

Tokio Marine *Insights:*

Our Climate Strategy & TCFD

January 21, 2021



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- I. Climate Strategy**
- II. Promotion of Climate-Related Financial Disclosures in Accordance with TCFD Recommendations**
- III. ERM and Climate-Related Risk Management**
- IV. Reference**



Our Sustainability

Providing solution for various social issues through business activities results in sustainable growth for the company

Our initiatives on sustainability matches our business purpose

Our unchanging purpose

Protect our customers and society in times of need by delivering safety and security

Making society resilient to natural disasters



Increase safety and security in driving



Create safe and secure network society



Elimination of poverty in society



Create society based on health and longevity



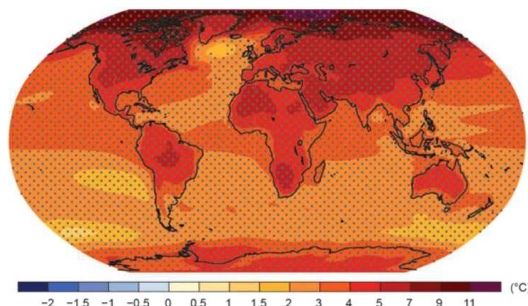
- **Use accumulated knowledge and experience as an insurance company to resolve social issues of each era and each region**
- **Continue to solve various social issues through business activities and contribute to creation of a sustainable society**

Impact of Climate Change and Our Initiatives

Especially on climate change, squarely face the issue as an insurance company, an institutional investor and a global leader, and actively engage in creation of environment and society where people may live in comfort

Global climate change projections

- By 2040–2050, global average temperature is expected to rise by about 2°C above pre-industrial levels (already increased by about 1°C)
- It may rise by up to 4.8°C by the end of 21st century



Projection of change in temperature by the end of 21st century (average for 2081–2100)*1

*1: Average of RCP8.5 scenario projections using multiple climate models to calculate change from average temperature between 1986–2005 (source: IPCC fifth assessment report)

Negative impact of climate change

- Loss of land from rising sea level
- Intensified natural catastrophes
- Increased agricultural damage from droughts, etc.
- Destruction/change in ecosystems/biodiversity
- Increased hunger/communicable diseases ...

Social changes due to climate change

- National resilience
- Growing awareness towards the environment and disaster prevention
- Transition to decarbonized society ...



Adopted the Paris Agreement at COP21 setting out the 2°C



UN General Assembly adopted the 2030 Agenda for Sustainable Development



International strategy for disaster prevention was discussed at the UN World Conference on Disaster Risk Reduction

Our initiatives

- Address climate change from early on*2
- Voluntarily implement measures against climate change from 3 standpoints to support transition to decarbonized society

As an insurance company

As an institutional investor

As a global leader

- Announced our policies and initiatives on climate change and accelerated the initiatives

[Posted on our website (September 28, 2020)]

"Tokio Marine: Our Climate Strategy"

https://www.tokiomarinehd.com/en/sustainability/news_publication/

*2: For example, Tokyo Marine & Nichido announced its Comprehensive Program on Global Warming (November 12, 2007)

Climate Strategy (as an insurance company)

Protect customers and society in their times of need and exercise underwriting practices that will enable us to contribute to a decarbonized society towards the achievement of the 2°C target of the Paris Agreement

Efforts as an insurance company

■ Support of victims through insurance

- Enhance support for victims of disaster (Total 22,000 employees mobilized to affected areas in Japan in fiscal 2019)
- Digitalize whole insurance payment process to complete insurance claim procedure online
- Earthquake index insurance (first in Japan)
- Hurricane index insurance (first in US)

⇒ **Quick insurance payment, etc.**



On-site
damage assessment



Utilize satellite images for
damage assessment

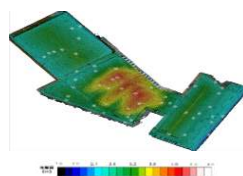
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■ Contribute to creation of a disaster resilient society

- Sophisticated risk survey and disaster reduction measures using drones
- TRC to provide disaster education and training services
- Support municipal and corporate BCP preparation
- Personalized video sent from Mobile Agent (app) to prepare for disaster
- Useful information and alert on disaster prevention/mitigation
- NADIAct: Enterprise Disaster Prevention and Mitigation Alert System
- Support early business reopening with advanced cleaning technology of a disaster recovery specialist BELFOR

⇒ **Support disaster prevention & reduction and early recovery & reconstruction**

- Consider creating a sustainable fire insurance



Ground height analysis
using a drone

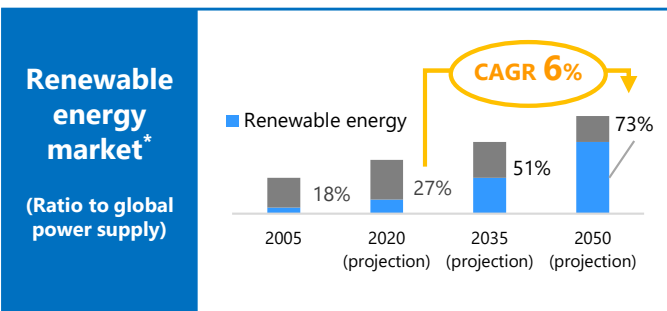


NADIAct: Enterprise Disaster
Prevention and Mitigation
Alert System

■ Contribute to sustainable global environment

- Actively offer insurance and services to clean energy business
- Encourage wider use of environmentally-friendly drones
- M&A strategy incorporating ESG perspectives (GCube)
- In principle, not provide new insurance underwriting capacities to coal-fired power generation projects

⇒ **Contribute to transition to decarbonized society to control global warming**



*Source: McKinsey

Climate Strategy (as an institutional investor/global leader)

- **Support transition to decarbonized society as an institutional investor in accordance with the ESG investment policy**
- **As a global leader, voluntarily implement measures against climate change through participation in various initiatives and constructive dialogue and collaboration with the society**

Efforts as an Institutional Investor

■ Support transition to decarbonized society

- Tokio Marine & Nichido and Tokio Marine Asset Management are signatories of the United Nations-supported Principles for Responsible Investment (PRI)
- Promotion of ESG investment (ESG engagement, investment decisions with consideration to ESG)
- Origination of fund for supporting clean energy business, investment in green bonds
- In principle, not provide new financing for coal-fired power generation projects

Performance of Renewable Energy Funds (As of March 31, 2020)

Amount committed: **Approx. ¥45 bn**

Units installed: **42**



Commitment as a global leader

■ Join international initiatives, etc.

- Lead discussion on "Climate Change and Emerging Environmental Topics" as joint-chair of Geneva Association WG
- Support promotion of disaster insurance in Asia-Pacific at APEC "Disaster Risk Finance and Insurance Solutions" WG
- As a founding member of TCFD, lead TCFD discussions in Japan and overseas to promote and enhance information disclosure



■ Initiatives to realize carbon-neutral

- Achieved carbon-neutral for seven consecutive years
- Total economic value created by mangrove planting project started nearly two decades ago is about ¥118.5 billion (as of end of March 2019)
- Mangrove-based Value Co-Creation 100-Year Declaration

Purpose of TCFD Disclosure

To resolve climate related issues and achieve Paris Agreement target, companies are required to identify climate-related risks/opportunities and prove resilience of their strategy with scenario analysis to promote informed investment

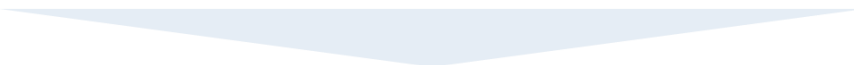
■ Establishment of the world's common goal

- **COP21:** The Paris Agreement was adopted at the 21st session of the Conference of the Parties to the United Nations Framework Convention on Climate Change held in November to December 2015
- **Paris Agreement:** Framework for reducing greenhouse gas emission from 2020 to replace the Kyoto Protocol (effective as of November 4, 2016)

(1) **World's common long-term goal:** Control average global temperature increase to well below 2°C above pre-industrial revolution levels (pursuing efforts to limit the increase to 1.5 degrees)

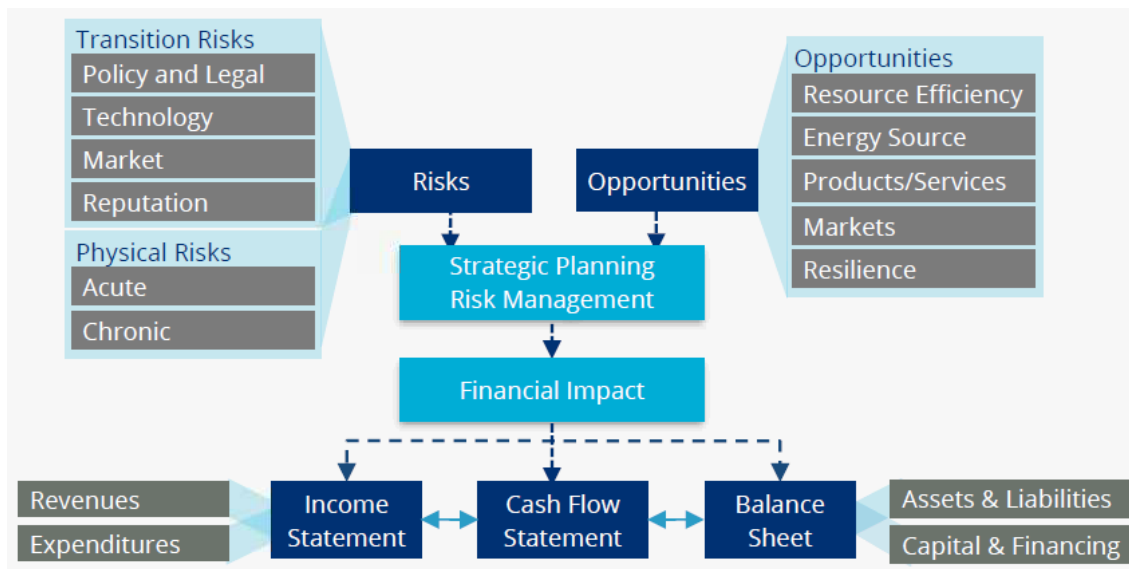
(2) **Net zero emissions:** To achieve carbon-neutral in the second half of the century, seek to peak greenhouse gas emissions as soon as possible

■ Financial Stability Board (FSB) established Task Force on Climate-related Financial Disclosures (TCFD)

- **G20 requirement:** In April 2015, G20 Finance Ministers and Central Bank Governors asked the FSB "to convene public- and private- sector participants to review how the financial sector can take account of climate-related issues"
- 
- **Establishment of TCFD:** FSB announced establishment of TCFD in December 2015 (Tokio Marine Group was an original member)
 - **TCFD recommendations:** In June 2017, TCFD released final report on a framework for voluntary disclosure that supports informed investment decisions (TCFD recommendations)
 - **Features of the recommendations:** Organizations should understand the climate-related risks and opportunities, and describe the resilience of the organization's strategy using scenario analysis

Understanding of Climate-Related Risks and Opportunities under TCFD

It is important for organizations to understand the transition/physical risks and opportunities and assess their impact on strategies



Investors need to understand how climate-related risks and opportunities are likely to impact on the cash flow, assets and liabilities of investment targets to make financial decisions

Example of Risks

Transition Risks

- **Policy and legal** (GHG emissions pricing, enhanced emissions-reporting, regulation of products/services, increased litigation)
- **Technology** (Substitution with low-carbon options, unsuccessful investment in new technologies, costs to transition to new technology)
- **Market** (Changing consumer behavior, uncertainty in market signals, increased cost of raw materials)
- **Reputation** (Stigmatization of a certain sector, increased stakeholder concern)

Physical Risks

- **Increased extreme weather events**
- **Changes in precipitation patterns**
- **Rising average temperature**
- **Rising sea levels**

Example of Opportunities

- **Resource efficiency**
(Use of efficient modes of transport, reduced operating costs through use of more efficient production and distribution process or use of smart buildings, increase of productivity/tangible asset value, improved employee health management)
- **Energy source**
(Reduced operational costs through use of lower carbon emission sources of energy, reduced exposure to energy price volatility)
- **Products and Services**
(Shift in consumer preferences, secure resilience to policy/regulatory changes)
- **Markets** (Increased demand for products/services, access to new markets)
- **Resilience** (Resource substitutes/diversification, increased reliability of supply chain)

TCFD disclosure for an insurance company

Insurance companies are especially required to enhance disclosure on risk management

Recommendation and Guidance (for All Sectors)

Governance

- Organization's governance around climate-related risks and opportunities

Strategy

- Potential impacts of climate-related risks and opportunities on the organization's business, strategy, and financial planning

Risk Management

- How the organization identifies, assesses, and manages climate-related risks

Metrics/Target

- Metrics and targets used to assess and manage relevant climate-related risks and opportunities

Supplemental Guidance for Insurance Companies

Strategy

- How climate-related risks and opportunities influence client or broker selection
- Development status of specific climate-related products
- Risk tolerance under a 2°C scenario as well as a greater than 2°C physical scenario

Risk Management

- Describe the physical risks from increasing frequencies and intensities of weather-related perils, reduction in insurable value resulting from transition to low-carbon economy, and increase in liability risks by geography and business division
- Risk models used to manage climate-related risks, range of climate-related events considered

Metrics

- Aggregated risk exposure to weather-related catastrophes of their property insurance

+ What are the climate-related risks for the insurance sector?

■ Three types of climate-related risks identified by financial regulators (UK example)

- **Physical risks**
Direct impacts such as damage to property, and indirect impacts such as disruption of global supply chains or resource scarcity arising from weather-related events such as floods, storms, etc.
- **Liability risks**
Risks arising from parties who have suffered loss and damage from climate change, and then seek to recover losses from others who they believe may have liability
- **Transition risks**
Financial risks arising from value fluctuation of carbon-intensive financial assets, through the transition to a lower-carbon society

+ What are the expected risk scenarios?

■ Scenario analysis

A process for identifying and assessing the potential implications of a range of plausible future events based on hypothesis. It is deemed to be useful for businesses to explore and develop an understanding of how various physical and transition risks caused by climate change may affect its businesses over time

- **Example of transition risk scenario**
 - IEA World Economic Outlook 450ppm ("2°C scenario")
 - IEA has also released 6°C, 4°C, and 2.6°C scenarios
 - Nationally determined contributions (NDCs) to refer to a 2°C pathway
- **Example of physical risk scenario**
 - IPCC RCP2.6 ("2°C scenario")
 - IPCC has also released RCP8.5 (high GHG emissions), 6.0 (medium-high GHG emissions), and 4.5 (medium GHG emissions) scenarios

Developments after the Release of TCFD Recommendations

- **Various overseas governments, financial regulators and institutional investors took action after the release of TCFD Recommendations**
- **In Japan, the government, investors and disclosing companies cooperated to promote the TCFD Consortium initiative**

Overseas Status

- **EU:** Discussions based on the Action Plan on Financing Sustainable Growth (March 2018)
- **UK:** Prudential Regulation Authority (PRA) issued Supervisory Statement (SS3/19) Enhancing banks' and insurers' approaches to managing the financial risks from climate change (April 2019)
- **France:** Article 173 of the French Energy Transition Law set forth climate-related disclosure (August 2015)
- **US:** Fed announced intervention on climate change (November 2019)

Requests from Institutional Investors

BlackRock CEO Larry Fink's Open Letter to CEOs
(January 2020)

"A Fundamental Reshaping of Finance" (excerpt)

- Initiatives to place sustainability at the center of our investment approach
- Releasing climate-related disclosure aligned with TCFD Recommendations
- Include business plan for operating under a scenario where the Paris Agreement's goal is fully realized, as expressed by the TCFD guidelines

Network for Greening the Financial System

- Voluntary network of central banks and financial supervisors established in December 2017 to enhance resilience of financial systems under the awareness that climate-related risks may be a source of financial risks
- A Call for Action: Climate change as a source of financial risk (April 2019)

Japan: TCFD Consortium

- Contributed to establishment/operation of TCFD Consortium as a founding member (from May 2019)
- Green Investment Guidance (October 2019)
- TCFD Guidance 2.0 (July 2020)



Source: TCFD Consortium

Our Initiatives to Promote TCFD Disclosure

- **Supporting promotion of TCFD disclosures by engaging in discussions and exchanging opinions with various organizations/industries**
- **Contribute to the transition to decarbonized society by enhancing climate-related disclosures reflecting the market**

Task force on Climate-related Financial Disclosures



- Contributed to the release of TCFD Recommendations (June 2017) as the original member
- Supported TCFD Recommendations with Integrated Report (August 2017)
- Promoted initiatives towards climate-related disclosure aligned with TCFD Recommendations as a signatory

United Nations Environment Programme Finance Initiative (UNEP FI)



- Promoted climate-change initiatives as a founding signatory of the Principles for Sustainable Insurance (PSI) spearheaded by the United Nations Environment Programme Finance Initiative (UNEP FI)
- Participated in PSI TCFD Insurer Pilot Working Group (from 2018) to promote climate-related disclosure aligned with TCFD recommendations in the insurance industry

The Geneva Association



- Leading insurance industry initiatives on climate change as Joint-Chairman of the "Climate Change and Emerging Environmental Topics" working group of the Geneva Association (from 2008)
- Released "Kyoto Climate Risk Statement" (2009/2014)
- Promoted initiatives to incorporate climate change into business strategy and risk management in the insurance industry and discussed actions on TCFD recommendations

Our Climate-related Disclosures



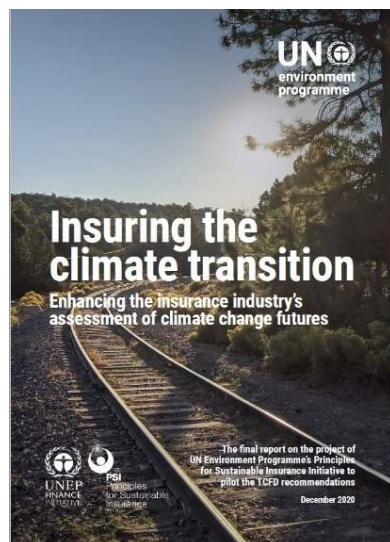
Tokio Marine Holdings

- TCFD-aligned climate-related disclosure (from fiscal 2017)
- Considering enhancement of contents reflecting latest trends through dialogue with international organizations, government, regulatory authorities and institutional investors
- Released "Tokio Marine: Our Climate Strategy" (September 2020)

Initiatives in Japan and Overseas (latest actions)

- **Contribute to formulating methodology for climate-related disclosure in accordance with TCFD recommendations through initiatives in Japan and overseas**
- **Support transition to decarbonized society through promotion of climate-related disclosure aligned with TCFD recommendations by businesses and insurance industry in Japan and overseas along with enhancement of our climate-related disclosure**

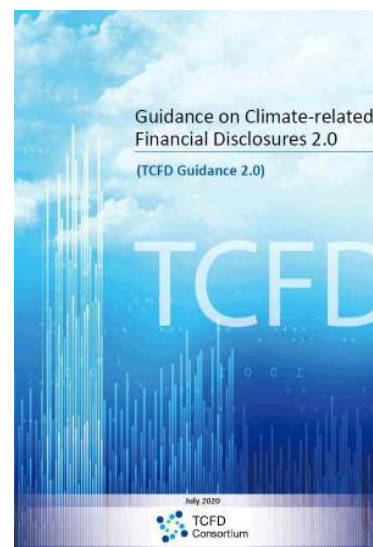
United Nations Environment Programme Finance Initiative (UNEP FI) PSI TCFD Insurer Pilot Working Group



Source: UNEPFI

- Review/development of methodology and analysis tools on climate-related disclosure for the insurance industry (from 2018)
- Contributed to “Insuring the climate transition” report (January 2021) promoting climate-related disclosure in the insurance industry
- Performed scenario analysis for physical/transition risks using IPCC/IEA scenarios (also trying to evaluate potential litigation risk analysis)
- First step towards promoting climate-related disclosure by the whole insurance industry

TCFD Consortium TCFD Guidance 2.0



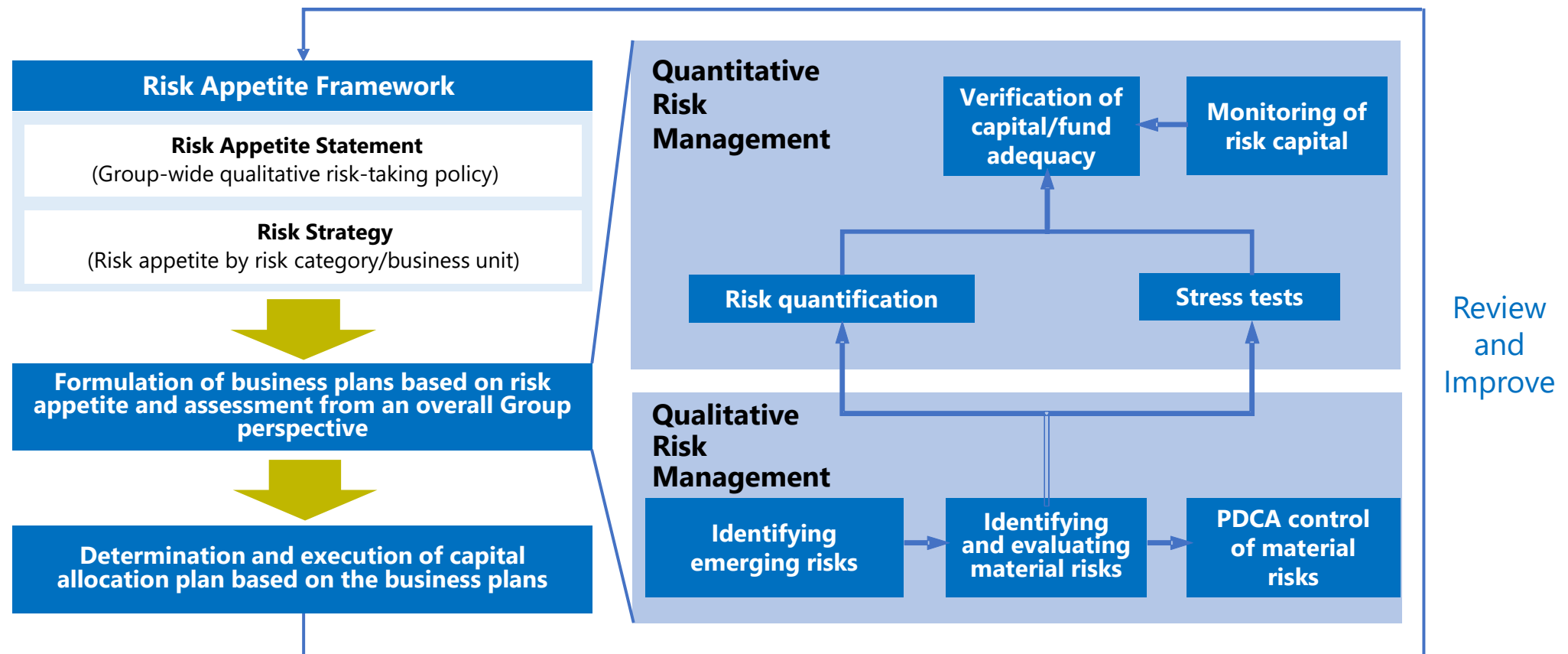
Source: TCFD Consortium

- Contributed to establishment and release of “Guidance 2.0” as the founding member of TCFD Consortium
- Recommended disclosure for non-life insurance:
 - Potential impacts of climate change
 - Impacts that may be brought to climate change
 - Enhancing risk management and reducing risks
 - Opportunities brought by climate change
- We were included in the Case Examples under “opportunities brought by climate change” (Strategy section)

Group Risk Management led by Enterprise Risk Management (ERM)

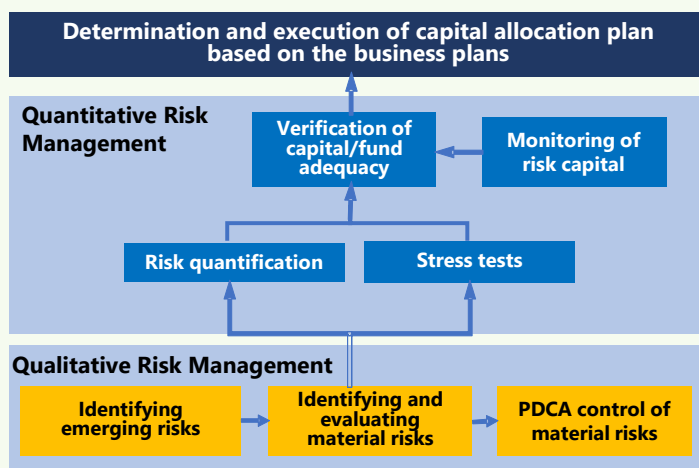
Risk management encompasses wide range of risks including climate-related risks to comprehensively grasp both qualitative and quantitative impacts on business

- Comprehensively grasp risks by both qualitative and quantitative approaches not limited to traditional risk management
- Business units execute strategies with capital allocation that incorporates risk aspects



Qualitative Risk Management

Comprehensively identify risks including emerging risks and identify natural catastrophes such as major wind and flood disasters as material risks

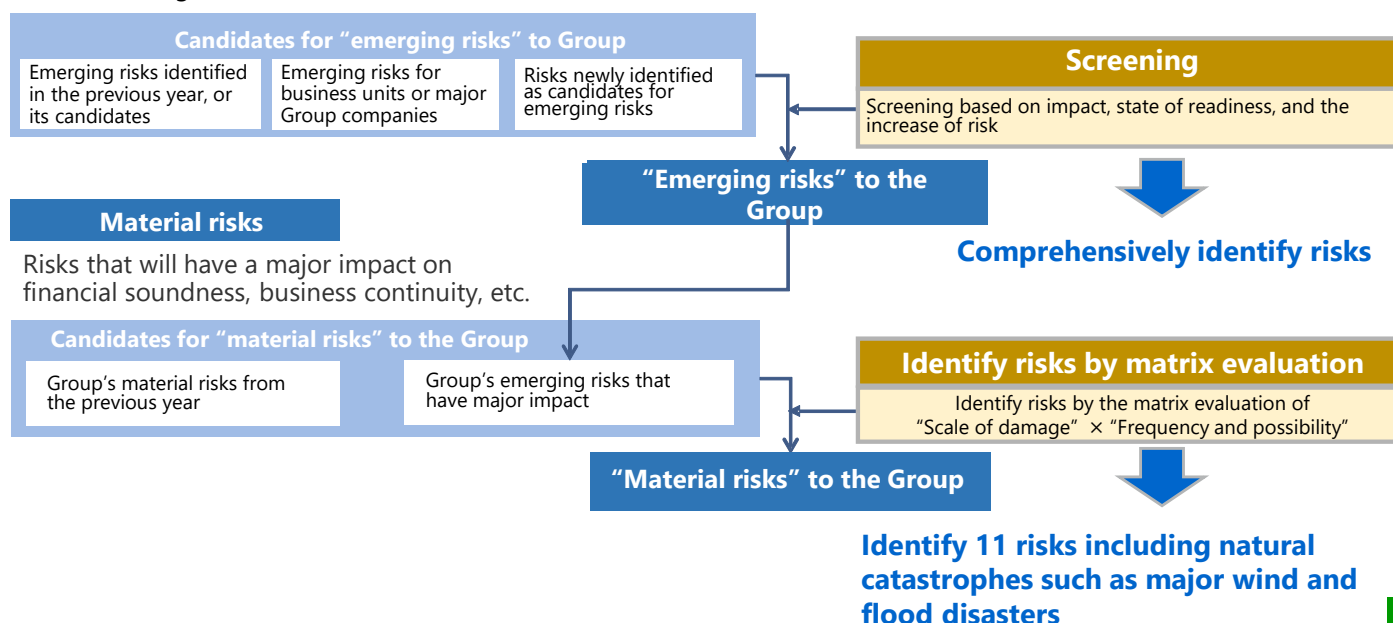


Identifying emerging risks and determining material risks

- Comprehensively identify risks including emerging risks that appear or significantly intensify as a result of environmental changes (including climate change)
- Natural catastrophes such as major wind and flood disasters shall be identified as material risks subject to verification of capital adequacy through quantitative risk management process (in the next slide), and preventive control measures before the risk takes place as well as the counter measures after the risk takes place are formulated and controlled by the PDCA cycle

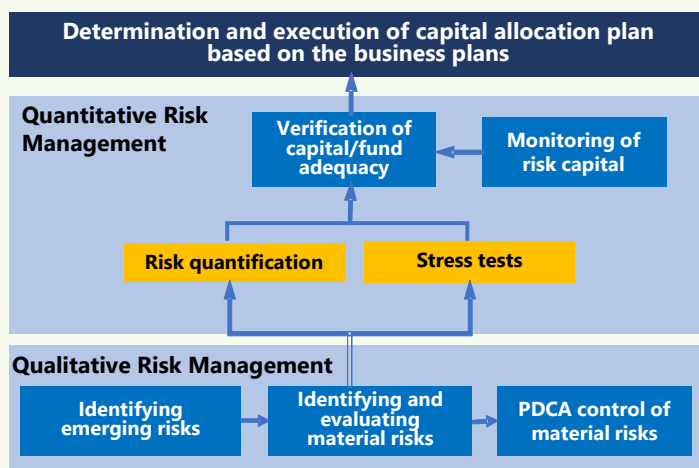
Emerging risks

New risks which have previously not been acknowledged as risks or risks whose severity has significantly increased, as a result of changes in environment and other factors



Quantitative Risk Management

Enhancement of risk models used for measuring the risk amount and stress tests



Measuring risk amount(natural catastrophe risk model)

Japan

In-house risk models developed based on engineering theories and latest knowledge related to natural catastrophes

Overseas

External vendor's models

Enhancement of risk models for physical risks

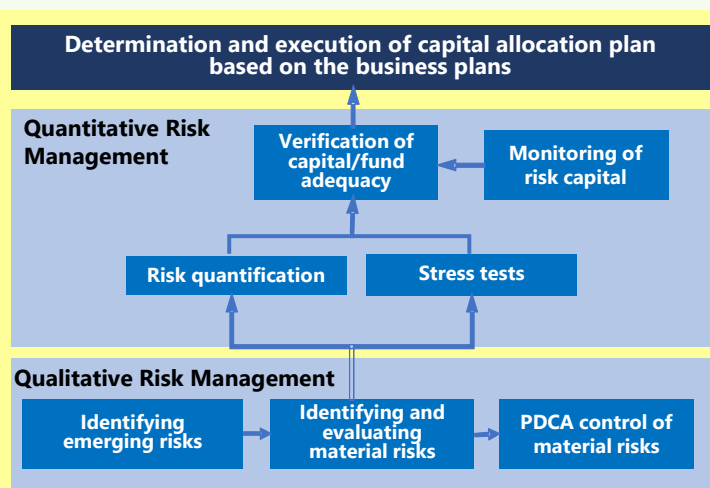
- Acquired latest knowledge through cooperation with Group companies that have expertise including Tokio Marine & Nichido Risk Consulting, Tokio Marine Research Institute, Natural Catastrophe R&D Team of Risk Management Department based in Atlanta, Georgia, and external experts to enhance in-house models (Japan) and review and evaluate the vendor's models (external) for reflecting the recent occurrence of natural catastrophes to the models

Natural catastrophe risks stress tests and enhancement

- Stress tests are conducted for material risks which have major economic loss in order to validate capital adequacy and funds liquidity
- Performed for severe cases such as huge natural catastrophes which are infrequent but will have massive impact
- Compared with stress tests disclosed by US and European peers, regulators and central banks, etc., to confirm sufficient stress is applied
- On-going update of scenarios by acquiring latest knowledge including on climate change

Acquirement of Climate-Related Risk Knowledge

Continue to enhance knowledge and implement appropriate enhancement of climate-related risk management



Knowledge that supports the above

Acquirement of climate-related risk knowledge

- Acquire latest knowledge on natural catastrophes including on climate-related risks through cooperation with Group specialists and external experts and report to management
- Continue to enhance knowledge on climate-related risks by participation in the United Nations Environment Programme, Finance Initiative (UNEP FI) TCFD Insurer Pilot Working Group and the Geneva Association's Climate Change and Emerging Environmental Topics Working Group, etc.

Grasping the impacts of physical risks

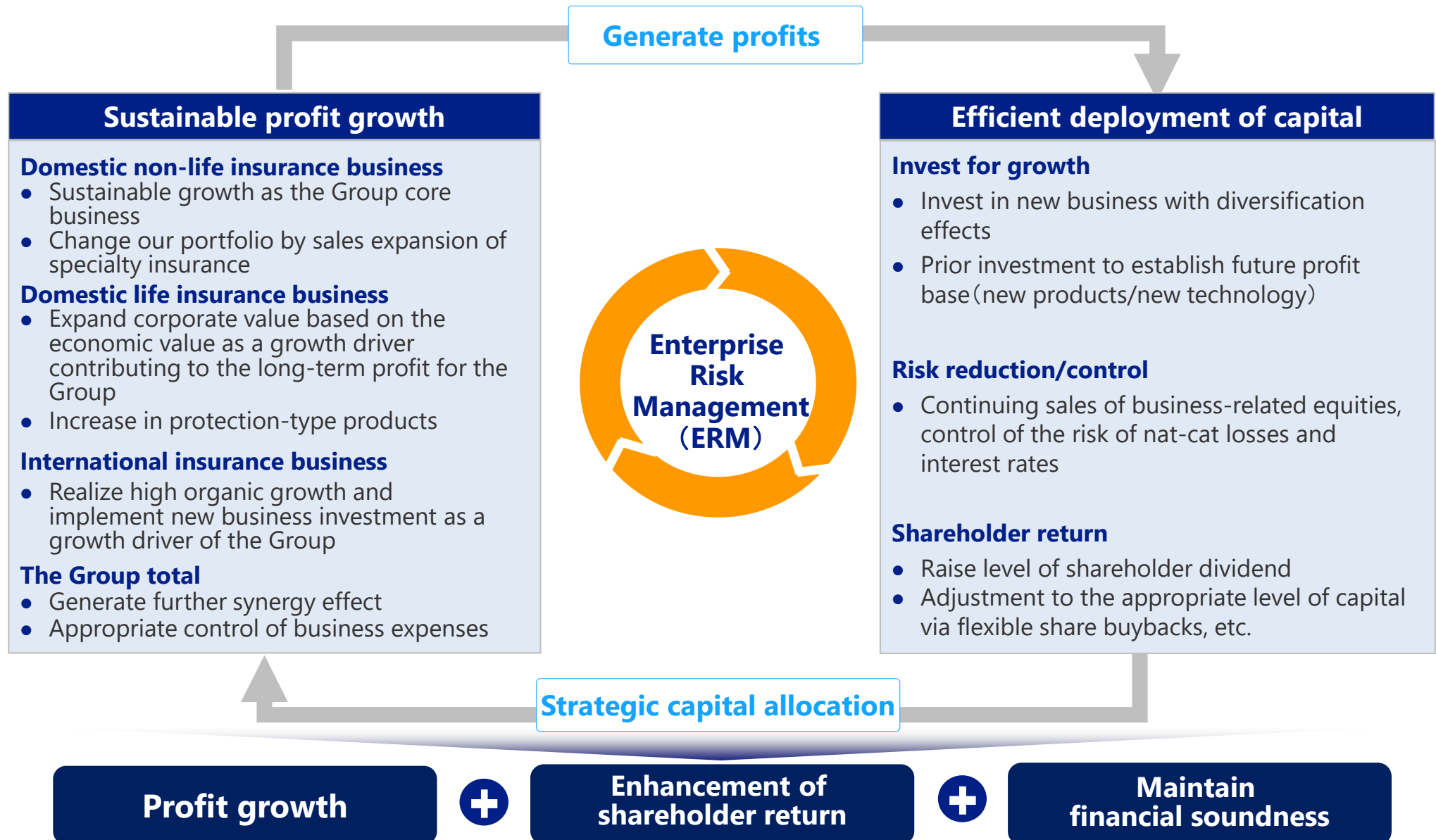
- Tokio Marine Research Institute focuses on the impact of climate change on physical risks through evaluation and calculation of loss impact by change in typhoon risks under future climate (IPCC RCP4.5 and RCP 8.5 scenarios) and flooding risks with increased precipitation (under 2°C and 4°C temperature rise)

Measures against transition risks for decarbonized society

- Identify exposure to transition risks (underwriting/investments and lending) and enhance products development framework
- Non-life insurance businesses tend to have relatively short-term contracts, enabling agile and flexible response to changes

Reference

Execute proactive risk management centering on ERM to maintain soundness and sustained profit growth



ESG (Sustainable Enhancement of Corporate Value) – Promoting ESG –

Participate in various international initiatives and conduct surveys, researches and proposals in order to solving social issues. Also, contribute to achieve SDGs by solving social issues utilizing our expertise in insurance and risk consulting

Initiatives Tokio Marine Group is participating in



UN Global Compact

- Expressed continuous support since becoming a signatory in 2005
- Participated in "Disaster Risk Reduction Working Group", "Reporting Study Group", etc. in FY2019



Principles for Responsible Investment

- In Tokio Marine Group, Tokio Marine & Nichido and Tokio Marine Asset Management became signatories to promote responsible and sustainable investment



United Nations Environment Programme Finance Initiative (UNEP FI)

- Participating as the Board Member for Asia of the UNEP FI Insurance Commission
- Lead discussion on disaster risk finance program at APEC "Disaster Risk Finance and Insurance Solutions" WG



Principles for Sustainable Insurance

- Became a signatory in 2012 as a drafting committee member. Joined the PSI TCFD Insurer Pilot Working Group in FY2018 to promote the creation of a framework for climate-related information disclosure in line with TCFD recommendations

Principles For Financial Action for the 21st century



IDF



Japan Sustainable Investment Forum



UNISDR Private Sector Alliance for Disaster Resilient Societies



The Geneva Association



ClimateWise



Asia-Pacific Financial Forum



CDP



Task Force on Climate - related Financial Disclosures



Eco First



COOL CHOICE



30% Club Japan



ESG (Sustainable Enhancement of Corporate Value)

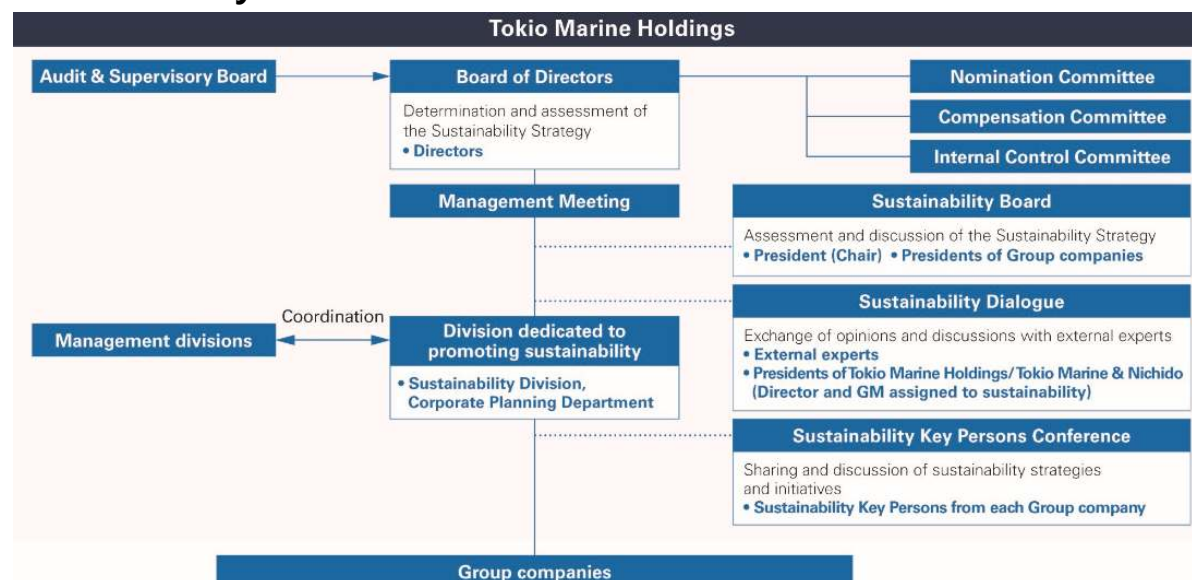
– ESG × SDGs, Promotion Structure –

		Relevant Sustainable Development Goals																
ESG Category	Initiative Theme	1 NO POVERTY	2 ZERO HUNGER	3 GOOD HEALTH AND WELL-BEING	4 QUALITY EDUCATION	5 GENDER EQUALITY	6 CLEAN WATER AND SANITATION	7 AFFORDABLE AND CLEAN ENERGY	8 DECENT WORK AND ECONOMIC GROWTH	9 INDUSTRY, INNOVATION AND INFRASTRUCTURE	10 REDUCED INEQUALITIES	11 SUSTAINABLE CITIES AND COMMUNITIES	12 RESPONSIBLE CONSUMPTION AND PRODUCTION	13 CLIMATE ACTION	14 LIFE BELOW WATER	15 LIFE ON LAND	16 PEACE, JUSTICE AND STRONG INSTITUTIONS	17 PARTNERSHIPS FOR THE GOALS
E S G	Promote environmental management																	
	Preserve biodiversity																	
	Promote development of clean energy																	
	Provide environmental awareness																	
	Make society resilient to natural disasters																	
	Create society based on health and longevity																	
	Respond to technological progress and changes in automotive lifestyle																	
	Address the increase in foreign visitors to Japan																	
	Eliminate poverty in society																	
	Realize an inclusive society																	
	Develop industrial foundations																	
	Increase employee motivation																	
	Enhance corporate governance																	
	Implement internal controls																	
	Practice risk management																	



For details, refer on P81, P84-85 in Integrated Report 2020

Sustainability Promotion Structure



Scope includes all issuers of stocks and bonds. Includes public and private pension funds and foundations as well as corporations

Governance	Strategy	Risk Management	Metrics and Targets
Disclose the organization's governance around climate-related risks and opportunities	Disclose the actual and potential impacts of climate-related risks and opportunities on the organization's businesses, strategy, and financial planning	Disclose how the organization identifies, assesses, and manages climate-related risks	Disclose the metrics and targets used to assess and manage relevant climate-related risks and opportunities
Recommended Disclosures	Recommended Disclosures	Recommended Disclosures	Recommended Disclosures
a) Describe the board's oversight of climate-related risks and opportunities	a) Describe the climate-related risks and opportunities the organization has identified over the short, medium, and long term	a) Describe the organization's processes for identifying and assessing climate-related risks	a) Disclose the metrics used by the organization to assess climate-related risks and opportunities in line with its strategy and risk management process
b) Describe management's role in assessing and managing climate-related risks and opportunities	b) Describe the impact of climate-related risks and opportunities on the organization's businesses, strategy, and financial planning	b) Describe the organization's processes for managing climate-related risks	b) Describe Scope 1, Scope 2, and, if appropriate, Scope 3 greenhouse gas (GHG) emissions, and the related risks
	c) Describe the resilience of the organization's strategy, taking into consideration different climate-related scenarios, including a 2°C or lower scenario	c) Describe how processes for identifying, assessing, and managing climate-related risks are integrated into the organization's overall risk management	c) Disclose the targets used by the organization to manage climate-related risks and opportunities and performance against the targets

MEMO

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*To Be a **Good Company***



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