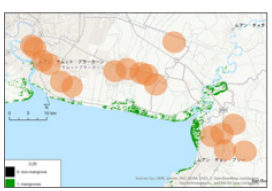
*7 Aqueduct: Water risk assessment tools developed by the World Resources Institute (WRI)
*8 WWF Risk Filter Suite: Risk assessment tools developed by the World Wide Fund for Nature (WWF). It consists of the Biodiversity Risk Filter used to assess biodiversity risks and the Water Risk Filter designed for water risks, allowing comprehensive analysis of risks including biodiversity, water and soil.
*9 Only manufacturing sites and R&D facilities are included. Sales offices are excluded.

● STEP 4: Assess—Identifying Risks and Opportunities in the Priority Areas

At the Assess stage, we selected from the businesses identified at the Evaluate stage and carried out additional analyses of six leading firms while considering the aspect of engagement: two automobile manufacturers, two tire manufacturers and two battery manufacturers. We then identified the nature-related risks and opportunities of their sites and facilities located in the priority areas, based on the analysis results obtained using the WWF Risk Filter Suite tools and information published by the manufacturers (see the table on the next page).

- **Physical risks:** Water stress as well as the risk of tropical depression, such as cyclones, and extreme heat were found to be high in the priority areas. It also revealed that their production activities, which rely heavily on water resources, may be negatively impacted by the depletion of freshwater and an impact on ecosystem services.
- **Transition risks:** Pollution and reputation risks were identified at almost all target companies. More stringent regulations and a rising public awareness on the environment may negatively impact corporate trust and fund procurement.
- **Business opportunities:** The progress of electric vehicles was found to create opportunities, including improvements in technology and water reuse, for automobile and battery manufacturers. Specifically, resource conservation may be achieved through greater resource efficiency and cost reduction through the effective use and/or reuse of water resources.

We also carried out biome analyses[*10] on the manufacturing sites of each manufacturer. The findings confirmed that many manufacturing sites were located close to rivers, revealing the importance of water resources. When water stress is high in these areas, it is necessary for these manufacturers to be vigilant about the possibility of reduced productivity caused by changes in river flow and water quality as well as the environmental impact of water intake and discharge. For example, the analysis results have revealed that the majority of leading automobile and tire manufacturers have sites by the Gulf of Thailand where mangrove trees grow, indicating the possibility of mangrove planting and restoration to address these issues.



Geographical relationship between mangrove habitats and the manufacturing sites of automobile and tire manufacturers by the Gulf of Thailand ©ESRI Japan

See "Managing Climate Change and Nature-Related Risk Based on Enterprise Risk Management (ERM)" on page 49 and "Appendix 2: Nature-related Risks and their Transmission Channels in the Automobile Manufacturing Industry" on page 60.

*10 Biome analysis: Biome (such as rainforest) is a grouping of terrestrial ecosystems. The classification of biomes developed by the International Union for Conservation of Nature (IUCN) was used for the analysis. Representative biomes, where a large number of sites and facilities selected for analysis are located, were chosen and analyzed.

● STEP 4: Prepare—Future Response

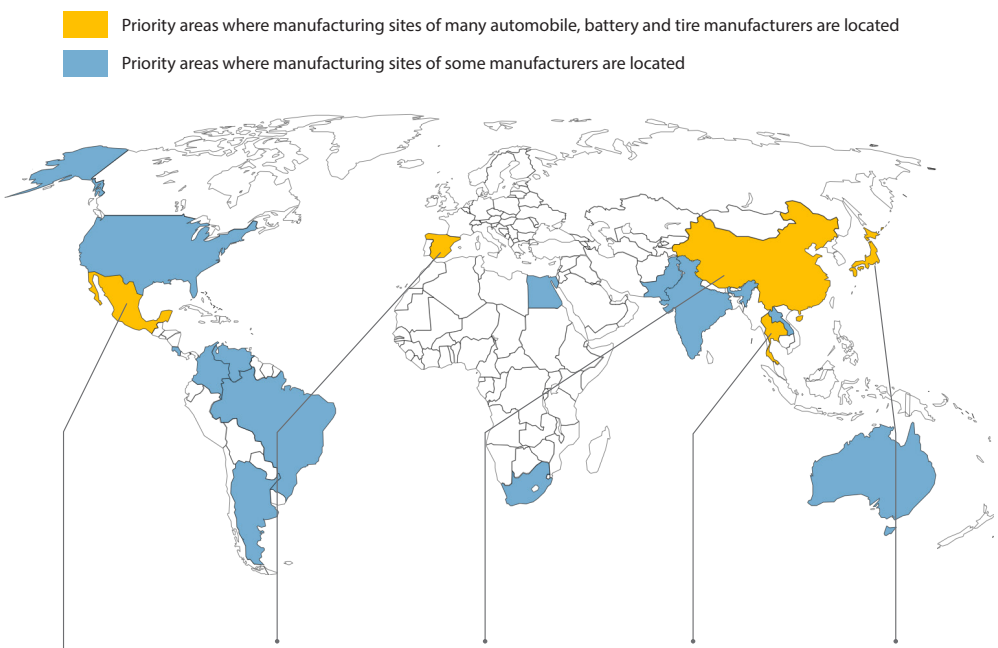
We intend to use nature-related risks and opportunities identified in the operations of leading automobile manufacturers to engage with insurance customers and investment and financing recipients. We will assist our corporate customers' business continuity against natural disasters, such as floods, typhoons and hurricanes, by providing insurance products and solutions. We will also support them through consulting services as they shift toward nature-positive management. Moreover, in our efforts to capture business opportunities, we will strive to help the automobile industry's efforts to develop technologies associated with electrification of vehicles through insurance and financing. These initiatives are aimed at developing business models that will lead to new mobility solutions and the transition to a circular economy.

Specific measures against the nature-related risks and opportunities we have identified will be discussed at and reported to the Sustainability Committee on a regular basis to support our efforts to become "nature positive" in 2030.

Risks and opportunities identified in the value chains of leading automobile manufacturers

Companies		Carmaker A	Carmaker B	Battery maker C	Battery maker D	Tire maker E	Tire maker F
Value chain		Direct operations	Direct operations	Battery parts production	Battery parts production	Rubber product production	Rubber product production
Operation sites		Japan, China, Thailand	Japan, China	China	China, Spain	China, Mexico, Thailand	China, Thailand
Risks and opportunities	Physical risks	Water stress, biodiversity	Water stress, biodiversity	Water stress, tropical cyclones, extreme heat	Water stress, tropical cyclones, extreme heat	Water stress, tropical cyclones, extreme heat	Water stress, landslides, tropical cyclones, extreme heat
	Transition risks	Pollution, reputational risks	Pollution, reputational risks	Pollution	Pollution	Pollution, freshwater species, reputational risks	Pollution, reputational risks
	Opportunities	Increased demand due to electrification of vehicles, recycling of water resources	Increased demand due to electrification of vehicles	Increased demand due to electrification of vehicles, improved testing efficiency	Increased demand due to electrification of vehicles	Effective use of water resources, recycling	Entry into nature busi-ness, recycling

Location map of risks in the automobile manufacturing sector in our portfolio



❻ 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.

Initiatives as an Insurance Company

(Providing Solutions through Insurance Products and Services)

Tokio Marine Group supports customers' efforts to realize a decarbonized society and a society in harmony with nature by providing solutions through its insurance products and services.

Tokio Marine & Nichido has established the GX Office, an organization dedicated to green transformation (GX), within the Marketing Strategy Department and has been focusing on the development and provision of insurance products and solutions aimed at realizing a decarbonized society. Specific offerings include insurance to assist renewable energy operators, insurance covering flood disaster risks, and risk advisory services to clean energy developers. In addition, we assist companies in formulating and implementing carbon-neutral business strategies. Globally, the GX Project was launched to share information and promote initiatives in the decarbonization field, promoting possible collaboration and exploring business expansion opportunities among the Group companies. To offer greater value, we launched the new Tokio Marine GX project in May 2025. GCube, a Group company and a global leading player specializing in underwriting insurance for renewable energy operators, will take the lead in implementing GX initiatives. We will make concerted efforts across the Group to research and develop insurance products and risk consulting services that help them manage risks associated with new technologies.

In realizing a society in harmony with nature, we are developing and providing services that will help resolve customers' nature-related issues. Specifically, Tokio Marine & Nichido offers several products,

such as soil decontamination costs insurance, to compensate for the costs of cleaning up soil pollution exceeding the Ministry of the Environment's standards. Another example is aquaculture insurance for fish farming being promoted by the Japanese government to counter a decline in marine resources, such as salmon, tuna and mackerel, and ensure their stable supplies. Moreover, Tokio Marine & Nichido has been striving for the transition to a circular economy. The concept regards products and raw materials that are otherwise discarded as new resources, which are reused without generating waste. As a global non-life insurance company, it exercises its strength of being able to collect various accident-related information and works together with partner companies to engage in initiatives such as reducing food loss and waste and promoting recovery and reuse of automotive parts.

[Insurance and Services to Promote the Spread of 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 of renewable energy power generation plants, insurance is indispensable as project financing will not be extended without insurance.

In 2020, Tokio Marine Group acquired GCube. The company launched its business in the 1990s when the renewable energy market was still in the early stage and there was not much demand for insurance. Currently, having eight out of the 10 world's leading renewable energy operators as its customers, GCube supports more than 2,000 projects in 38 countries, with its written premiums amounting to USD152 million in 2024.

Establishment	1987
Location	London, U.K.
Business content	Underwriting insurance specifically covering risks related to renewable energy business
Premiums written	Approx. USD152 million (fiscal 2024)
Insurance products	Construction insurance, cargo insurance for transporting materials, insurance after the completion of facility construction, etc.

Excellent underwriting capabilities and superior claims service capabilities are essential in underwriting insurance for renewable energy power plants.

GCube performs appropriate risk assessment and calculates insurance premiums based on a vast amount of loss data accumulated over 30 years since its foundation. An underwriting decision is made while considering factors such as the location of the power plant, the structural type of its foundation, equipment used by contractors and contracts with suppliers and contractors. Evaluating these factors requires a high level of expertise. GCube has made more than 4,000 claim payments since 2011, and its specialized adjusters (loss appraisers) give advice on loss prevention based on accident statistics.

Moreover, GCube strives to further enhance its underwriting capabilities by quantifying risks according to the service life and usage conditions of each equipment. The company also provides advisory services to customer operators, such as advising them on the conditions of insurance policies (setting an appropriate amount of deductible, etc.) according to each risk based on these quantified risks.

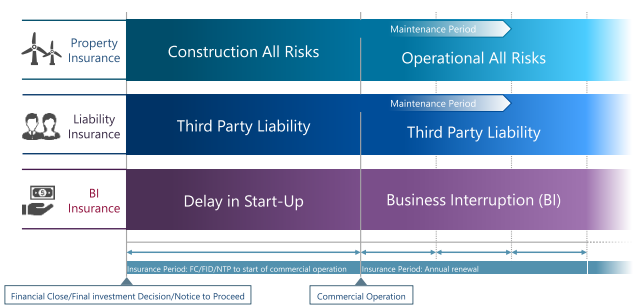
Report created by GCube

[Insurance and Services to Support Offshore Wind Power Generation]

Tokio Marine & Nichido has been underwriting insurance for offshore wind power generation projects across the world since 2013 when they were not yet widely known in Japan. The company is now regarded as one of the major international players in this field.

Offshore wind power generation projects, which require large-scale investment, often entail project financing and involve various parties, including the manufacturer of windmills and other contractors. Thus, an insurance package exclusively designed for such projects plays a crucial role. Such an insurance package offers comprehensive and seamless total support in order to cover a variety of risks faced by each party involved in constructing and operating wind farms. As a managing underwriter, Tokio Marine & Nichido offers globally competitive coverage in its insurance package. Contracts related to such projects vary by country or region. Thus, Tokio Marine & Nichido's insurance policy has been adjusted to their respective conditions to provide appropriate risk coverage. As for risks specific to Japan, the company has been actively promoting initiatives that harness its knowledge of maritime risks, which has been accumulated through its long history and tradition of providing hull and cargo insurance, and the experiences of underwriting insurance for marine development projects.

Determine various risks involved in each phase and create insurance package providing necessary coverage at a price reflecting the risks

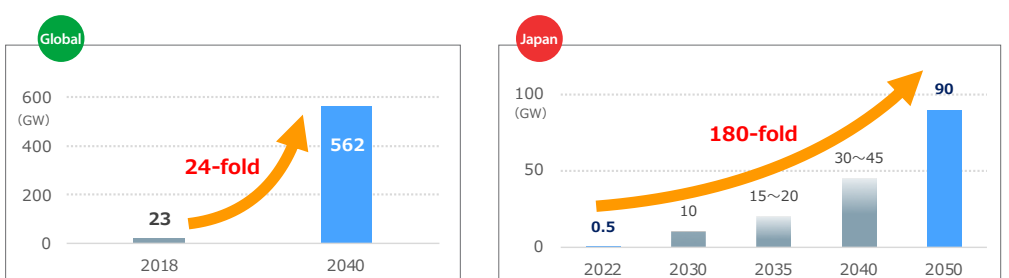


As offshore projects require preparations for typhoons and other natural disaster risks and pose greater challenges than land projects, we have made a range of efforts to counter these challenges. Given that Japan faces many natural disasters, we have built a risk model specific to the country through industry-academia collaboration with the Nippon Kaiji Kyokai (known as ClassNK) and Kyoto University.

Additionally, we have formulated the Guidelines for Marine Warranty Survey in Japan by applying our experiences in offshore wind power generation projects in Europe and modifying a marine warranty survey, which is common in Europe, to match the actual state of construction and other related contractors and weather conditions in Japan.

At Tokio Marine & Nichido, premiums related to offshore wind power generation increased by about 2.7 billion yen from fiscal 2020 to fiscal 2024. The number of projects is expected to increase further, and we anticipate continued, sharp market growth both in and outside Japan.

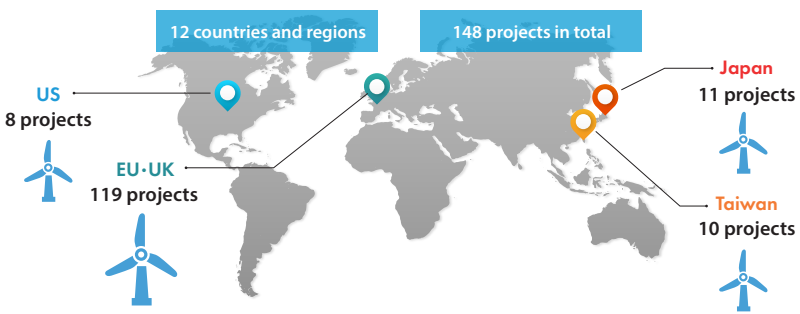
Electricity generated by offshore wind power



Source: Vision for Offshore Wind Power Industry (1st Draft), materials from the Japan Wind Power Association and partially surveyed by Tokio Marine Holdings

Tokio Marine & Nichido now has underwritten insurance for 111 projects in 12 countries and regions. Adding those underwritten by GCube, the Group has underwritten insurance for as many as 148 projects. Offshore wind power generation is said to play a crucial role in shifting our main power source to renewable energy. Going forward, we will continue to leverage the Group's strengths to generate synergies, support offshore wind power projects globally and contribute to the transition to a decarbonized society.

Projects for which Tokio Marine Group has underwritten insurance



[Insurance Package for Solar PPA Operators]

Tokio Marine & Nichido offers Insurance Package for Solar PPA Operators, an insurance product providing power purchase agreement (PPA) operators with comprehensive coverage for various risks, including the risk of damage to power generation facilities, third party liability risk arising from the management of facilities and risk of the user (company using the facilities) going bankrupt.

In recent years, a PPA model has drawn much attention on the back of the growing need to use renewable energy. It is a business model in which a third party installs its own renewable energy facilities on the roof of the user's building or within its premises by incurring the installation costs, and supplies generated power to the user while recovering these and other costs through a long-term PPA with the user. An increase in the introduction of renewable energy is expected to continue via this model, as it has the advantage of eliminating the associated initial cost for the user. There is, however, a risk that the originally planned cost recovery would be difficult for reasons such as unexpected and sudden accident during the term of the contract. By offering this insurance package, the company contributes to the promotion of renewable energy based on the solar PPA model.

[Guarantee Insurance for Electric Vehicles and Storage Batteries]

Guarantee insurance provides coverage for damage or loss caused by performance defects in products. By providing guarantee insurance, U.K. based Tokio Marine Kiln (TMK) supports the transition to a decarbonized society.

The spread of EVs, which do not emit CO_2, will lead to decarbonization, but buyers, especially those wishing to buy used EVs, are concerned about possible defects in the performance of batteries and other components. In response, TMK offers guarantee insurance for used EVs to cover the damage caused by performance defects or failure so that consumers can buy these EVs with a sense of reassurance. This will also lead to a longer lifespan of EVs, which in turn will reduce the disposal of raw materials and CO_2 emitted from the manufacturing processes.

For operators generating power using renewable energy, a gap between the amount of electricity generated and the demand for electricity poses a challenge, as the supply of renewable energy is unstable and is easily affected by weather. As a solution, systems to store electricity generated by operators have been drawing much attention. TMK also provides guarantee insurance for such systems and is contributing to the spread of the electricity storage systems as well as an expansion of the renewable energy power generation market.

Battery Energy Storage System

[Recovery and Reuse of Auto Parts from End-of-Life Vehicles]

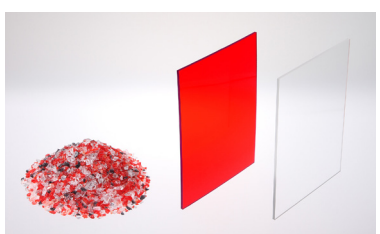
The Ellen MacArthur Foundation is an internationally well known organization promoting circular economy. It released a report entitled "Completing the picture: How the circular economy tackles climate change," which states that a transition to renewable energy, complemented by energy efficiency, can only address 55% of global GHG emissions while reducing the remaining 45% requires a circular economy and transformation of the way we make and use products.

Tokio Marine & Nichido, E. design Insurance and Nisshin Fire acquire end-of-life vehicles in exchange for the payment of insurance claims. The three companies collect materials from the vehicles' taillights and airbags through a network of auto dismantlers and work with a chemical manufacturer to recycle and reuse them again as raw materials.

This initiative both serves to reduce waste through circular economy and helps achieve decarbonization. For example, recycling acrylic resin from used taillights can reduce CO_2 emissions by 50% compared to newly manufactured acrylic resin.

As insurance companies handle many end-of-life vehicles, we will continue to contribute to the achievement of decarbonization and nature positivity by expanding the recovery and reuse of auto parts.

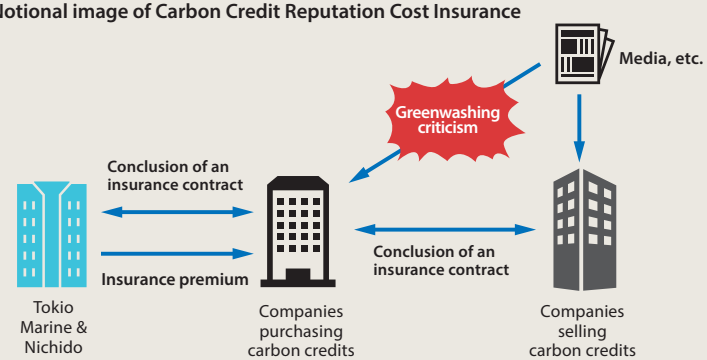
End-of-life vehicles


Acrylic resin recycled from end-of-life taillights

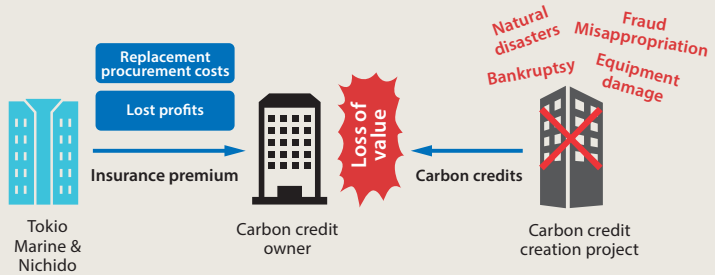
[Carbon Credits-related Insurance]

Detailed operational rules for the international trade in carbon credits were approved at the COP29 climate summit in 2024, which shows that there are growing expectations for carbon credits as a way to achieve carbon neutrality globally.

■ Notional image of Carbon Credit Reputation Cost Insurance



■ Notional image of Carbon Credit Response Cost Insurance



Tokio Marine & Nichido has been conducting engagement with companies that purchase and/or create carbon credits from a risk management perspective and developing the necessary insurance and solutions.

Using the knowledge acquired from this initiative, the company developed Carbon Credit Reputation Cost Insurance in July 2024 for companies that purchase carbon credits in the voluntary market. The insurance covers the costs of responding to greenwashing criticism and the consulting fees with specialized organizations. In February 2025, the company also introduced Carbon Credit Response Cost Insurance for carbon credit owners that compensates the insured for the costs of procuring replacement units when the value of carbon credit is damaged.

We will conduct closer engagement with leading companies that create and use carbon credits through these products, while helping enhance the risk management capacity of the carbon credit domain by participating in discussions with and providing information to government working groups and private organizations.

Tokio Marine & Nichido intends to help achieve carbon neutrality by developing insurance products and services that encourage the growth of the carbon credits market.

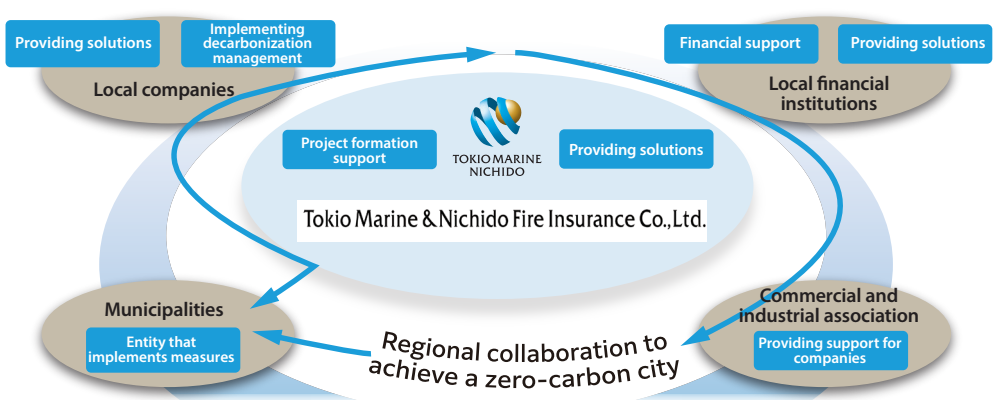
[Support for Realizing Regional Decarbonization]

To achieve regional decarbonization, it is important for stakeholders in the regional community to collaborate so that they can create a zero-carbon city together. Tokio Marine Group is working with local residents, such as by supporting project management to ensure inter-community collaboration and providing solutions to local companies promoting management aimed at decarbonization.

Nagano City established the Nagano Regional Decarbonization Promotion Council, and we have been acting as a secretariat together with other companies. The initiative was chosen as a model project by the Ministry of the Environment in fiscal 2024. We help organize recruitment seminars and workshops on GX-oriented recruitment and provide support to address management issues to successfully set up exemplary GX-oriented businesses through engagement.

Fukushima Prefecture collaborates with regional financial institutions and chambers of commerce to consider and implement decarbonization measures for companies in the region as part of the Fukushima Business Decarbonization Support Project. At the Study Group on Decarbonization Management for Small and Medium-sized Enterprises held in fiscal 2024, employees of financial institutions and commercial and industrial associations were present to discuss decarbonization management with companies and give them practical advice.

We will continue to work with residents of the community to help create a zero-carbon city.



[Engagement with Companies]

In September 2023, Tokio Marine & Nichido set an interim target of holding dialogue with 200 large corporate customers*1, which account for approximately 90% of the company's insurance-associated GHG emissions, and achieving Level 2 or higher engagement with more than 160 customers by 2030.

As of the end of fiscal 2024, we had dialogue of Level 2 or greater with 121 companies, which account for approximately 61% of the engagement target. Subsequently, we have made proposals on how to address challenges to promote decarbonatization or provided insurance underwriting and solutions. We also had dialogue primarily with 200 large corporate customers to help create a society in harmony with nature.

Level	Topics	Activities	Number of companies with which to have engagements
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.	50 companies
2	Make proposal based on identified issues	Provide concrete solutions after creating a shared understanding of issues with each company Support introduction of renewable energy, conduct risk assessment and underwrite insurance to mitigate risks Provide consultation services for climate change-related information disclosures and formulation of decarbonization plans, etc.	84 companies
3	Provide insurance and solutions	Support customers' transition through our pro-posed list of solutions and insurance services.	37 companies

* Companies listed in the Prime Market of the Tokyo Stock Exchange, selected from Tokio Marine Nichido's top 150 customers in terms of written insurance premiums and top 100 customers in terms of GHG emissions

Example of Engagement Implemented by Tokio Marine & Nichido

Engagement levels	Electric power company A (Tokyo Stock Exchange Prime Market)
Level 1 Identify issues	■ Make appropriate assessment of natural disaster risks when financing a new renewable energy generation business
Level 2 Make proposal based on identified issues	■ Harness our proprietary know-how to assess risks associated with renewable energy projects and propose the necessary insurance products
Level 3 Provide insurance and solutions	Provide the following insurance products and solutions: ■ Advisory on risk assessment and insurance procurement for renewable energy projects ■ Insurance products tailored to risks in each phase of renewable energy facility construction
New initiatives that help customers make progress with decarbonization	■ Following the launch of a new renewable energy project, achieve the target for reducing GHG emissions from business activities ahead of schedule ■ Revise the roadmap to achieve net zero by 2050

[Providing Solutions by Tokio Marine dR]

Companies' financial situations may be negatively impacted by various factors. They include physical damage to assets due to floods and other meteorological disasters caused by climate change; a loss of profits due to supply chain disruptions; and changes in policies, laws and regulations, technology and markets as we transition to a low-carbon economy. At the same time, these factors can also spawn opportunities for companies, such as cost savings achieved from improved resource efficiency and the development of new products and services. This is why investors are now demanding the disclosure of such information. Tokio Marine dR supports the identification, assessment, scenario analysis and information disclosure of climate-related risks and opportunities based on the climate-related disclosure standards.

The loss of natural capital and biodiversity is recognized as a global threat and challenge fundamental to the sustainability of human activities, as evidenced by the adoption of the Post-2020 Global Biodiversity Framework at the Conference of the Parties to the Convention on Biological Diversity (COP15). Against this background, companies now need to accurately understand the benefits and impacts of their business activities and take steps to mitigate the loss of natural capital and biodiversity and encourage their restoration. Tokio Marine dR helps companies identify areas in which their business activities interface with natural capital and biodiversity, evaluate dependencies and impacts, assess material risks and opportunities, develop countermeasures and support information disclosure based on the LEAP approach developed by the TNFD.

In addition, using the knowledge acquired from operating in the non-life insurance field, the company provides a wide range of services, including consultation on soil environmental assessment and soil pollution countermeasures as well as risk assessments of renewable energy power stations.

Examples of Climate Change and Natural Capital-related Services Provided by Tokio Marine dR

Service	Overview
Consultation on climate-related information disclosures	Provide support for the identification, assessment, scenario analysis and disclosure of sustainability-related information on climate-related risks and opportunities by applying the expertise on the assessment of natural disaster risks acquired over the years and a track record of helping companies adopt the TCFD recommendations.
Physical risk scenario analysis	Carry out a risk assessment of business facilities of companies against current and future meteorological disasters caused by climate change and help them formulate risk control measures and plans to adapt to climate change. Carry out scenario analysis of raw material and water procurement on request.
Consultation on setting SBT goals	Applying the track record of helping companies adopt ESG practices, provide support for setting GHG emissions reduction targets in line with the SBT initiative (such as by organizing items required for SBT application, developing action plans and building an internal consensus) and GHG emissions calculation, which represents basic data needed to set the targets (by verifying the validity of the calculation method, analyzing and organizing issues and developing a standard operating procedure for tab-ulation).
Support for nature-positive management (Help companies adopt the TNFD recommendations)	Provide support for clarifying the relationship between business activities and natural capital/biodiversity, identifying the dependencies and impacts on natural capital and biodiversity and assessing risks and opportunities based on the LEAP approach (a comprehensive method used to assess the dependencies, impacts, risks and opportunities of nature-related issues developed by the TNFD) to enable companies to manage nature-related risks and impacts and disclose relevant information.
Consultation on water risks	Provide support for information disclosure of countermeasures and initiatives against water risks by applying the track record of providing services for the assessment and analysis of natural disaster risks and countermeasure development as well as consulting capabilities related to sustainability and ESG management.
Consultation on CDP reporting	As CDP's accredited scoring partner, Tokio Marine dR was involved in the scoring in the area of climate change from 2018 to 2023. It became a CDP-accredited solutions provider in 2025. As a consulting expert in climate change, it offers support to companies dealing with CDP reporting for the first time and to those wishing to improve their scores.
Consultation on external ESG rating	After discovering the status of ESG disclosure, make a list of items that should be disclosed and organize priority initiatives while considering the impact of the data. Study and analyze the status of disclosure of competitors and organize issues to address on request.
Support for obtaining environmental building certifications and turning existing buildings into zero-energy buildings (ZEB)	Provide support for obtaining environmental building certifications, including the Comprehensive Assessment System for Built Environment Efficiency (CASBEE) and Building-Housing Energy-efficiency Labeling System (BELS) and initiatives for ZEB.
Providing diagnosis of energy efficiency of buildings; understanding the current status of ESG practices and verifying the effects	Produce ESG reports summarizing the current status of ESG practices used for buildings, recommended energy-saving measures and verification of the effects and provide support to improve the risk management and performance of real estate investment.
Soil environmental assessment, soil pollution countermeasures and consultation	As part of the risk assessment of soil pollution, investigations are conducted such as screening (preliminary site investigation), the history of hazardous substances use and confirmation of the extent of soil pollution and pollutants. When pollution is confirmed through the risk assessment, comprehensive consultation for executing decontamination work is provided, from developing a decontamination plan to negotiating with local governments and communicating with local residents.
Risk assessment of renewable energy power stations (Risk advisory services for clean energy developers)	Using the knowledge on damage assessment acquired in the non-life insurance field, conduct quantitative assessments of natural disaster risks required when procuring funds through the project finance method mainly used to fund renewable energy projects and large-scale infrastructure projects.

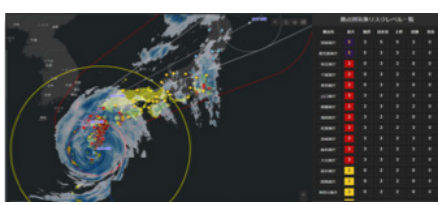
[Providing Solutions by Tokio Marine Resilience]

In November 2023, Tokio Marine Group established Tokio Marine Resilience Co., Ltd., a Group company specializing in the solutions business in the disaster prevention and mitigation domain. The company has launched this new business to offer value to all phases of the disaster prevention and mitigation value chain (assessment, preparedness, evacuation, reconstruction of livelihoods) and started providing disaster prevention and mitigation services.

(1) Providing Solutions to Companies

We provide various solutions such as a resilient information distribution service that allows real-time monitoring of meteorological risks. We also offer software as a service (SaaS), including imatome, an all-in-one crisis management service designed to automate the initial response (BCP) to a disaster, and an emergency stockpile solution to ease the burden on employees in charge of the management and distribution of supplies.

Dashboard screen of imatome, an all-in-one crisis management service



Resilient information distribution service

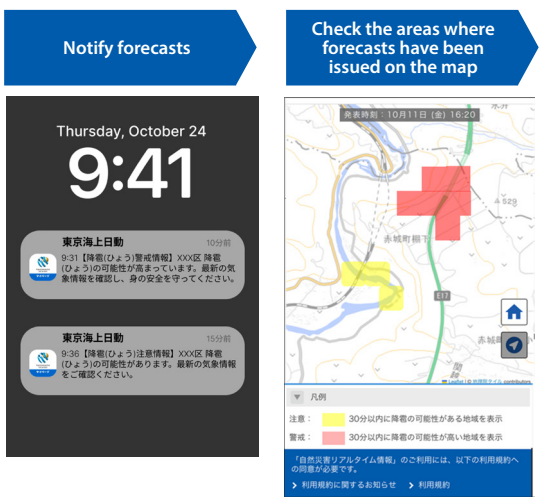
"Unit 1-Day Rescue" emergency stockpile solution

In developing services, the company also utilizes solutions co-created by the CORE consortium. Tokio Marine Resilience will continue to evolve its disaster prevention and mitigation services.

(2) Providing Solutions to Policyholders (Individual Customers)

Tokio Marine & Nichido operates a website for its policyholders that sends hail alerts and shows the areas where hail has fallen on the map. The company also promotes initiatives to reduce damage by providing disaster information in advance.

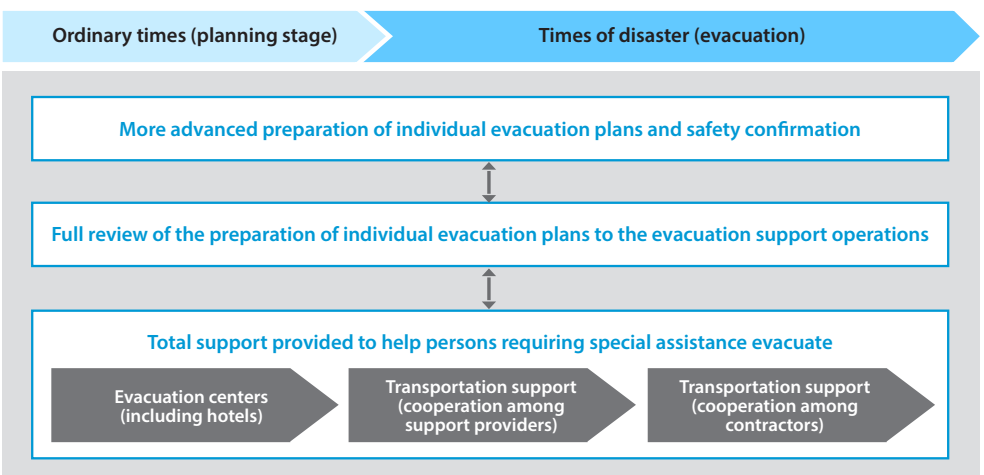
Going forward, Tokio Marine & Nichido plans to improve the system to issue other types of alerts as well. The company also strives to roll it out to other Group companies and increase the amount of information uploaded to minimize damage to customers.



(3) Providing Solutions to Local Governments

Tokio Marine Resilience became a main contractor of the Tokyo Data Platform Case Study Project (fiscal 2024). The purpose of the project was to help address issues related to the entire evacuation process for persons requiring special assistance by using disaster-related data collected by public and private sectors. Specifically, the company fully reviewed the evacuation support operations during a disaster, including the preparation of individual evacuation plans, and clarified the method of cooperation in the event of a disaster with private businesses that have concluded disaster cooperation agreements with municipalities.

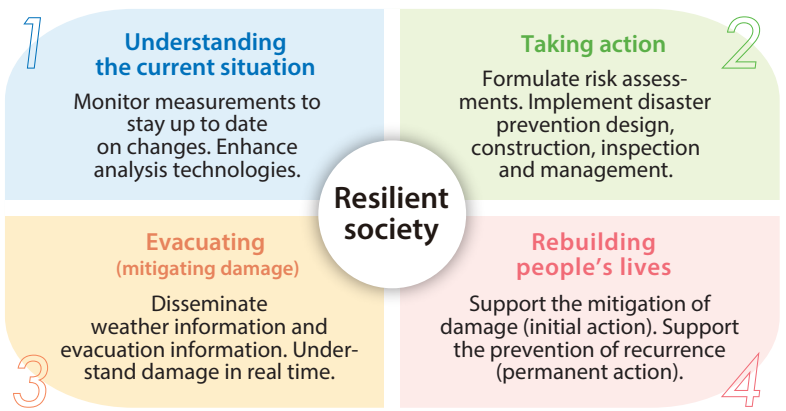
Tokio Marine Resilience intends to help create a safe and secure society by encouraging local governments to prepare individual evacuation plans.



[Disaster Prevention Consortium]

The Disaster Prevention Consortium (CORE) comprising companies with proven disaster prevention and mitigation capabilities from a wide range of industries was established in November 2021. (As of April 30, 2025, it had 129 member companies.)

CORE aims to jointly create disaster prevention and mitigation businesses using the technologies and data managed by member companies. It also strives to solve challenges relating to the four facets of disaster prevention and develop new solutions in collaboration with the government and local governments. Tokio Marine Group launched the sale of Real Time Hazzard in June 2024, for which CORE led the development. It is a solution service designed to monitor areas threatened by flooding 24 hours a day, 7 days a week, and issues alerts to prevent water disasters.



[System for Responding Quickly to Natural Disasters]

We cannot eliminate natural disasters, but we can reduce damage by enhancing resilience in society, as described in the Scenario Analysis section. Accordingly, Tokio Marine Group has been focusing on providing solutions to prevent damage, reduce damage when a disaster does occur and support early recovery.

Japan has been struck by a number of natural disasters such as typhoons and floods in recent years, causing serious damage across the country. If a large-scale disaster occurs, Tokio Marine & Nichido promptly establishes disaster response offices, satellite offices (temporary offices to conduct damage assessment and other operations in disaster-stricken areas) and backup offices (insurance claim centers) to facilitate speedy initial response. The company's IT network enables claims service offices across Japan to exchange and share information in real time, which in turn allows for providing support smoothly from remote regions. Tokio Marine & Nichido makes company-wide efforts, with employees, loss appraisers and adjusters dispatched to the disaster areas visiting customers affected by the disaster to check on damages to houses and other properties, in order to quickly pay insurance claims using digital, AI and other technologies.

We have installed a system to check damage remotely, thereby setting up a structure to maintain our claims services even when employees are unable to come to the office due to an infectious disease or disaster.

[Development of Claims Payments Using Satellite Imaging and AI]

Tokio Marine & Nichido concluded a capital and business alliance with ABeam Consulting Ltd. and has been working together to pay insurance claims using satellite imagery in 2018. To increase the level of sophistication of these activities, the company has been collaborating with ICEYE, which possess advanced satellite image analysis technologies.

Mainly in the event of a flood disaster, this initiative will enable a more detailed calculation of damage and the height of flooding using AI to analyze data, including images on social media and data from immersion sensors in addition to acquired satellite images. The data will be combined with Tokio Marine & Nichido's customer data, such as location and property information, to determine the damage on a customer-by-customer basis and significantly reduce the time before customers receive their insurance claims.

Tokio Marine Holdings and ICEYE aim to advance various initiatives, including the digital transformation of insurance claim services related to natural disasters and the joint development of new insurance products and services, by leveraging ICEYE's technologies for high-precision, high-frequency earth observation and its technology development team dedicated to the insurance field to help solve diverse social issues.

We actually determined the damage caused by the wildfires that broke out in Iwate Prefecture in Japan in February 2025 using satellite imagery. The extent of damage was verified promptly and remotely thanks to satellite imagery, enabling us to pay insurance claims without having to wait until the evacuation orders were lifted. This initiative contributed to early recovery of survivors' livelihoods.

Overlaying the extent of a flood disaster analyzed by AI on a satellite image

Initiatives as an Institutional Investor (Investment and Financing)

Tokio Marine Group recognizes that climate change and loss of natural capital are issues that are closely linked. As such, we engage in ESG investment and financing, which gives appropriate consideration to the environment, social and governance (ESG) factors encompassing these two issues while supporting the transition to a decarbonized society and conservation of natural capital.

Specific efforts include ESG integration where both financial and non-financial data are used in the investment decision-making process; constructive and purposeful dialogue with investment and financing recipients, which encompasses ESG issues; exercising voting rights for these recipients; and addressing specific sectors based on climate change as well as environmental and social risks. We have also been promoting efforts to become nature positive in 2030 and carbon neutral in 2050 in our investment and financing portfolios. Additionally, mainly Group insurance companies in Japan have been engaging the lead in generating sustainability outcomes for resolving environmental and social issues through sustainability-themed investment and financing as well as impact investing.

Sustainability-themed investment and financing include investment in green bonds, sustainability bonds and transition bonds. Additionally, Tokio Marine & Nichido executed its first green loan and invested in the GX Economy Transition Bonds (climate transition bonds) issued by the Japanese government as an effort to support the transition to a decarbonized society. Additionally, in fiscal 2024, the company made new investments in blue bonds issued by the Indonesian government to support marine environment conservation and sustainable fisheries, and also invested in Japan's first publicly issued impact bonds.

[Investment in Publicly Issued Impact Bonds]

In fiscal 2024, Tokio Marine & Nichido invested in the first publicly issued impact bonds (sustainable and positive impact bonds) in Japan, issued by Toyoda Gosei Co., Ltd. Toyoda Gosei established a unique framework to procure funds aimed at promoting ESG initiatives and comprehensively analyzing and identifying its impacts on the environment, society and the economy. It has also established an impact management system, which enables the evaluation and reporting of the impact progress using its own key performance indicators (KPIs). These are Japan's first publicly issued bonds based on the impact finance framework. The proceeds from the issuance of the bonds are used for the development and production of products designed for battery electric vehicles (BEVs), which are expected to become popular to realize a decarbonized society, as well as safety system products such as airbags.

Tokio Marine & Nichido will continue to support its initiatives, including the transition to a decarbonized society, through this investment.

In fiscal 2022, Tokio Marine & Nichido established a team to carry out impact investing that generates both social and economic value. The company has made investment commitments to renewable energy funds and a real estate climate impact fund that will be conducive to counter climate change as well as a forestry funds and agriculture strategic investment fund that will help conserve natural capital. It made an investment commitment to a new forestry fund in fiscal 2024 to support initiatives for natural capital conservation and carbon neutrality.

[Investing in Real Estate Climate Impact Fund That Focuses on Climate Action]

In fiscal 2023, we signed through Tokio Marine & Nichido an agreement to invest in the Fidelity European Real Estate Climate Impact Fund, which addresses climate change issues through the acquisition and renovation of commercial real estate in Europe.

This fund aims to implement sustainability-enhancing renovations to existing buildings acquired through real estate investments to reduce GHG emissions and improve asset value and well-being of users. Through the investment, Tokio Marine & Nichido financially aids the climate action in the real estate sector and provide support for achieving a net-zero society.

[Investment in a Forestry Fund]

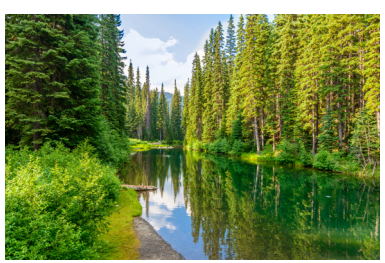
In fiscal 2023, we signed through Tokio Marine & Nichido an agreement to invest in the Manulife Forest Climate Fund, which invests globally, including in the United States and Australia.

This fund manages forests mainly to acquire carbon credits that are receiving growing expectations for their role in reducing GHG emissions. It plans to acquire international certification to promote sustainable forest management, such as the Sustainable Forest Initiative (SFI) and Forest Stewardship Council (FSC) certification, for the forests it manages.

In fiscal 2024, we signed through Tokio Marine & Nichido an agreement to invest in The Reforestation Fund I, managed by BTG Pactual Timberland Investment Group, LLC.

This fund aims to issue carbon credits through the reforestation and conservation of commercial plantations and natural forests for timber production in South American cattle pasture. It plans to manage forests sustainably to generate impact such as biodiversity conservation in collaboration with Conservation International, an international environmental NGO.

Tokio Marine & Nichido supports initiatives for natural capital conservation and carbon neutrality through investments in forestry funds.



[Investment in an Agriculture Strategic Investment Fund]

In fiscal 2023, we also signed through Tokio Marine & Nichido an agreement to invest in the Macquarie Agriculture Fund Crop Australia 2, a fund to invest in Australian farmland and agriculture-related businesses.

This fund mainly invests in companies that own and operate farmland in Australia and promotes environmentally friendly operations, such as the use of renewable energy, the reduced use of pesticides and fertilizers by introducing the latest technology and afforestation in abandoned farmland. Through the investment, Tokio Marine & Nichido provides financial support to sustainable agricultural operations for the ultimate goal of reducing GHG emissions and conserving biodiversity while also supporting the agriculture sector to address climate change and nature-related issues for achieving carbon neutrality.

The Group's balance for sustainability-themed investing and financing and committed amount for impact investments as of March 31, 2025, are as shown below.
Through these initiatives, Tokio Marine Group contributes to becoming carbon neutral and nature positive.

Investment cases	Investments and financing as of March 31, 2025*
Sustainability-themed investments and financing	149.1 billion yen
Impact investing	31.5 billion yen

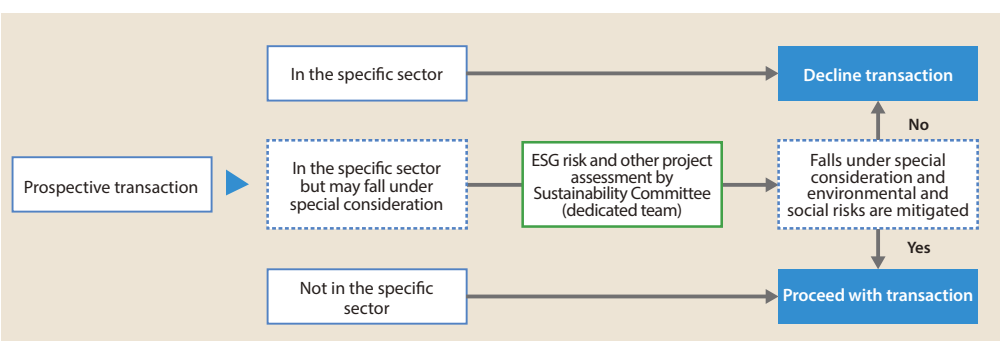
*Total balance of Tokio Marine & Nichido, Tokio Marine & Nichido Life and Nisshin Fire for sustainability-themed investments and financing; Total committed amount of Tokio Marine & Nichido for impact investing

Policies Concerning Insurance Underwriting and Investment and Financing

As responsible insurance underwriting and investment and financing activities, Tokio Marine Group pays attention to the risks of negatively impacting the environment and society and undertakes transactions (insurance underwriting, investments and financing) based on the customer's consideration for the environment and society. In this judging process, we comprehensively evaluate not just climate change risks but also risks to indigenous peoples' rights and workers' occupational health and safety as well as nature-related risks on natural capital and biodiversity.

Tokio Marine Group has established a strict underwriting management process for specific sectors that we deem to pose a high risk to the environment and society. For projects that relate to any of the specific sectors but may be subject to special consideration, we determine whether to underwrite insurance by using an escalation process, through which a dedicated team will perform risk assessments. We seek the approval of the Sustainability Committee if necessary.

In fiscal 2024, we received inquiries for three projects in the specific sectors. Of these, three were deemed eligible and underwent an assessment by the dedicated team.



Policies concerning specific sectors

1. Inhumane weapons **Biological weapons** **Chemical weapons** **Cluster munitions** **Anti-personnel landmines**	We will not undertake business transactions (insurance underwriting, investment and financing) with the inhumane weapons sector, which manufactures inhumane weapons, as these pose major humanitarian concerns.
2. Coal-fired power generation	Compared to other power generation, coal-fired power generation emits more GHG and also produces toxic substances such as sulfur oxides and nitrogen oxides. Given the high risk of contributing to environmental impacts such as climate change and air pollution, we will not undertake new business transactions (insurance underwriting, investment and financing) for coal-fired power plants*1, regardless of whether they are new projects or not.
3. Thermal coal mining	As with coal-fired power generation, the development of coal mines for power generation projects may result in increased GHG emissions through combustion at thermal power plants in the future. We also recognize the risks to the workers' occupational health and safety and the impacts of hazardous waste on local biodiversity. In light of the negative impacts on climate change, ecosystems and human rights, we will not undertake new business transactions (insurance underwriting, investment and financing) for thermal coal mining projects*1, regardless of whether they are new projects or not.
4. Oil sands	We recognize that oil sands mining has the potential to emit large amounts of GHG compared to conventional oil and gas extraction. We also recognize the risks of infringing indigenous peoples' rights and negatively impacting the surrounding wildlife and ecosystems. In light of the negative impacts on climate change, ecosystems and human rights, we will not undertake new business transactions (insurance underwriting, investment and financing) for oil sands mining projects.
5. Arctic oil and gas	Oil and gas extraction projects in the Arctic Circle (all areas north of latitude 66°33, including the Arctic National Wildlife Refuge) entail significant risks of altering the habitats and ecosystems of rare species and marine life. We are also aware of the negative impacts on the livelihoods and cultures of indigenous peoples. In light of the negative impacts on ecosystems and biodiversity, as well as on the indigenous peoples' rights, we will not undertake new business transactions (insurance underwriting, investment and financing) for oil and gas extraction projects*2 in the Arctic Circle.

*1 Exceptions for projects with innovative technologies and approaches, such as CCS/CCUS (carbon dioxide capture and storage / carbon dioxide capture, utilization and storage) and mixed combustion, may be granted after careful consideration, aiming to achieve the goals of the Paris Agreement

*2 Exemptions for projects with decarbonization plans that are aligned with the Paris Agreement

Initiatives as an Asset Manager

■ Fund Formation

Tokio Marine Asset Management (TMAM) 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, 2025)

Amount committed	Approx. 48 billion yen
Units installed	43
Power generation capacity (DC)	Approx. 280 MW

■ Engagement

[Corporate Engagement: Carbon Neutral]

TMAM holds engagement dialogue with a group of companies, mostly companies in which it has made equity investment, in the materials, manufacturing, transportation and public utilities sectors where climate change issues are considered crucial. Working toward a reduction of GHG emissions, which serves as a KPI in each company, and helping these companies achieve or make an upward adjustment to their respective reduction plans, TMAM evaluates the progress of their efforts from the following three perspectives.

(1) Level of GHG emissions reduction targets set by each company (compared to Japan's Nationally Determined Contributions, or NDCs)
(2) Technical difficulty of achieving carbon neutrality
(3) How actively each company is pursuing GHG emissions reduction in their reduction strategies and the likelihood of them achieving the targets

Many companies in the materials and manufacturing sectors are facing difficulties as in Perspective (2) above, because their existing production processes inevitably emit GHGs and thus require fundamental changes, such as shifting to hydrogen utilization technologies. For this reason, TMAM engaged in dialogue mainly from the longer-term perspective of achieving carbon neutrality by fiscal 2050, rather than talking about milestone targets for fiscal 2030. Accordingly, TMAM has requested companies in these sectors to establish a financing scheme for the necessary R&D and capital investment, in addition to the creation and disclosure of a relevant, super long-term vision.

In the transportation sector, TMAM's dialogue counterparts are companies whose business activities are subject to strict global rules. TMAM has confirmed their steady progress toward the reduction targets, which largely surpasses the level outlined by the NDCs and should be regarded highly in terms of Perspective (1) above, and the status of development and feasibility of technologies for utilizing nature-derived fuels.

There is a consensus that the path to carbon neutrality in the public utilities sector is to increase the proportions of renewable energy, such as solar and wind power, as well as nuclear power, in the power generation mix. As such, the main themes of the dialogue included the appropriateness of the level of GHG emissions reduction targets in relation to the current power generation mix; the progress in acquisition of government's authorization and other efforts for restarting nuclear power plants; the degree of achievement of renewable energy development plans that are shifting from solar power to onshore and offshore wind power; and the robustness of the necessary capital investment financing. While many companies appeared to have increased their likelihood of achieving the fiscal 2030 milestone targets for GHG emissions reduction owing to the restart of nuclear power plants and increased transparency of the restart schedule, there was a case where TMAM suggested to a company whose energy mix shows a high proportion of thermal power to reconsider its reduction targets, which seemed too ambitious.

[Corporate Engagement: Nature Positive]

TMAM holds engagement dialogue with a group of companies in the materials, manufacturing, services, transportation and public utilities sectors where biodiversity issues are considered crucial. Accordingly, TMAM evaluates how these companies recognize and work toward TNFD disclosures based on the five evaluation levels shown below.

(1) Understanding the issues associated with TNFD disclosures and the need to make relevant efforts
(2) Understanding and having identified the dependencies and impacts on nature of their business activities
(3) Having determined the scope and schedule of disclosure in the form of a TNFD report or a similar format
(4) Recognizing strategic opportunities and risks and implementing and disclosing initiatives to reduce (increase) negative (positive) impacts on nature
(5) Implementing and disclosing highly effective strategies that specify priority areas and domains, and measuring and disclosing the value of relevant natural capital and advanced metrics (such as TNFD core disclosure metrics C4.0–7.4)

In the materials sector, while some companies were still at Level (1) or (2) above, there were chemical and paper companies that have actively sought strategies to realize natural capital value. In one case, a company calculated and disclosed the value of its own site in harmony with nature by using the Sheet for Valuation and Calculation of Ecosystem Services Related to Corporate Biodiversity Conservation Activities (trial version released by the Ministry of the Environment in March 2019) recommended by TMAM.

In the manufacturing sector, a marine products-related company has made TNFD disclosures corresponding to Evaluation Level (4) or (5). TMAM has thus requested the company to receive certification and register its site as a site in harmony with nature, perform advanced measurements and consider value-added strategies. Despite being at Evaluation Level (3), a food company was working to resolve challenges facing its suppliers in the agriculture, forestry and livestock industries (upstream in the value chain). In the future, TMAM plans to provide information that is helpful when the company actually takes corporate actions in this regard.

In the services sector, a company in the construction and real estate field, which is at Evaluation Level (4) or (5), is working to develop an approach to resolving suppliers' challenges in the forestry industry, while a media company is seeking a biodiversity strategy conducive to regional revitalization, despite being at Evaluation Level (1). TMAM will continue to engage with them to help them achieve their objectives.

A company in the transportation sector has made TNFD disclosures that were almost at Level (5). For further improvement, TMAM has requested the company to measure invasive alien species and the state of nature in priority areas (TNFD core disclosure metrics C4.0 and 5.0) and consider the implementation of improvement measures.

In the public utilities sectors, more companies appeared to have attached a higher priority to responding to risks (reducing negative impacts on nature) than to opportunities. However, one company at Level (5) has clearly described existing and future opportunities related to natural capital and their relevance to the Kunming-Montreal Biodiversity Framework's 2030 global targets. This company should serve as a model case for this sector.

[Policy Engagement]

In Japan, a system to certify and register sites in harmony with nature represents one of the "Other Effective Area-based Conservation Measures (OECM)," which are positioned as a primary means to implement the country's biodiversity policies. TMAM is the only asset manager to participate in the working groups related to the system, the Support Certificate Model Trial Working Group (fiscal 2023) and Support Certificate Trial Working Group (fiscal 2024).

Topics discussed at the working group meetings in fiscal 2023 and 2024 included the design of a support certificate system that publicly certifies human, technical and financial support made for sites in harmony with nature, case studies of support providers and recipients and the use of the system to certify and register sites in harmony with nature in TNFD disclosures. At the end of each fiscal year, the results of discussions are reported to the parent committee, the Committee on Economic Incentives Related to the 30 by 30 Targets. (See the Ministry of the Environment website for the details of the report submitted at the end of March 2025.)

The support certificate system will go into full-scale operation in fiscal 2025 under the Act on Promoting Activities to Enhance Regional Biodiversity and will likely require follow-up activities after the launch. TMAM intends to continue its activities to engage in the environmental policymaking process.

■ Environmental Conservation Activities and Study on the Creation of Carbon Credits

Aiming to contribute to the promotion of decarbonization and conservation of biodiversity in the marine and agricultural fields by leveraging its financial strengths, TMAM participates in environmental conservation and restoration projects throughout Japan with the aim of contributing to the promotion of decarbonization and biodiversity conservation in the marine and agricultural sectors through the power of finance.

Since 2023, the company participates in a project set up in the Nosoko area of Ishigaki City, Okinawa Prefecture, which aims to restore seagrass beds. The project's purpose is to regenerate seagrass at risk of extinction due to overgrazing by sea turtles and thereby restore the area's carbon sink. Although seagrass is an endangered species, it is considered a promising carbon sink that absorbs a comparatively large amount of CO_2 because of its large size. The installation of barriers in May 2024 designed to prevent overgrazing led to the partial restoration of seagrass (see photo).

In recognition of these activities, the area became the first in Okinawa to be certified as a site in harmony with nature by Japan's Ministry of the Environment in November 2024. TMAM has been a member of the 30 by 30 Alliance for Biodiversity, an initiative launched by the Ministry of the Environment.

The company is planning to expand the area of seagrass regeneration in the future and create blue carbon credits to ensure the sustainability of this project itself.

The local children of Nosoko Elementary School have helped run the project as part of biodiversity conservation efforts. In this way, the project contributes to teaching the future generation the importance of biodiversity conservation and people's relationship with nature.

Successful restoration of seagrass within the barriers

Initiatives as a Global Company

Because climate change and biodiversity affect each other and are interdependent, Tokio Marine Group recognizes that a comprehensive approach to diverse issues in the global environment is to promote both climate action and the conservation of biodiversity simultaneously. Accordingly, we have been active in holding dialogue with international organizations, governments, industry, academia, NPOs and NGOs.

Tokio Marine Group has been reinforcing its activities through various initiatives related to climate change in Japan and overseas as well as natural capital and biodiversity. In relation, we have been working to contribute to the conservation of these as a member of the United Nations Global Compact; United Nations Environment Programme Finance Initiative (UNEP FI) / Principles for Sustainable Insurance (PSI); TCFD Consortium; GX League; Taskforce on Nature-related Financial Disclosures (TNFD) Forum / TNFD Consultation Group of Japan; 30 by 30 Alliance for Biodiversity by the Ministry of the Environment; Ministry of the Environment Principles for Financial Action for the 21st Century; Keidanren Committee on Nature Conservation and as a Promotion Partner for the Keidanren Initiative for Biodiversity Conservation.

More specifically, as a member of the UNEP FI and the UN-supported Principles for Responsible Investment (PRI), Tokio Marine Group signed the COP15 Statement from the Private Financial Sector developed by the UNEP FI and PRI in December 2021 and made a commitment to contribute to the conservation of biodiversity through its business activities. Tokio Marine Group joined the TNFD Forum in January 2022 and, as its member, registered as an Early Adopter in January 2024. In Japan, we have been working as a member of the Ministry of the Environment Principles for Financial Action for the 21st Century to generate positive impacts and mitigate negative impacts on the environment, society and economy. In April 2022, we joined the ministry's 30 by 30 Alliance for Biodiversity to promote our efforts concerning the conservation of biodiversity.

Climate Change, Natural Capital and Biodiversity Initiatives Joined by Tokio Marine Group

Category	Name of initiative	Efforts of Tokio Marine Group
Human rights, labor, the environment and anti-corruption	United Nations Global Compact (UNGC) / Global Compact Network Japan	Tokio Marine Group endorses the UNGC's Ten Principles and promotes efforts on human rights, labor, the environment and anti-corruption.
Sustainable finance and insurance	United Nations Environment Programme Finance Initiative (UNEP FI) / Principles for Sustainable Insurance (PSI)	Tokio Marine Holdings promotes efforts for sustainable finance and insurance as a signatory.
	Ministry of the Environment Principles for Financial Action toward a Sustainable Society (Principles for Financial Action for the 21st Century)	Tokio Marine & Nichido, Tokio Marine & Nichido Life, Nisshin Fire, E. design Insurance, Tokio Marine Millea SAST Insurance and Tokio Marine Asset Management promote efforts for the formation of a sustainable society as a signatory.
Sustainable investment	Principles for Responsible Investment (PRI)	Tokio Marine & Nichido and Tokio Marine Asset Management promote efforts on responsible investment.
	Japan Sustainable Investment Forum (JSIF)	Tokio Marine & Nichido and Tokio Marine Asset Management contribute to surveys and research on sustainable investment.
Climate change and nature-related disasters	Partnership for Carbon Accounting Financials (PCAF)	Tokio Marine & Nichido contributes to the discussion on the measurement and analysis of GHG emissions.
	The United Nations Office for Disaster Risk Reduction (UNDRR) — Private Sector Alliance for Disaster Resilient Societies (ARISE)	Tokio Marine & Nichido promotes efforts on disaster prevention and mitigation.
	The Geneva Association	Tokio Marine Holdings leads surveys and research on climate change and natural disaster risks as an executive committee member and a Joint-Chairman of the Climate Change and Emerging Environmental Topics Working Group.
	ClimateWise	Tokio Marine Kiln and Tokio Marine HCC promote climate action according to the seven ClimateWise Principles.
	Asia-Pacific Financial Forum (APFF)	Tokio Marine & Nichido leads the discussion on disaster risk financing and insurance and dissemination of climate change-related disclosure conducive to the promotion of sustainable financing.
	Insurance Development Forum (IDF)	Tokio Marine Group participates in relevant discussions as a member of the IDF's Operating Committee and Steering Committee.
Climate change and nature-related disclosure	CDP	Tokio Marine Holdings supports companies' climate change-related surveys as a CDP Signatory.
	Financial Stability Board (FSB) Task Force on Climate-related Financial Disclosures (TCFD) TCFD Consortium	Tokio Marine Holdings contributes to the formulation of the TCFD recommendations.
	Taskforce on Nature-related Financial Disclosures (TNFD) Forum TNFD Consultation Group of Japan	Tokio Marine Holdings joined the TNFD Forum in January 2022 and became registered as a TNFD Early Adopter in January 2024.
Environmental value creation	Ministry of the Environment Eco-First System	Tokio Marine & Nichido has been continuously certified as an Eco-First company since 2008.
	Ministry of the Environment's COOL CHOICE	Tokio Marine & Nichido encourages "smart choices" to help promote decarbonization.
	Ministry of the Environment's "Fun to Share" Climate Change Campaign	Tokio Marine & Nichido proactively promotes efforts toward a low-carbon society.
	Ministry of the Environment's "Decokatsu" national movement to create new, enriching lifestyles leading to decarbonization	Tokio Marine & Nichido supports the activity in terms of products, services and related efforts as a member of the Decokatsu Support Team (Public-Private Partnership Council).
	Green Purchasing Network	Tokio Marine & Nichido promotes green purchasing.
	30 by 30 Alliance for Biodiversity by the Ministry of the Environment	Tokio Marine & Nichido joined the 30 by 30 Alliance in April 2022 to achieve the "30 by 30" targets.
	GX League	Tokio Marine & Nichido joined the GX League in May 2023 and conducts activities as a leader of the GX Management Promotion Working Group.
	Keidanren Committee on Nature Conservation	Tokio Marine & Nichido participates as a Permanent Committee Company.
	Keidanren Initiative for Biodiversity Conservation	Tokio Marine & Nichido endorsed the Keidanren Initiative for Biodiversity Conservation and became a Promotion Partner in January 2010.

Note: For details of each initiative, please refer to Tokio Marine Holdings Sustainability Report 2024 (P. 35–40)

Initiatives as a Good Corporate Citizen

In order to accomplish our goal of protecting customers and society in times of need, Tokio Marine Group cooperates and works with our stakeholders and promotes corporate citizenship activities with the participation of all employees around the world. Motivated employees work with sincerity and empathy, continue to find new ways to address nature-related issues and spread those mindsets and actions to the entire organization and Group. This in turn fosters a corporate culture of tackling nature-related issues as a natural course of action, and by doing so, creates a positive cycle between solving nature-related issues and facilitating corporate growth (enhancing corporate value) that will contribute to achieving "nature positive" by 2050.

Corporate Citizenship Activities with the Participation of All Group Employees

Tokio Marine Group is implementing different corporate citizenship activities around the world that emphasize voluntary participation by employees and tie-ups and collaboration with NPOs, NGOs and other groups. Each Group company strives to support the proactive involvement of employees in ongoing corporate citizenship activities in a number of ways, such as introducing corporate citizenship activities in which employees can participate and setting up leave systems for volunteer activities. In fiscal 2024, the total corporate citizenship activity participation rate among Group employees around the world (total number of participants in corporate citizenship activities against the number of employees) was 89%. Tokio Marine Group's annual target is to have each employee take part in one or more corporate citizenship activities every year.

Planting Mangroves and Protecting and Restoring Eelgrass Beds as Corporate Citizenship Activities

As mangrove forests have an effect of preserving natural capital and biodiversity, Tokio Marine & Nichido has engaged in the Mangrove Planting Project since 1999 under the concept of "insurance for the future of the Earth." As of March 31, 2025, approximately 12,970 hectares of mangrove forest have been planted through this project in nine countries in the Asia-Pacific region.

Even though Tokio Marine & Nichido's Mangrove Planting Project has an aspect of climate action and improved disaster resilience, it can also be viewed as a corporate citizenship activity related to the preservation of natural capital and biodiversity. The project has now expanded to other Group companies. Tokio Marine & Nichido has publicized its Mangrove-based Value Co-creation 100-Year Declaration, which seeks to create value through natural blessings brought about by mangroves together with tree-planting NGOs, and we intend to carry on the project in the future as well.

In 2022, we launched activities to protect and restore eelgrass beds. We will promote these activities along with the Mangrove Planting Project as an effort to protect the global environment.

Green Lessons and Disaster Prevention Lessons: Raising Environmental Awareness and Disaster Preparedness

Tokio Marine Group has positioned future generations as a stakeholder and identified "Providing education to children" as one of our materials issues. As part of this initiative, we visit elementary schools and special needs schools to provide Green Lessons and Disaster Prevention Lessons with employees of Group companies serving as lecturers.

Under the theme of mangrove planting activities, our Green Lessons provide an opportunity for children to think about the prevention of global warming, biodiversity and ecosystem-based disaster risk reduction (Eco-DRR). As of March 31, 2025, these lessons were attended by a total of more than 61,000 children.

Likewise, our Disaster Prevention Lessons encourage children to explore the mechanisms that cause earthquakes and tsunamis as well as flood and landslide disasters, how to protect themselves in disasters, what preparations should be made in advance and what it will be like to live in a temporary shelter. As of March 31, 2025, the total number of participants exceeded 111,000.

Risk and Impact Management

Risk Management

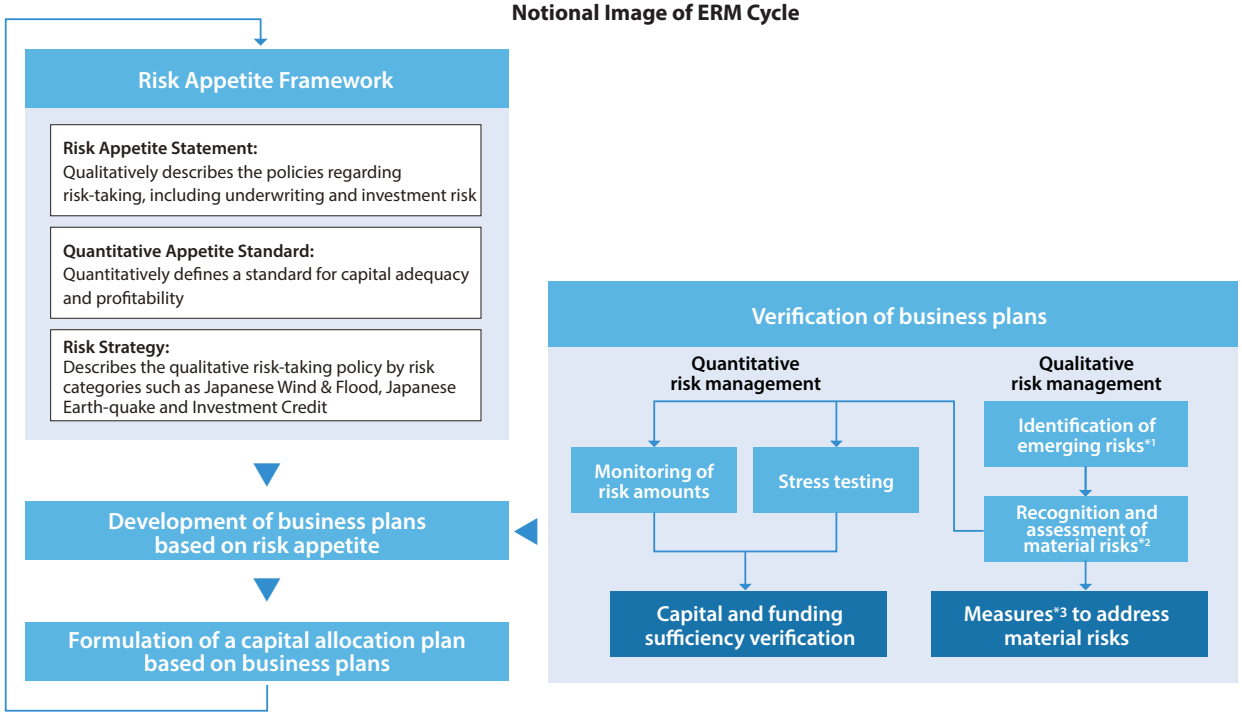
[Managing Climate Change and Nature-Related Risk Based on Enterprise Risk Management (ERM)]

In conducting enterprise risk management (ERM), Tokio Marine Group comprehensively identifies and assesses climate change and nature-related risks, using both qualitative and quantitative approaches.

In the underwriting 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 catastrophes) both quantitatively and qualitatively. Specific initiatives are as follows.

Risk Factors | Financial Data | Tokio Marine Holdings, Inc.

Notional Image of ERM Cycle



*1 Emerging risks are new risks that arise due to changes in the environment or other factors, encompassing those that were not traditionally recognized as risks and those that have increased markedly in severity.
*2 Material risks refer to risks that could have a substantial impact on financial soundness, business continuity and other critical aspects.
*3 For material risks, we formulate response measures (Plan), implement these measures (Do), assess the outcomes (Check) and make improvements (Act).

◆ Qualitative Risk Management

We identify all forms of risks comprehensively, including emerging risks resulting from environmental changes, and define risks that will have an extremely large impact on our financial soundness and business continuity as "material risks." The risk of major wind and flooding disasters as well as secondary perils (including climate change physical risks), which we believe could become more frequent and severe due to the effects of climate change, represent one such material risk. For these defined material risks, we also develop control measures before risks materialize and response measures to take in the event that risks do materialize. Additionally, we specify inappropriate responses to a decarbonized society that coexists with nature (climate change and nature-related transition risks) along with global warming and natural capital/biodiversity loss (climate change and nature-related physical risks) as emerging risks.

◆ 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). We independently analyze changing trends of past tropical cyclones (typhoons in Japan and hurricanes in the United States) and torrential rains and incorporate the up-to-date trends as necessary in order to properly assess current weather phenomena.

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 effectively utilizes sufficient reinsurance as required to prevent capital impairment, which could affect business continuity in the event of a major natural disaster on a scale that occurs once every few centuries. As for reinsurance against natural disasters that occur more frequently, we have introduced the necessary measures such as determining economic rationality based on the reinsurance market environment.

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 of increased insurance losses associated with climate change.

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

Climate chang

Timeline	Targets	Metrics	Goals
Fiscal 2050	Tokio Marine Group (including insurance customers and investment and financing recipients)*1,*2	Reduction in GHG emissions	Aim to reduce GHG (CO_2) emissions to net zero
Fiscal 2030	Tokio Marine Group	Reduction in GHG emissions (CO_2) from operations of Tokio Marine Group	Reduce GHG emissions (CO_2) from Tokio Marine Group's business activities by 60% (vs 2015)*3
	Tokio Marine Group's major business facilities	Renewable electricity use	Use 100% renewable electricity
	Tokio Marine & Nichido, Tokio Marine & Nichido Life, and Nisshin Fire	Electrification of company-owned vehicles	Switch all company-owned vehicles to electrified vehicles (EV, PHV, HV, etc.)
	Tokio Marine Nichido	Number of engaged customers and level of engagement (achieved a dialogue of Level 2 or higher with 121 companies as of March 31, 2025)	Hold dialogues with 200 large corporate customers, which account for approximately 90% of its insurance-associated GHG emissions, and among them make Level 2 or higher engagements with more than 160 customers; request these 200 large corporate customers to formulate decarbonization plans and decline transactions with those failing to present such plans by 2030
Fiscal 2026	Tokio Marine Group	Insurance premiums that directly contribute to the realization of a decarbonized society	Achieving decarbonization-related insurance premiums*4 of 45 billion yen by fiscal 2026
	Tokio Marine Nichido	Improvement in profitability of fire insurance	Improve the profitability of fire insurance by around 15 billion yen*5 from fiscal 2024 to fiscal 2026

Nature-related

Timeline	Targets	Metrics	Goals
Fiscal 2050	Tokio Marine Group	–	Contribute to creating a society that coexists with nature
Fiscal 2030	Tokio Marine Group	Conservation, creation and registration of sites in harmony with nature that help achieve the 30 by 30 target	Contribute to achieving "nature positive" by 2030

*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 Insurance that directly contributes to the realization of a decarbonized society, such as insurance for business operators of offshore wind, solar and other types of renewable energy and warranty insurance for electric vehicles and storage batteries
Examples:
・Insurance for renewable energy-related business operators (insurance for construction/engineering, property, liability, business income, marine/cargo, etc.)
・Guarantee insurance for electric vehicles and storage batteries
・Warranty and indemnity insurance for the acquisition and transfer of renewable energy businesses
*5 Assuming natural catastrophe claims in an average year

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. At the same time, it 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 (CO_2) emissions from business activities.

Fiscal 2023

- **Reduction of GHG (CO_2) emissions from Tokio Marine Group operations*1: 69,888 tons (48% reduction vs 2015)**
  (Scope 1: 13,685 tons; Scope 2: 28,701 tons; Scope 3*2: 27,502 tons)

- **Amount of GHG (CO_2) Fixed and Reduced: 96,465 tons**

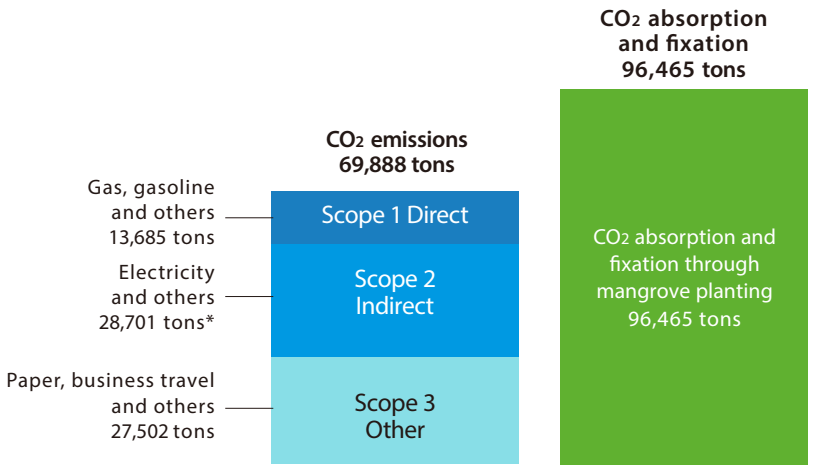
  Tokio Marine Group is working to reduce its environmental impact (domestic and international) and become carbon neutral by 1) conserving energy and using energy more efficiently, 2) planting mangroves to absorb and fix CO_2, 3) using renewable energy (such as by procuring green electricity) and 4) amortizing carbon credits. As a result of these efforts, the absorption and fixation effects of mangrove planting and the use of carbon credits outperformed the CO_2 emissions generated by the Group's overall business activities for the 11th consecutive year (since fiscal 2013).

  The value of ecosystem services generated through the Mangrove Planting Project from April 1999 to the end of March 2023 has reached approximately 202.3 billion yen. We expect the value to climb to 638.7 billion yen by the end of fiscal 2042*3. As of March 31, 2025, we have planted a total area of 12,970 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



* CO_2 emissions include the effect of purchasing green power, etc., of 22,516 tons.

CO_2 Emissions of Tokio Marine Group (Tokio Marine Holdings and Major Subsidiaries)

	Unit	Fiscal 2020	Fiscal 2021	Fiscal 2022	Fiscal 2023
Scope 1 (Direct emissions: Gas, heavy oil, gasoline, etc.)	Ton	13,163	13,022	13,362	13,685
Scope 2 (Indirect emissions: Electricity, steam, chilled/hot water)	Ton	53,977	47,435	41,190	28,701
Scope 3 (Other indirect emissions) (Category 1, 3, 5, 6)*3	Ton	22,754	23,026	25,649	27,502
Total	**Ton**	**89,894**	**83,483**	**80,201**	**69,888**

GHG Emissions for Investment Portfolio

Tokio Marine Group analyzes the total GHG emissions and weighted average carbon intensity (WACI) of our investment and financing portfolios, the disclosure of which is recommended by TCFD, with the aim of achieving our target of reducing GHG emissions to net zero by fiscal 2050 (including investment and financing recipients). Recently, we expanded the number of companies subject to analysis, which was previously limited to Tokio Marine & Nichido, and analyzed the portfolios of listed equities and corporate bonds as of March 31, 2024 at major Group companies engaged in the insurance business[*1,2].

Based on the analysis, we will help investment and financing recipients work toward a decarbonized society through engagement.

Total GHG emissions of Tokio Marine Group (Scopes 1 & 2; million tCO2e)

①By asset[*3]

Asset	Fiscal 2023
Equities	1,939
Bonds	2,390
Total	4,330

②By region[*4]

Region	Fiscal 2023	
	Equities	Corporate bonds
Japan	1,782	963
North America	8	797
Asia (excluding Japan)	149	606
Europe and others	–	24

③By sector[*5]

Sector	Fiscal 2023	
	Equities	Corporate bonds
Energy and electricity	282	1,671
Goods and services	757	220
Finance and real estate	6	34
Telecommunications	30	17
Chemicals, materials and healthcare	803	383
Consumer necessities and others	60	65

Weighted average carbon intensity of Tokio Marine Group (tCO2e/million USD)

①By asset[*3]

Asset	Fiscal 2023
Equities	102
Bonds	326

②By region[*4]

Region	Fiscal 2023	
	Equities	Corporate bonds
Japan	94	353
North America	136	294
Asia (excluding Japan)	234	436
Europe and others	–	124

③By sector[*5]

Sector	Fiscal 2023	
	Equities	Corporate bonds
Energy and electricity	956	1,446
Goods and services	63	136
Finance and real estate	12	22
Telecommunications	40	33
Chemicals, materials and healthcare	357	299
Consumer necessities and others	69	82

Total GHG emissions:
GHG 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

*1 Data may be subject to change retrospectively.
*2 We measured 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.
*3 The figures in the table cover 93.9% of the listed equities in the portfolio (based on the market value). Likewise, the figures in the table cover 77.2% of the bonds in the portfolio (based on the book value).
*4 Data by region is classified based on the geographical location of Group companies.
*5 Data by sector is classified based on our own sector classification.

Eco-Friendly Insurance Products Engaging Customers: Green Gift Project

Tokio Marine & Nichido has been carrying out the Green Gift Project based on the concept of engaging customers in eco activities. Under this project, when a customer chooses web-based insurance contracts (clauses) rather than a paper-based contract in brochure form, the company donates funds corresponding to a portion of the paper reduction costs to NPOs and NGOs involved in environmental protection activities. These funds are then used for mangrove planting overseas and environmental protection activities in Japan, including activities to protect the sea and forests (protection and restoration of eelgrass beds, Collaborative Afforestation Project in Kochi Prefecture and restoration projects of the coastal forests of Tohoku Region damaged in the Great East Japan Earthquake).

In fiscal 2024, the number of contracts taking advantage of the web policy option was approximately 15 million, representing a reduction in paper usage of approximately 3,326 tons.

*1 This initiative has relevance to the following targets among the 23 targets of the Kunming-Montreal Global Biodiversity Framework (GBF).
Target 2: Restore ecosystems; Target 8: Tackle climate change; Target 10: Sustainable management of agriculture, fisheries and forestry; Target 15: Assess and disclose impacts of companies

• Targets Related to Tokio Marine & Nichido's Green Gift Project

Percentage of web-based contracts: 80% or higher

Total area of mangrove forest planted (from fiscal 2024 to fiscal 2028): 970 hectares

• Results of Tokio Marine & Nichido's Green Gift Project

	Unit	Fiscal 2021	Fiscal 2022	Fiscal 2023	Fiscal 2024
Number of web-based contracts	Million	12.2	12.18	14.30	15.0
Percentage of web-based contracts Super Insurance Auto insurance	 % %	 88.2 77.4	 90.1 81.0	 92.7 89.1	 93.8 90.2
Reduction in paper usage	Ton	2,740	3,072	3,318	3,326

	Unit	Fiscal 2021	Fiscal 2022	Fiscal 2023	Fiscal 2024
Area of mangrove forest planted (total since fiscal 1999)	Hectare	11,935	12,261	12,597	12,970
Annual CO_2 fixation through mangrove planting	t-CO_2	110,000	100,000	96,000	82,000
Activities to protect and restore eelgrass beds		—	Conducted in Tokyo Bay	Conducted in 3 places including Tokyo Bay	Conducted in 4 places including Tokyo Bay
Annual CO_2 absorption through collaborative afforestation in Kochi Pref.	t-CO_2	406	476	465	383

Tokio Marine & Nichido published its 100-Year Mangrove Plantation Declaration in 2007 and Mangrove-based Value Co-creation 100-Year Declaration in 2019 and is committed to being involved in mangrove planting and value co-creation for 100 years. Based on these declarations, the Company has been working to increase the percentage of web-based insurance contracts to about 80% or higher and to plant 970 hectares of mangrove forest over the five years from fiscal 2024 to 2028.

Promoting 3Rs (Reduce, Reuse, and Recycle)

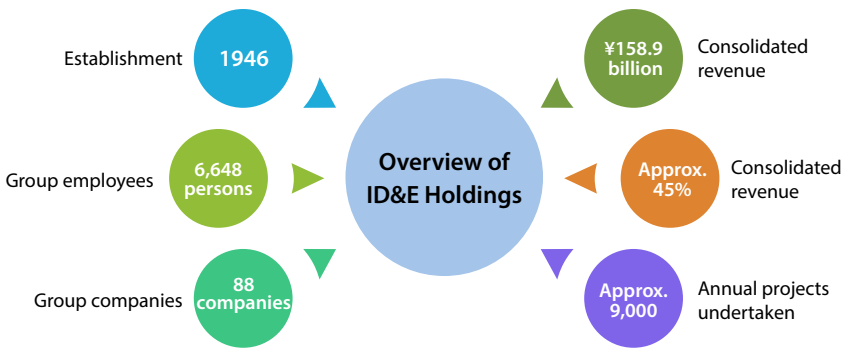
Paper and Water Usage and Waste Generation of Tokio Marine Group (Tokio Marine Holdings and Major Subsidiaries)

	Unit	Fiscal 2021	Fiscal 2022	Fiscal 2023	Fiscal 2024
Paper usage	Ton	5,655	5,171	5,141	Now being compiled
Water usage	kl	1,736	1,947	522	Now being compiled
Waste generation	Ton	1,837	1,911	1,387	Now being compiled

Even though the figures varied significantly due to the COVID-19 pandemic from fiscal 2021 to fiscal 2022, Tokio Marine Group always endeavors to reduce its paper and water usage and waste generation by achieving set targets. Fiscal 2024 results will be added as soon as calculations are complete.

Special Feature 1: ID&E Group's Efforts to Offer Solutions to Address Environmental and Societal challenges

With natural disasters intensifying in Japan and overseas, Tokio Marine Group has identified "improving disaster resilience" as one of its material issues (materiality) and has provided value beyond conventional insurance products. In November 2024, we announced our intention to welcome ID&E Holdings (hereinafter "ID&E Group"), a leading construction consulting firm, as a wholly owned subsidiary through a tender offer to better promote resilience-related initiatives. The tender offer was completed in February 2025.

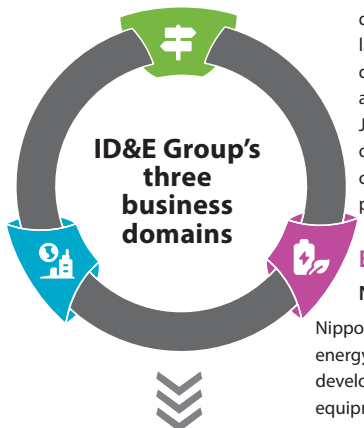


ID&E Group is a consulting and engineering firm that ensures safety and security for customers around the world. Centered around Nippon Koei, a leading construction consulting firm, it engages in a wide range of processes from planning and design to construction management of social infrastructure. Its business spans infrastructure development such as dams, rivers and roads; urban development planning; disaster prevention and mitigation measures; and renewable energy projects. With advanced technical capabilities cultivated as a professional and service expertise in a broad range of areas, it has established an impressive track record and built relationships of trust with government agencies and local governments in Japan with its consulting services. The group contributes to the establishment of a sustainable society by providing comprehensive solutions, from the development of disaster-resilient infrastructure in Japan to urban development in developing countries.

Urban & Spatial Development Business

Nippon Koei Urban Space Co., Ltd., BDP Holdings Ltd.

Nippon Koei Urban Space engages in comprehensive urban development, including disaster prevention planning and smart city development, by leveraging combined technologies and abundant experience in civil engineering and architecture. The company provides one-stop solutions from planning to operation of projects for disaster recovery and community development.



Consulting Business

Nippon Koei Co., Ltd.

Nippon Koei engages in preliminary surveys, design and the development of flood and landslide countermeasures of infrastructure development projects, including roads, airports, dams, rivers, water and sewerage, in Japan and overseas. With its strengths in disaster prevention technologies, the company participates in infrastructure projects around the world.

Energy Business

Nippon Koei Energy Solutions Co., Ltd.

Nippon Koei Energy Solutions engages mainly in energy management, the production and system development of generators and substation equipment and power consulting. The company supports initiatives to realize a sustainable society, including regional energy self-sufficiency.

Building Capacity to Provide Solutions

Tokio Marine Group can now provide one-stop solutions in the domain of disaster resilience, from "having an accurate grasp of the situation" and "implementing response measures" through to "financial compensation (insurance claims payment)" and "recovery, maintenance and management." In the domain of disaster prevention, with ID&E Group undertaking the design of the most suitable disaster prevention plans by utilizing more advanced risk assessments and their results, Tokio Marine Group is able to make direct contributions to enhance the resilience of both customers and society that go beyond conventional financial compensation of insurance.

Providing Value to as Many Customers as Possible

Having cultivated advanced technical capabilities over the years through public works projects, ID&E Group is able to provide solutions for improving social resilience. It now intends to apply its expertise to the private market as part of its management policy. Harnessing the customer base and network of Tokio Marine Group, we can now provide customers around the world with ID&E Group's solutions for both public- and private-sector projects.

The Paris Agreement established the goal of limiting the global average temperature increase to 1.5°C above the pre-industrial level. Nippon Koei, a member of ID&E Group, and University of Riau in Indonesia signed a memorandum of cooperation in 2024, and have been working together on initiatives on biochar derived from palm oil waste. The company also signed a memorandum of cooperation in the field of biochar with Brazil-based Embrasca in 2024. Nippon Koei aims to contribute to protecting the global environment and local communities through efforts to remove greenhouse gases (GHG) with biochar, which makes effective use of waste.

1. CDR and Biochar

As various GHG reduction measures are being taken around the world to conform to the levels required by the Paris Agreement (limiting the global temperature rise to 1.5°C above the pre-industrial level), carbon dioxide removal (CDR) is playing an important role in achieving carbon neutrality. CDR techniques show promise for offsetting residual emissions in sectors such as industry, transportation and agriculture that are considered hard to abate.

Biochar (black carbon produced from biomass sources), for which initiatives are being undertaken all over the world, is one CDR technique. Biochar is known to enhance carbon sequestration in soil and concrete and improve soil quality. It is attracting attention as a technology that supports carbon storage in buildings as well as regenerative agriculture and carbon sequestration in agriculture that make effective use of organic waste, such as agricultural residue.

2. Feasibility Study on Biochar by Nippon Koei in Riau Province, Indonesia

Nippon Koei was entrusted with and implemented an inter-city collaboration project (the Ministry of the Environment) between Kawasaki City and Riau Province of Indonesia from fiscal 2019 to fiscal 2024. Riau Province is located in central Sumatra and is known as one of the world's leading palm oil production areas. As part of the project, Nippon Koei conducted a study aimed at creating an environmentally harmonious economic society through the effective use of palm-derived waste.

Through this project, Nippon Koei has established a relationship with University of Riau, which led to the in-house feasibility study on biochar with the support of local NPO and community groups.

The study was carried out in collaboration with the Faculty of Agriculture of University of Riau in 2024 to explore the potential conversion of waste caused by the palm oil industry, including empty fruit bunches, main veins and trunks of old trees, into biochar, using a simple, internationally recognized method. The study partners conducted biochar production and component analysis at the university, and estimated the biochar carbon credits generated from applying biochar into soil. In the future, they hope to issue carbon credits through this initiative.

In addition to CDR through the effective use of palm-derived waste, this initiative is expected to bring other benefits, such as helping smallholder farmers* through regenerative agriculture using biochar, and preventing forest fires that may occur due to forest biomass abandoned in the forest. Nippon Koei and University of Riau will verify the effects of the application of biochar to peatlands and palm plantations, for which there has been little data so far, with the aim of accumulating scientific knowledge in the biochar field.

Decarbonization efforts are indispensable to achieve the 1.5°C goal of the Paris Agreement and ensure the sustainability of the global environment. In addition to CDR initiatives using biochar, ID&E Group is working on decarbonization on a global scale through consulting services in a variety of related fields, including urban development, transportation, forest conservation and renewable energy. The group also supports the decarbonization efforts of companies and other organizations primarily through the joint crediting mechanism (JCM), which facilitates the discovery of carbon credit projects and issuance of credits. ID&E Group will continue to work harder to pass on the irreplaceable, sustainable global environment to future generations.

* A group of farmers due to obtain the Roundtable on Sustainable Palm Oil (RSPO) certification will be selected to ensure the effective use of palm-derived waste

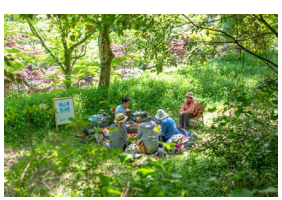
Special Feature 2:
Efforts in Achieving the 30 by 30 Target through Tokio Marine & Nichido Forest for the Future (Higashiyama Forest Park in Aki City, Kochi Prefecture)

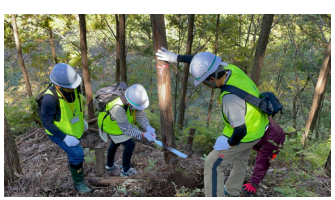
The Paris Agreement established the goal of limiting the global average temperature increase to 1.5°C above the pre-industrial level. Nippon Koei, a member of ID&E Group, and University of Riau in Indonesia signed a memorandum of cooperation in 2024, and have been working together on initiatives on biochar derived from palm oil waste. The company also signed a memorandum of cooperation in the field of biochar with Brazil-based Embrasca in 2024. Nippon Koei aims to contribute to protecting the global environment and local communities through efforts to remove greenhouse gases (GHG) with biochar, which makes effective use of waste.

1. Sites in Harmony with Nature

Areas where biodiversity is preserved through private initiatives are officially recognized by the Japanese government. The scheme is one of initiatives introduced to achieve nature positive. Certified areas, which should be outside of formally protected areas, are also registered in the internationally recognized Other Effective area-based Conservation Measures (OECM)[*1] database.

We have been a member of the 30 by 30 Alliance for Biodiversity[*2] since March 2022, and introduced initiatives to obtain the certification.





*1 Areas that help protect biodiversity distinct from protected areas
*2 A voluntary coalition formed by local governments, companies and NPOs to effectively protect at least 30% of land and sea areas with the goal of halting and reversing biodiversity loss (i.e., become nature positive) by 2030.

2. Tokio Marine & Nichido Forest for the Future (Higashiyama Forest Park)

Tokio Marine & Nichido Forest for the Future is covered under a Collaborative Afforestation Partners Agreement, which it concluded with Kochi Prefecture, Aki City and the Eastern Kochi Forestry Association in 2009.

Higashiyama Forest Park, part of the forest certified as a site in harmony with nature, is located in the southeast of Aki City, Kochi Prefecture. Every year, employees conduct a volunteer tour to allow participants to experience tree thinning and learn about the environment. Citizen groups also hold forest bathing events to fully appreciate the ecosystem services of the forest park. Ioki Cave, a designated natural monument known for its thriving fern colony, is located on the west side of Higashiyama Forest Park. Fresh water from the forest park is always flowing to the cave, maintaining the ideal temperature and humidity for the ferns. These are the reasons why this forest park has been certified as a site in harmony with nature. Tokio Marine & Nichido will continue to encourage forest conservation initiatives and monitor progress regularly to help achieve the 30 by 30 target.

Taking climate action while at the same time achieving nature positive, which is to halt and reverse the loss of natural capital and biodiversity, is essential for protecting the global environment. In addition to the Tokio Marine & Nichido Forest for the Future project, Tokio Marine Group has carried out environmental protection activities such as the Mangrove Planting Project and the protection and restoration of eelgrass beds. We regard the conservation of natural capital and biodiversity as an important issue that must be addressed head-on. As such, we have been striving to tackle nature-related challenges by making various efforts such as developing and providing insurance products and services as well as investing in a forestry fund. Tokio Marine Group will continue to step up its efforts to pass on the irreplaceable, sustainable environment to future generations.

Appendix 1

Information about Dependencies and Impacts on Nature in Our Insurance Underwriting and Investment and Financing

Nature Dependencies Heatmap

Ecosystem Services	Surface water	Groundwater	Flood and storm protection	Mass stabilization and erosion control	Climate regulation	Water flow regulation	Water quality	Mediation of sensory impacts	Dilution	Filtration	Bio-remediation	Fibers and other materials	Ventilation	Genetic materials	Soil quality	Pest control	Maintain nursery habitats	Pollination	Animal-based energy	Buffering and attenuation of mass flows	Disease control
Energy																					
Materials																					
Industrials																					
Consumer Discretionary																					
Consumer Staples																					
Health Care																					
Financials																					
Information Technology																					
Telecommunication Services																					
Utilities																					
Real Estate																					

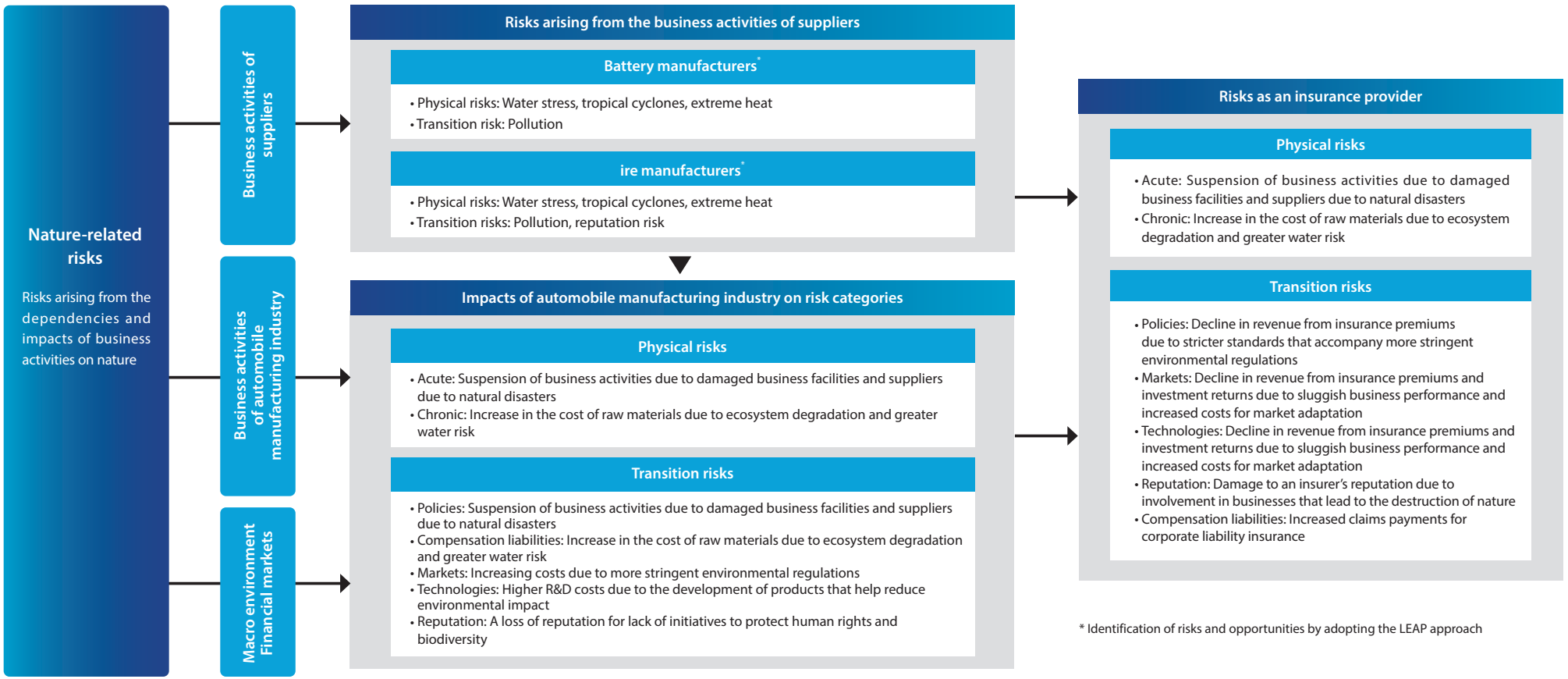
Nature Impacts Heatmap

Impact Drivers	GHG emissions	Solid waste	Water pollutants	Soil pollutants	Water use	Non-GHG air pollutants	Terrestrial ecosystem use	Noise and light pollution	Freshwater ecosystem use	Marine ecosystem use	Other resource use
Energy											
Materials											
Industrials											
Consumer Discretionary											
Consumer Staples											
Health Care											
Financials											
Information Technology											
Telecommunication Services											
Utilities											
Real Estate											

Low — High

Appendix 2

Nature-related Risks and their Transmission Channels in the Automobile Manufacturing Industry



* Identification of risks and opportunities by adopting the LEAP approach

Tokio Marine Holdings

Inspiring Confidence.
Accelerating Progress.