Resona Asset Management

Climate/Nature-related Financial Disclosure Report

2025/2026

Resona Asset Management

Akihiro Nishiyama

Representative Director & President,
Resona Asset Management Co., Ltd.

A Message from the President

One decade has passed since the adoption of the Paris Agreement and the SDGs. During this period, the world has seen a trend that could be described as a “backlash” against stricter policies and regulations, and some point out that progress on climate change measures has slowed. Meanwhile, the intensification of extreme weather events has become increasingly noticeable around the world as climate change has progressed in recent years. In 2025 as well, unprecedentedly severe torrential rains, floods, heat waves, and wildfires occurred one after another in various regions. The WMO (World Meteorological Organization) points out that the recent three-year period is expected to be the warmest on record, with the global average temperature rising by approximately 1.48℃ above pre-industrial levels. These effects of climate change are driving up food prices due to crop failures and declining fish catches, among other factors, and are significantly affecting our daily lives.

According to the World Economic Forum’s “Global Risks Report 2026,” climate/nature-related risks, such as “Extreme weather events,” “Biodiversity loss and ecosystem collapse,” “Critical change to Earth systems,” and “Natural resource shortages,” continued to rank among the most severe risks anticipated over the next decade. Even amid rising geopolitical risks, climate/nature-related risks have clearly been shown to remain at the center of the global risk structure.

Our company is an institutional investor that manages a large-scale assets totaling 58 trillion yen entrusted to us by our clients. To achieve our goal of “maximizing the medium- to long-term value of our total assets under management,” we must make a sincere commitment to maintaining and restoring “stable climates” and “abundant natural capital,” which serve as the foundation for economic growth and the business activities of our investee companies. Moreover, preserving the environmental foundation is essential to realizing our purpose: “to ensure a prosperous and happy life for future generations as well as our customers.”

In addition, the state of the climate and natural capital is deteriorating rapidly.

As a “Future Taker,” we believe we must not only accurately identify and adapt to current and future sustainability challenges but also, as a “Future Maker,” actively engage with the real world and take the initiative to create positive changes. Achieving this requires indispensable collaboration with a diverse range of stakeholders, including our investee companies. We aim to be a partner that helps shape a better future together through engagement and collaboration.

Climate change and the loss of natural capital/ biodiversity are key sustainability issues we consider material. To clarify our commitment and approaches for these issues, we established “Our Policy on Climate” and “Our Policy on Nature” in 2023. Under my leadership as the CEO, we are advancing company-wide efforts to tackle these issues proactively. This report systematically outlines our policies, initiatives, and progress in accordance with the frameworks recommended by the Task Force on Climate-related Financial Disclosures (TCFD) and the Task Force on Nature-related Financial Disclosures (TNFD), as well as the disclosure standards established by the Sustainability Standards Board of Japan (SSBJ).

We hope this report serves as a valuable resource for deepening your understanding of our activities related to environmental and climate issues and fosters even stronger collaboration between us and stakeholders who share our goal of building a better future.

Contents

A Message from the President 1
Our History 3
Introduction 4
General Requirements 6
Governance 8
1.Overview of Our Governance System on Sustainability Issues 8
2.Human Rights Policy and Stakeholder Engagements 10
Strategy 12
1.Analysis of Climate-related Risks and Opportunities 13
2.Analysis of Nature-related Risks and Opportunities 19
3.Next Steps based on the Results 31
4.Transition plan for achieving net-zero and a world in harmony with nature 39
Risk and Impact Management 44
Metrics and Targets 45
1.Climate-related Metrics and Targets 45
2. Nature-related Metrics and Targets 52
Conclusion 55

Our History

Climate/Nature-related Financial Disclosure Report 2025/2026

Since the signing of the PRI in 2008, we have been working to address material sustainability issues, such as climate change and natural capital, to build a sustainable environment and society through our investment activities. As one of the responsible long-term investors, we continue to strive to advance the sophistication of these efforts.

*Including the efforts of Resona Bank before January 2020, when we consolidated the asset management functions of its Trust Division

■ Climate-related
■ Nature-related

2008
Signed up to the PRI ■■
Signatory of: PRI Principles for Responsible Investment

2010
Signed up to the CDP ■■
CDP DRIVING SUSTAINABLE ECONOMIES

2002
Signed up to the Principles for Financial Action for the 21st Century ■■
21世紀金融行動原則

2017
Started in-house engagement on sustainable palm oil procurement ■■

2018
Joined Climate Action100+ and started collaborative engagement with 2 automotive companies as lead investors ■
Climate Action 100+

2020
Joined CDP Non-Disclosure Campaign and CDP SBT Campaign ■■

2021
Started disclosure aligned with the TCFD recommendations ■
TCFD TASK FORCE ON CLIMATE-RELATED FINANCIAL DISCLOSURES

Signed up to the Finance for Biodiversity Pledge ■
Finance for Biodiversity Foundation

Set a target to achieve net zero GHG emissions related to our direct operations (Scope 1 and 2) by fiscal 2030 (this target is applied to the entire Resona Group including us) ■

Signed up to the Japan Impact-driven Financing Initiative ■■
インパクト志向金融宣言 Japan Impact-driven Financing Initiative

Joined the TNFD Forum ■
TNFD Taskforce on Nature-related Financial Disclosures

Established the Global Impact Investment Fund (Climate Change) to invest in companies that significantly contribute to climate change mitigation, etc. ■■

2022
Added Policy on addressing shareholder proposals on climate change and escalation policy to the Policies and Standards in Relation to Proxy Voting ■

Joined the Finance for Biodiversity Foundation ■

2023
Established Our Policy on Climate (set a target to achieve net zero GHG emissions from scope 3 (our financed emissions) by 2050) ■

Launched “Resona ESG Ratings,” our own corporate evaluation method ■■

The Global Impact Investment Fund (Climate Change) received the fiscal 2022 Award of Minister of the Environment in the Principles for Financial Action for the 21st Century ■■

Certified as an “Eco First Company” by the Minister of the Environment (We are the first institutional investor certified)
Established Chief Sustainability Officer (CSuO) ■■
ECO FIRST

Established “Our Policy on Nature.” ■
Nature Action 100

Joined Nature Action 100 ■

Published our first “Climate/Nature-related Financial Disclosure Report” (TCFD/TNFD Report) ■■

Registered as a TNFD Early Adopter ■

2024
Joined PRI Spring as an endorser ■

Reviewed “Materiality for Responsible Investment” ■■

2025
Awarded the Excellence Award in the 1st Nikkei Institutional Investor Report Awards ■■

Reviewed the Basic Policy on Responsible Investment ■■

Finance for Biodiversity
Awarded the Nature Target Setting Leadership Award ■

Introduction

Climate/Nature-related Financial Disclosure Report 2025/2026

Our purpose is to “ensure a prosperous and happy life for future generations as well as our customers.” Climate change and the loss of natural capital are recognized as material sustainability issues that must be addressed to achieve our purpose. These issues are also deeply connected to our “Materiality for Responsible Investment.” We also believe that risks and opportunities related to climate change and natural capital (“climate/nature-related risks and opportunities”) have a significant impact on the performance of all of our investees, and as a result, on the value of our total assets in trust over the medium- to long-term.

Based on this recognition, we have been working to contribute to global efforts to combat these issues through our investment activities. We established “Our Policy on Climate” and “Our Policy on Nature” in 2023 through discussions at the Executive Committee, identifying these issues as critical management priorities. These policies outline our fundamental stance on these issues, our governance, approach, and other measures to address them, as well as enhancements to information disclosure about our initiatives. In line with these policies, we seek to further advance our efforts to address these issues.

Policy on Climate (Overview)

1. Our Commitment

- Based on the recognition that addressing climate change is essential to achieve our Purpose, we support the objectives of the Paris Agreement and aim to achieve net zero GHG emissions across scope 1, 2 and scope 3 category 15 (our financed emissions) by 2050, and contribute to the global efforts to combat climate change through our investment activities.

2. Climate-related Risks and Opportunities

- Climate change can pose various risks to our investee companies (intensified natural disasters could severely damage their business assets, and significant changes in climate-related regulations and policies, etc.), but companies that take proactive measures to mitigate or adapt to climate change can find opportunities. We assess these climate-related risks and opportunities.

3. Governance

- We receive appropriate supervision, including submitting regular reports to the Board of Directors on the status of our efforts to tackle climate change.

4. Our Approach

- We support our investee companies on their journey toward decarbonization through ESG integration, engagements, and proxy voting. In doing so, we seek to reduce GHG emissions across society, in line with our policy as a “Universal Owner.”
- We use appropriate metrics to monitor the performance of our measures.

5. Stakeholder Engagement

- Actively engage with diverse stakeholders, including market participants, NGOs, and public agencies.

6. Disclosures

- We seek enhanced disclosures on our climate change initiatives through an appropriate vehicle.

Policy on Nature (Overview)

1. Our Commitment

- Based on the belief that addressing the loss of natural capital and biodiversity is essential to achieving our Purpose, we support the 2050 Vision and the 2030 mission set out in the Kunming-Montreal Global Biodiversity Framework and contribute to global efforts to arrest this loss through our investment activities.

2. Nature-related Dependencies and Impacts, Risks and Opportunities

- All of our investee companies have dependencies on and impacts on natural capital in some way, and there are risks (such as the degradation of a particular type of natural capital a company relies on) associated with these dependencies and impacts. On the other hand, businesses that take advanced measures to reduce their dependence on natural capital and to prevent or mitigate negative impacts on it have opportunities related to natural capital. We evaluate the dependencies and impacts on natural capital and assess the associated risks and opportunities in our portfolio.

3. Governance

- We receive appropriate supervision, including submitting regular reports to the Board of Directors on the status of our efforts to tackle the loss of natural capital.

4. Our Approach

- We identify industry sectors on which we should focus in our portfolio, taking into account the scale of nature-related dependencies and impacts and the size of exposure. For these sectors, we identify material nature-related risks and opportunities.
- We support our investee companies in their measures to address the loss of natural capital through ESG integration, engagement, and proxy voting. In doing so, we seek to conserve and restore natural capital across society, based on our “Universal Owner” concept.
- We use appropriate metrics to monitor the performance of our measures.

5. Stakeholder Engagement

- Actively engage with diverse stakeholders, including market participants, NGOs, and public agencies.

6. Disclosures

- We seek enhanced disclosures on our climate change initiatives through an appropriate vehicle.

* For details on Our Policy on Climate and Our Policy on Nature, please refer to the following URL:
https://www.resona-am.co.jp/sustainability/esg_issues.html

Since climate and nature are closely related, we believe we should tackle these issues in an integrated manner. In addition, the importance of integrating climate- and nature-related financial disclosures is also mentioned in the TNFD recommendations, published by the Task Force on Nature-related Financial Disclosures (TNFD) in September 2023.
Based on these, since 2023, we have published the “Climate/Nature-related Financial Disclosure Report,” which provides an integrated disclosure of our efforts that we have made and plan to make hereafter to manage climate/nature-related risks and opportunities; this report represents the third edition. This report aligns with the frameworks based on the “Recommendations of the Task Force on Climate-related Financial Disclosures (TCFD Recommendations)” and the “Recommendations of the Taskforce on Nature-related Financial Disclosures (TNFD Recommendations),” as well as the Sustainability Disclosure Standards published by the Sustainability Standards Board of Japan (SSBJ) in March 2025. Each chapter of the report includes the following content:

1. General Requirements	In this chapter, we describe our approach to climate/nature-related risks and opportunities, as well as our dependencies and impacts on climate and nature, which form the basis of the disclosures presented herein. We also outline the scope of information disclosed in this report.
2. Governance	In this chapter, we describe an overview of our governance structure for material sustainability issues, including the Board of Directors’ oversight of initiative implementation and the roles of relevant internal organizations. Also, we describe our nature-related stakeholder engagement.
3. Strategy	In this chapter, we describe the details of climate/nature-related risks and opportunities that may affect our investees’ businesses, as well as their financial impacts, including the analysis methods used. In addition, we describe our status of current activities and future policies to manage these risks and opportunities, as well as the action plan for achieving a net-zero and nature-positive world (the so-called “Transition Plan”).
4. Risk and Impact Management	In this chapter, we describe the processes for identifying, assessing, prioritizing, and monitoring risks to assets in trust that may incur losses as climate/nature-related risks materialize.
5. Metrics and Targets	In this chapter, we describe key metrics and targets we use to assess and manage climate/nature-related risks and opportunities and the performance against the targets, etc.

In December 2023, we registered with the TNFD Adopters as an organization intending to make public disclosures aligned with the TNFD recommendations regularly and to improve them.

Column

Bio Garden Fujikura-Kiba Millennium Woods

The photographs on the cover and portraits on pages 1-2 of this report were taken at “Bio Garden Fujikura-Kiba Millennium Woods,” located next to our office. Bio Garden Fujikura-Kiba Millennium Woods is a bio garden (a garden that incorporates elements of a biotope) established in November 2010. This site has been certified as an OECM by the Ministry of the Environment, Japan, and as an EDO-MIDORI Registered Green Space by the Tokyo Metropolitan Government for its efforts to conserve biodiversity. The name of this site reflects the hope that, together with the local community in Kiba, Koto Ward, “the rich nature will continue for a thousand years to come.”
We chose the garden for the photo shoot because it makes us reflect on the importance of preserving natural capital and biodiversity and aligns with the theme of this report. We would like to express our gratitude to Fujikura Ltd. for their cooperation.
<Source> https://www.fujikura.co.jp/company/social-contribution/millennium-forest/forest-about/

General Requirements

To ensure consistency in our disclosures, we have organized our perspectives on the six general requirements recommended by the TNFD for disclosure, including those related to climate.

Application of materiality

As an asset management company, we promote medium- to long-term corporate value creation and sustainable growth of our investees and strive to increase the value of assets in trust. In this regard, we need to manage the potential financial impacts on the assets in trust as climate/nature-related risks and opportunities materialize. In light of this, this report discloses key information on the identification, assessment, and management of climate/nature-related risks and opportunities that may have financial impacts on the trust assets, as the baseline for our disclosures.

Additionally, based on the concept of the so-called "universal owner," we recognize that the medium- to long-term value of the whole assets in trust depends on the soundness of the environmental system that forms the basis for economic activities. Many market participants have recently pointed out that the cumulative impacts of individual companies on climate and nature may, over the medium- to long-term, undermine the health of environmental systems, resulting in system-level risks. We recognize the importance of managing such impacts from the perspective of addressing system-level risks. In light of this, and based on the concept of double materiality, this report includes information on identifying, assessing, and managing impacts on climate and nature arising from our investees' activities.

Scope of disclosures

Typically, climate/nature-related risks and opportunities arise from an organization's direct operations, upstream value chain (e.g., suppliers), and downstream value chain (e.g., purchasers of products for business enterprises or investees and borrowers for financial institutions). Given the characteristics of our business, we recognize that climate/nature-related risks and opportunities associated with our investment activities in the downstream value chain are highly material, while others (including those related to our direct operations) are considered minor. In light of this, this report mainly discloses climate/nature-related risks and opportunities (including underlying dependencies and impacts on nature) associated with our investment activities. However, some of the disclosures regarding governance, risk and impact management, and metrics and targets include information on climate/nature-related risks and opportunities associated with our direct operations.

Location of nature-related issues

This report analyzes nature-related risks and opportunities at the industrial-sector level for the investee companies in which we invest worldwide. However, given the limitations in available data and analytical methodologies, we are not currently conducting analyses of nature-related risks and opportunities in regions associated with the direct operations or value chains of our individual investees. Nevertheless, we are closely monitoring developments in datasets and pilot analysis initiatives and exploring the potential for these analyses to be used in our engagement activities.

Integration with other sustainability-related disclosures

Since climate and nature issues are closely related, we recognize that our efforts in these areas should be conducted in an integrated manner. Based on this recognition and in accordance with the TNFD recommendations, which emphasize the importance of integrating climate/nature-related financial disclosures, this report, titled "Climate/Nature-related Financial Disclosure Report," provides integrated disclosures.
Our overall sustainability efforts are disclosed in our Sustainability Report.

* Our Sustainability Report is available on:
https://www.resona-am.co.jp/sustainability/

Time horizons considered

In this report, we basically assume the following time horizons: short term—several years from the present; medium term—a decade from the present; and long term—approximately 2050 or beyond. However, if the referenced documents use a different time horizon, the report conforms to that.

Engagements with indigenous peoples and local communities

As a member of the UN Global Compact, the Resona Group, including us, supports international human rights norms, including the "UN Guiding Principles on Business and Human Rights," and established the "Resona Group Human Rights Policy" in 2013 in compliance with these international norms. In addition, as an investment management company, it is particularly necessary for us to manage adverse human rights impacts arising from our investees' business activities and to reduce the risk that assets in trust suffer losses from these impacts. Accordingly, in 2023, we established the "Our Policy on Human Rights Issues Related to Investment Management." These policies stipulate that, under the supervision of the Board of Directors, we conduct human rights due diligence, maintain grievance mechanisms, and seek to enhance our efforts to respect human rights through stakeholder engagements. We promote our efforts to respect human rights in accordance with these two policies when assessing and responding to dependence on and impacts on nature, as well as risks and opportunities related to nature.

* For details of the Resona Group Human Rights Policy, please refer to the following URL:
https://www.resona-gr.co.jp/holdings/sustainability/sdgs/human_rights/commitment.html

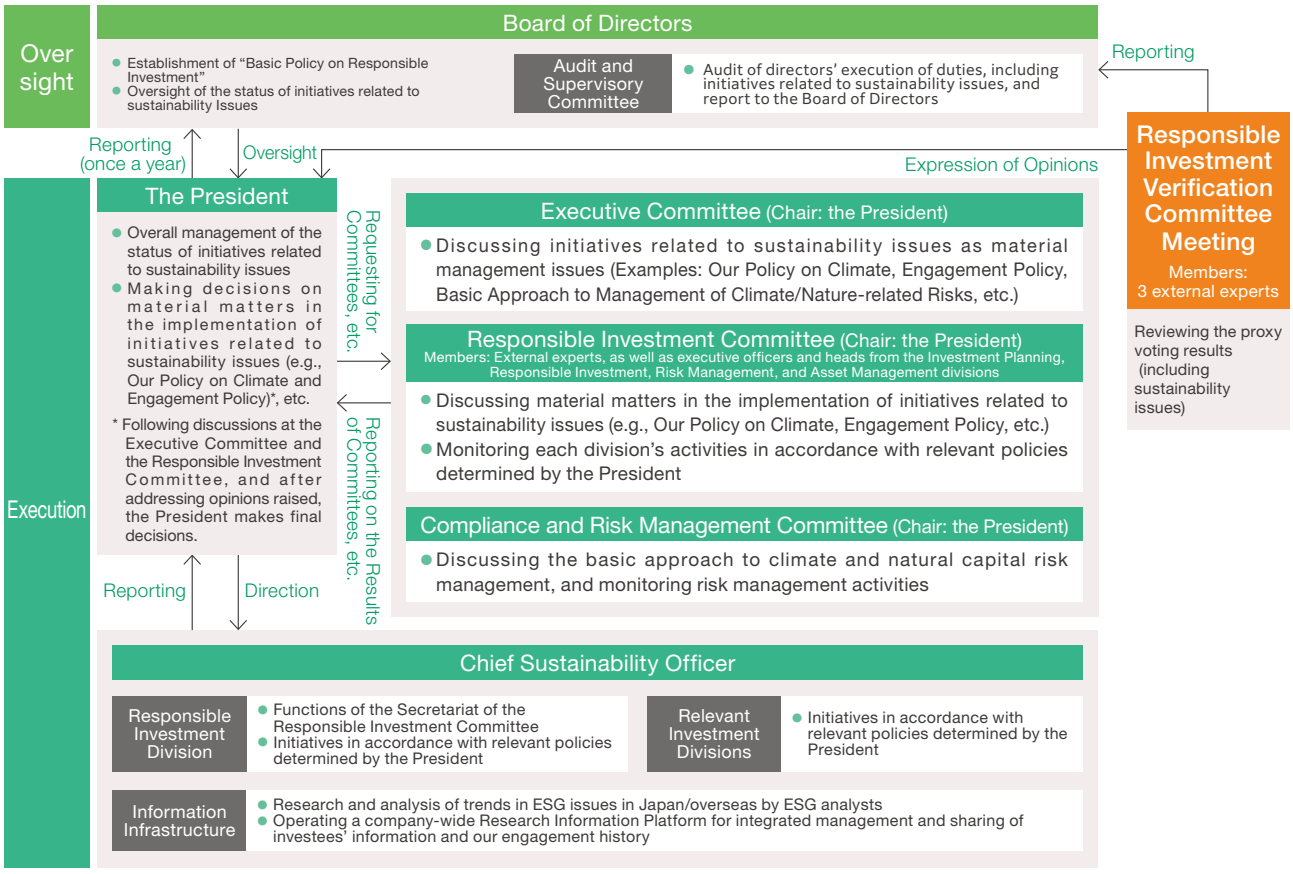
* For details of "Our Policy on Human Rights Issues Related to Investment Management," please refer to the following URL:
https://www.resona-am.co.jp/sustainability/esg_issues.html#03

We accumulate advanced knowledge by actively exchanging ideas with various stakeholders, leveraging the network we have cultivated as a pioneer in responsible investment. These stakeholders include not only investees and other institutional investors, but also NGOs/NPOs, academics, public institutions, and related organizations.
We exchange views with NGOs/NPOs every few months and discuss topics such as our in-house engagement on sustainable palm oil procurement and the latest trends in sustainability. We apply the insights from these discussions to enhance the effectiveness and efficiency of our engagement activities with investees.
Given the limitations in available data and analytical methodologies, we are not currently conducting analyses of nature-related risks and opportunities in regions associated with the direct operations or value chains of our individual investees. Consequently, we consider that, at present, it is difficult to exchange views with indigenous peoples or local communities, but we believe that the above exchange of views with NGOs/NPOs will complement it.

1 Overview of Our Governance System on Sustainability Issues

We have established a strong governance system through the clear separation of management, execution, and supervision, as well as the participation of independent outside directors. The following figure provides an overview of our governance system for sustainability issues, including climate change and natural capital.

Our governance system on sustainability issues



Based on "Our Policy on Climate" and "Our Policy on Nature," sustainability-related risks and opportunities and the status of our efforts to address them shall be reported at least once a year to the Board of Directors, half of whose members are independent directors. This scheme ensures appropriate oversight of our initiatives. The agenda items related to climate change and natural capital discussed at the board meeting for the past year are as follows:

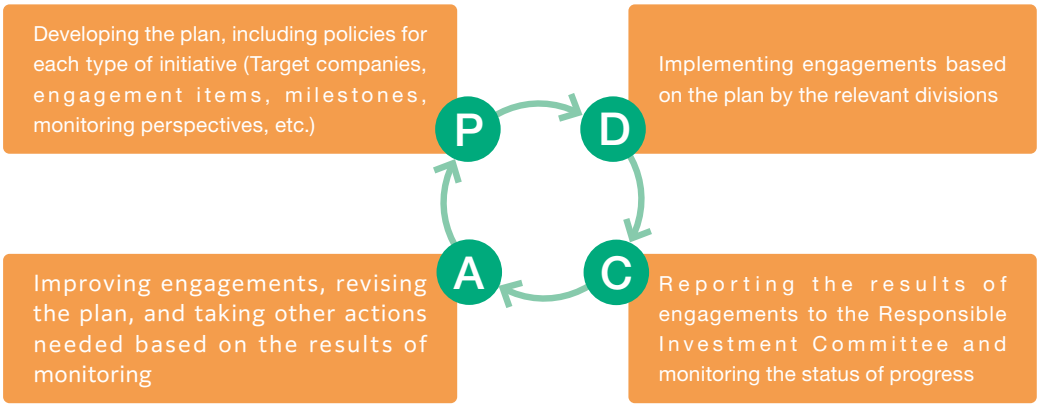
Agenda items related to climate change and natural capital discussed at the Board of Directors

- Status of initiatives and next steps based on "Our Policy on Climate" and "Our Policy on Nature"
- Disclosures based on TCFD/TNFD recommendations and next steps
- Implementation of monitoring related to the identification, assessment, and management of climate/nature-related risks
- Verification of voting results (shareholder proposal related to climate change, etc.)
- Continued improvement and enhancement of our own in-house corporate ESG rating framework, named Resona ESG Ratings

To verify the appropriateness of concrete initiatives related to responsible investment (including initiatives related to sustainability issues) and striving to devise and improve them as necessary, we have established the Responsible Investment Committee, chaired by the President and composed of an external expert (Professor Tsuyoshi Mizuguchi, who is the President of Takasaki City University of Economics and Chairperson of the "Expert Panel on Sustainable Finance") and executive officers and heads from relevant divisions. This committee meets every 1-2 months to discuss material issues in the execution of sustainability initiatives, as well as indicators and targets for assessing and managing climate/nature-related risks and opportunities, and to monitor progress toward the set targets. Also, we discuss sustainability initiatives as material management priorities at our monthly Management Committee meetings. Material matters related to the implementation of sustainability initiatives are actively and carefully discussed at these committees, and decisions are made by the President after addressing opinions raised. In addition, the contents discussed at these committees are reported to the Board of Directors and discussed there. In accordance with the sustainability-related policies and action plans established in this manner, the Responsible Investment Division and each relevant investment division implement sustainability initiatives (Stewardship activities such as engagement, proxy voting, and ESG integration). In fiscal 2023, the Head Director of the Responsible Investment Division was appointed as the Chief Sustainability Officer (CSuO) and is actively leading sustainability initiatives across divisions. Our analysts responsible for ESG conduct research and analysis of sustainability trends in Japan and overseas, and construct and operate a company-wide Research Information Platform that serves as the information infrastructure supporting these activities.

We have established a PDCA cycle for these initiatives by the Responsible Investment Division and each relevant investment division. The progress of these efforts is monitored by the Responsible Investment Committee and other meetings, and based on the results, the related policies and action plans for sustainability issues are revised. In particular, with regard to engagement, which we place importance on as a response to climate/nature-related risks and opportunities, we develop the "Engagement Plan" annually and strive to enhance the effectiveness of our initiatives through the PDCA cycle based on this plan (see the figure below). As described in the "Metrics and Targets" section of this report, with regard to engagement activities, which play a central role in the management of climate/ nature-related risks and opportunities, we set "Metrics related to changes in the behavior of investee companies" as milestones, and the progress is managed through this PDCA cycle.

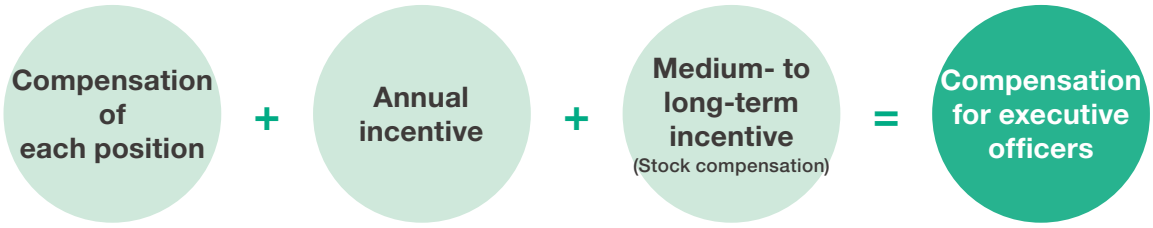
● PDCA cycle based on the "Engagement Plan"



Given our role as an asset manager, we place particular importance on managing the risk of losses in assets in trust as climate/nature-related risks materialize; this includes managing system-level risks that may arise from the accumulation of investees' negative impacts on climate and nature. Consequently, we discuss risk management, including climate/nature-related risks, at the Compliance and Risk Management Committee and monitor risk management activities (please refer to page 44 for details).

As shown in the “Our governance system on sustainability issues” chart on the previous page, Our Proxy Voting Guidelines and the proxy voting results (including those related to sustainability issues) are verified from a third-party perspective at the Responsible Investment Verification Committee Meeting, which consists of three external experts. Furthermore, to accelerate sustainability initiatives, we have incorporated ESG indicators into our executive compensation system. ESG indicators are reflected in medium- to long-term incentives (performance-linked stock compensation) in the compensation structure for executive officers.

● Compensation for executive officers



Name	Method of calculation
Compensation of each position	Determined based on the responsibilities of each position.
Annual incentive	Calculated based on personal and company evaluations.
Medium- to long-term incentive (Stock compensation)	The payment rate is calculated by adding and subtracting* according to the annual rate of change in ESG indicators from the figure calculated based on the status of plan achievement. *Add or subtract within a range of 10% depending on the rate of change in ESG scores by the leading ESG rating agencies (MSCI, FTSE)

2 Human Rights Policy and Stakeholder Engagements

Human Rights Policy

As a member of the UN Global Compact, the Resona Group, including us, supports international human rights norms, including the “UN Guiding Principles on Business and Human Rights,” and established the “Resona Group Human Rights Policy” in 2013 in compliance with these international norms. In addition, as an investment management company, it is particularly necessary for us to manage adverse human rights impacts arising from our investees' business activities and to reduce the risk that assets in trust suffer losses from these impacts. Accordingly, in 2023, we established the “Our Policy on Human Rights Issues related to Investment Management.” We promote our efforts to respect human rights in accordance with these two policies when we assess dependencies and impacts on nature, as well as nature-related risks and opportunities, and respond to them accordingly.
These policies stipulate that, under the supervision of the Board of Directors, we conduct human rights due diligence, maintain grievance mechanisms, and seek to enhance our efforts to respect human rights through stakeholder engagements. An overview of our efforts to address human rights issues in line with these policies is presented on pages 37-38.

* For details of the Resona Group Human Rights Policy, please refer to the following URL:
https://www.resona-gr.co.jp/holdings/sustainability/sdgs/human_rights/commitment.html

* For details of the “Our Policy on Human Rights Issues related to Investment Management,” please refer to the following URL:
https://www.resona-am.co.jp/sustainability/esg_issues.html#03

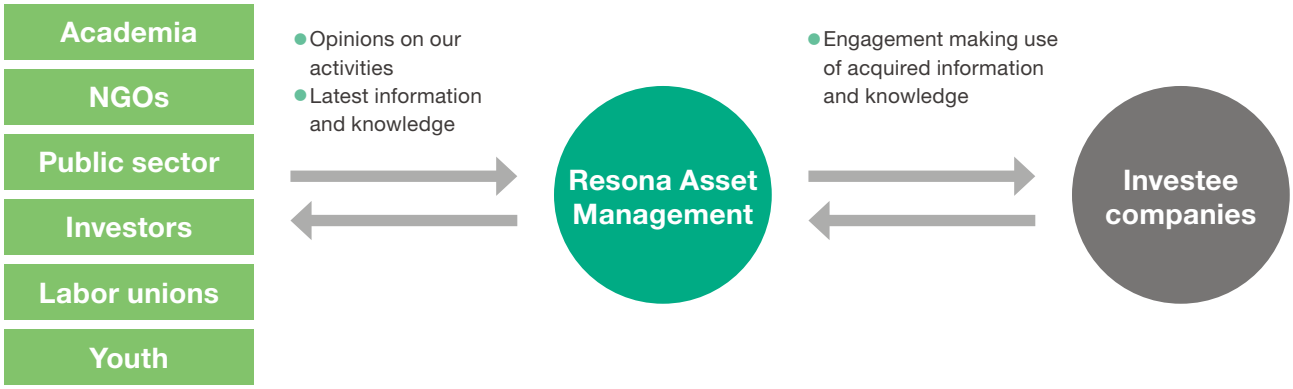
Engagements with indigenous peoples and local communities

Given the limitations in available data and analytical methodologies, we are not currently conducting analyses of nature-related risks and opportunities in regions associated with the direct operations or value chains of our individual investees. Consequently, we consider that, at present, it is difficult to exchange views with indigenous peoples or local communities. To complement this, however, we hold discussions with NGOs and NPOs approximately once every two to three months. We have discussed topics such as our in-house engagement on sustainable palm oil procurement and the latest trends in sustainability issues in our meeting with them, and we have been enhancing our engagements with investees and our other responsible investment activities, reflecting the feedback we receive in the discussions.

Nature-related topics discussed at the meetings with NGOs and NPOs

- Sustainable procurement (palm oil, paper and wood, cocoa beans, and soybeans)
- Rights violations of indigenous peoples and impacts on ecosystems associated with woody biomass power generation and deforestation
- Climate change issues for automakers
- TNFD implementation in the financial sector
- Responsible water use management and biodiversity impacts
- Investee companies' compliance with TNFD and the EU Deforestation Regulation (EUDR)

In addition, we actively engage with various stakeholders, including the following, leveraging the network we have cultivated as a pioneer in responsible investment. We apply the advanced information and insights gained through this to enhance the effectiveness and efficiency of our integrated initiatives, including engagements to address climate change, loss of natural capital, and human rights issues.



Engagements with the public sector

In "Our Policy on Nature," it is stipulated that we engage with various stakeholders, including public institutions, to contribute to tackling the loss of natural capital/biodiversity.
For example, since January 2023, we have participated as a committee member in the following review committees on natural capital sponsored by public institutions.

- The New Biodiversity Strategy Review Committee of the Ministry of Agriculture, Forestry and Fisheries (Secretariat: the Ministry of Agriculture, Forestry and Fisheries, Japan)
- Study Group on Revision of Private Sector Engagement Guidelines for Biodiversity (Secretariat: the Ministry of the Environment, Japan)
- FY2022 Study Group on Environmental Due Diligence (Secretariat: the Ministry of the Environment, Japan)
- Study Group on Development of a Corporate Disclosure Scheme on Material Cycles (Secretariat: the Ministry of the Environment)
- Core members meeting on nature-positive considerations in finance (Secretariat: the Ministry of the Environment)

Strategy

Climate/nature-related risks and opportunities do not appear to have significantly affected the performance of our individual investees to date, but may cause significant fluctuations in their performance. In addition, negative impacts on climate and nature from individual business activities may collectively damage the soundness of the environmental system over the medium- to long-term; the resulting system-level risks may adversely affect the overall performance of our investees. This means that climate/nature-related risks and opportunities may have a significant impact on the medium- to long-term value of the entire assets in trust we manage. It is important for us to assist our investees in achieving sustainable growth by taking advantage of climate/nature-related opportunities, as well as avoiding and mitigating losses as climate/nature-related risks materialize, including system-level risks.
"Our Policy on Climate" and "Our Policy on Nature" state that we will contribute to tackling climate/nature-related issues in collaboration with our investees through the following strategies:

1. Conducting our own assessments of climate/nature-related risks and opportunities relevant to our investees.
2. Conducting stewardship activities, such as ESG integration, engagements (including collaborative engagements), and proxy voting, as well as related financial products, as approaches to address the issues.
3. Using appropriate metrics to monitor the performance of our activities.

Analyzing Climate/Nature-related Risks and Opportunities

We have conducted the following analysis to further enhance our strategies effectively and efficiently to manage climate/nature-related risks and opportunities in accordance with the above policies.

Climate	We have defined the scope of industry sectors in which we should particularly focus our efforts first. Then we have conducted a scenario analysis to identify material climate-related risks and opportunities and to assess their financial effects for each industry sector.
Nature	We have defined the scope of industry sectors on which we should focus our efforts and have identified material nature-related risks and opportunities for each sector using available public information and analysis tools. As noted in the TNFD recommendations, we are aware of the limitations of available methodologies and data.

Based on the results of the above analysis, we have considered future response policies, including ways to improve the aforementioned strategies and decision-making processes for managing significant climate/nature-related risks and opportunities.

Additionally, in "Our Policy on Climate" and "Our Policy on Nature," we have committed to the following strategic objectives: "We support the objectives of the Paris Agreement and aim to achieve net zero GHG emissions across scope 1, 2 and scope 3 category 15 (our financed emissions) by 2050, and contribute to the global efforts to combat climate change through our investment activities." "We support the 2050 Vision and the 2030 mission which the Kunming-Montreal Global Biodiversity Framework set out, and contribute to the global efforts to arrest the loss of natural capital and biodiversity through our investment activities." Taking these commitments into account, we have organized a so-called "transition plan" to reduce negative impacts on climate and nature and achieve these strategic objectives, referencing internationally recognized guidance and frameworks widely accepted globally.

1 Analysis of Climate-related Risks and Opportunities

(1) Defining the scope of industry sectors for analysis

We are an institutional investor that manages large-scale assets and invests in companies in a wide range of industry sectors. We should not treat all of the industry sectors uniformly to address climate-related risks and opportunities effectively. For this reason, we have identified industry sectors on which we should focus our efforts particularly, and have analyzed these sectors deeply, referring to “Practical guide for Scenario Analysis in line with guidelines such as the TCFD recommendations (For the Banking Sector) 2nd edition” (the Ministry of the Environment, Japan). The scope is defined in consideration of (i) the size of our exposure to the industry sector, (ii) a general assessment of the financial effects that climate-related risks and opportunities (physical risks, transition risks, and transition opportunities) have on the industry sector, and (iii) the magnitude of the impact which the industry sector has on climate (in other words, its Scope 1, 2, and 3 emissions). The resulting scope of industry sectors and the reasons are as follows.

Identified industry sectors	Reason for identification
Chemicals	Continuously high exposure. In addition, the sector is generally assumed to be affected financially by physical risks, transition risks, and transition opportunities.
Automobiles	Continuously high exposure. In addition, the sector is generally assumed to be affected financially by transition opportunities.
Food Products	Continuously high exposure. In addition, the sector is generally assumed to be affected financially by physical risks.
Real Estate Management & Development	Continuously high exposure. In addition, the sector is generally assumed to be affected financially by physical risks.
Electric Utilities	Their direct operations have material impacts on the climate.
Metals and Mining	Their direct operations have material impacts on the climate.
Oil, Gas, and Consumable Fuels	Their downstream value chain has material impacts on climate.

* 1 A general assessment of the financial impacts that climate-related risks and opportunities (physical risks, transition risks, and transition opportunities) have on each industry sector is based on the following literature.
  · FY2021 Analysis of Climate Change-Related Risks and Opportunities in the GPIF Portfolio (GPIF)
  · SASB Climate Risk Technical Bulletin (SASB)
  · Advancing TCFD Guidance On Physical Climate Risks and Opportunities (EBRD) etc.
  · Materiality Finder (SASB)
  · The Transition Risk-O-Meter (2 Degrees Investment Initiative)

*2 Emissions related to investments in the above seven sectors account for approximately 60% of our Scope 3 Category 15 emissions.

(2) Analyzing Climate-related Risks and Opportunities

(1) We have conducted scenario analysis to identify material climate-related risks and opportunities and to assess the financial impacts on each industry sector listed in (1) above. We estimate the financial impacts using the revenues and asset sizes of representative companies in each industry sector; therefore, our analysis is expected to be less accurate than that conducted by each investee on its own business. Yet this analysis could still be used in engagements with investees better to understand their strategies for climate-related risks and opportunities. The outline of the scenario analysis methodology and the results of the analysis of climate-related risks and opportunities are as follows.

Scenario Analysis Methodology

We conduct scenario analysis in the following analysis flow, with reference to relevant guidance such as “Guidance on Scenario Analysis for Non-Financial Companies” (TCFD) and “Practical guide for Scenario Analysis in line with the TCFD recommendations (For the Banking Sector) 2nd edition”(the Ministry of the Environment, Japan).

❶Identifying Climate-related Risks and Opportunities to Focus on

We have identified commonly recognized climate-related risks and opportunities by compiling climate-related financial disclosures of global representative companies in each industry sector.

❷Setting scenarios

We have set up a group of external environments (natural environment, economic society, suppliers, consumers, industry, government, etc.) surrounding each industry sector for the “1.5℃ scenario (a world where climate change has been tackled and the temperature rise has been limited to 1.5℃ or lower),” and the “above 2℃ scenario (a world where climate change efforts have been slow and the temperature has risen above 2℃).”
These scenarios are based on those published by the Network for Greening the Financial System (NGFS). This is because the NGFS scenarios include a range of economic and financial parameters, making them suitable for evaluating the financial impacts on our managed assets. The parameters for the analysis are set with reference to information published by NGFS, the International Energy Agency (IEA), the United Nations, and other organizations. Key parameters considered important for each industrial sector appear in the analysis results as well.

Scenario used for the analysis	NGFS scenarios used as a basis					
	Category	Scenario	Policy intensity	Policy implementation	Technological innovation	Carbon removal
1.5℃ Scenario	Orderly	Net Zero 2050 (Compliance with the Paris Agreement)	1.4℃	Swift and smooth	Fast	Medium to high utilization
	Disorderly	Divergent Net Zero	1.6℃	Swift but varies across sectors	Fast	Low to medium utilization
2℃+ Scenario	Hot House World	Nationally Determined Contributions (NDCs)	2.6℃	Policies committed as of March 2022 are implemented.	Slow	Low to medium utilization

Source: Created by our company based on “NGFS Scenarios for central banks and supervisors, Third Edition”

❸Financial Impact Assessment

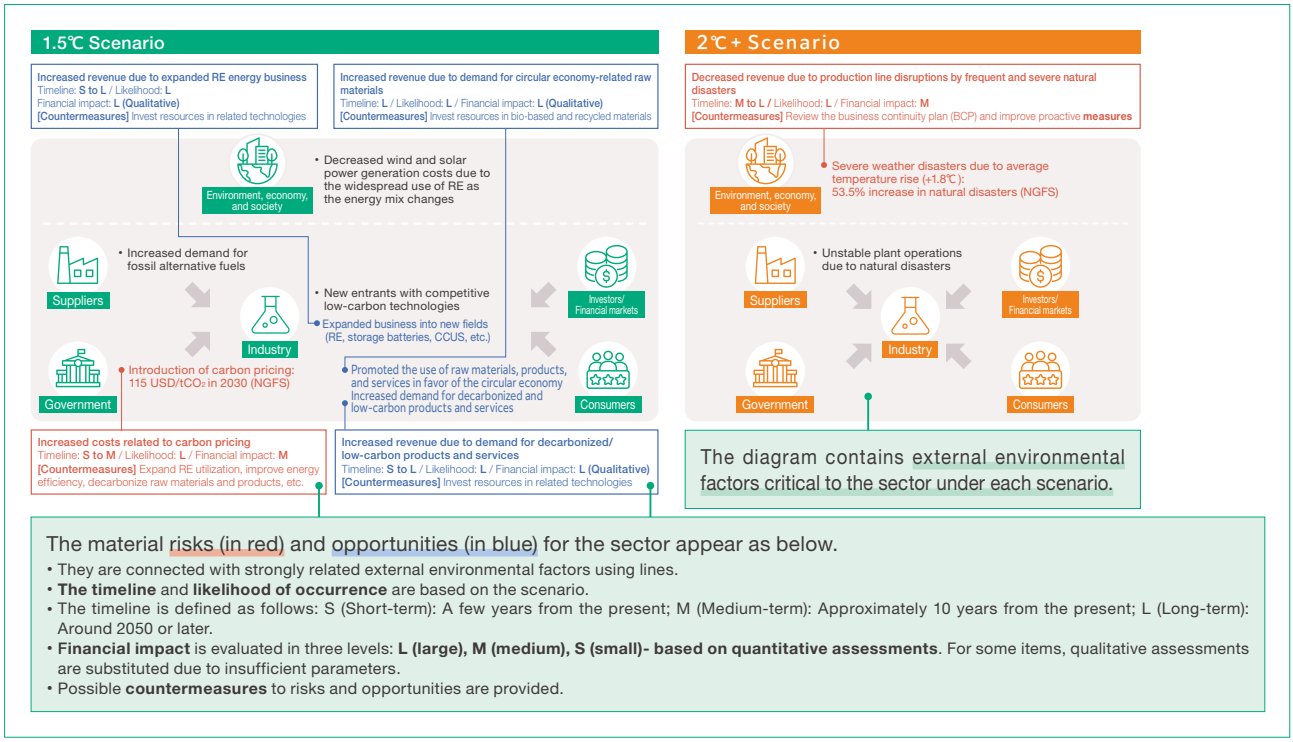
We have assessed how the climate-related risks and opportunities identified in (i) would affect companies’ financial performance under each scenario set in (ii), and quantified the financial impact using the parameters outlined in (ii). In assessing financial impacts, we have taken into account factors such as the scale of major investee companies in our portfolio within each sector.

* For some items, only qualitative assessment is conducted due to the lack of parameters for analysis.

* This analysis is based on the latest information available as of September 2023. While the 5th edition of the NGFS scenarios was published in November 2024, we have not changed our analytical methodology at this time to maintain the continuity of our strategy. We plan to update the analytical methodology at an appropriate frequency while closely monitoring updates to the scenarios and other relevant developments.

■Analyzing Material Climate-related Risks and Opportunities

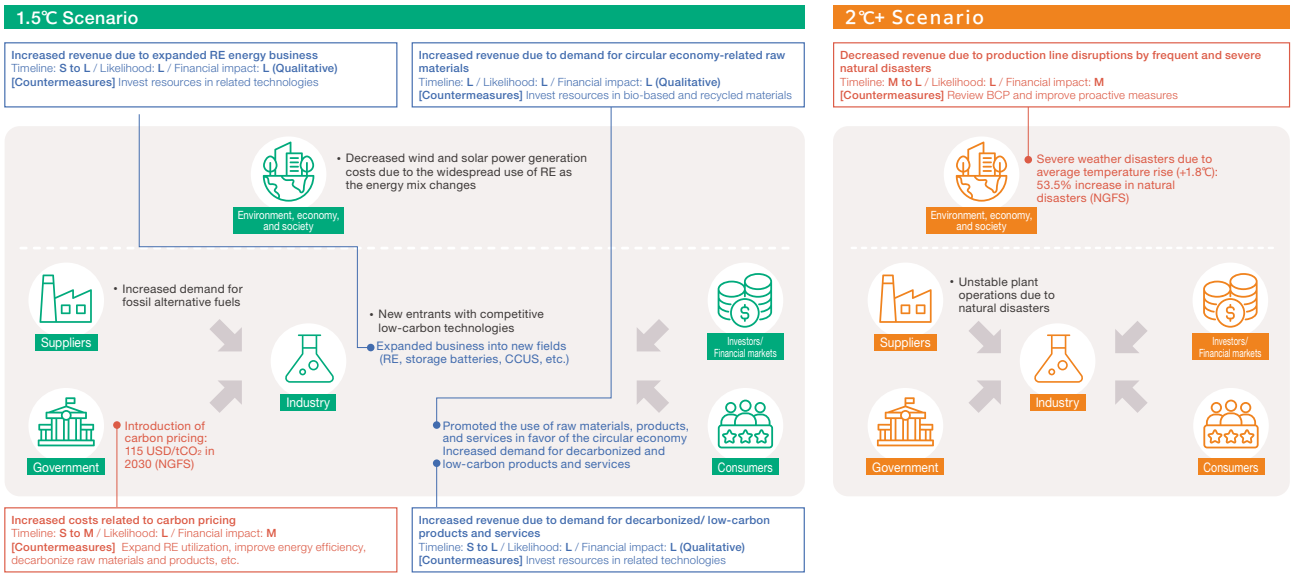
The analysis results for each industrial sector are presented on pages 15–18. The interpretation of the analysis results is as follows.



1 Chemical Sector

- Targeted in engagements with companies in high-emitting sectors (Page 32)
- Sectors targeted for engagement on avoided emissions (Page 32)

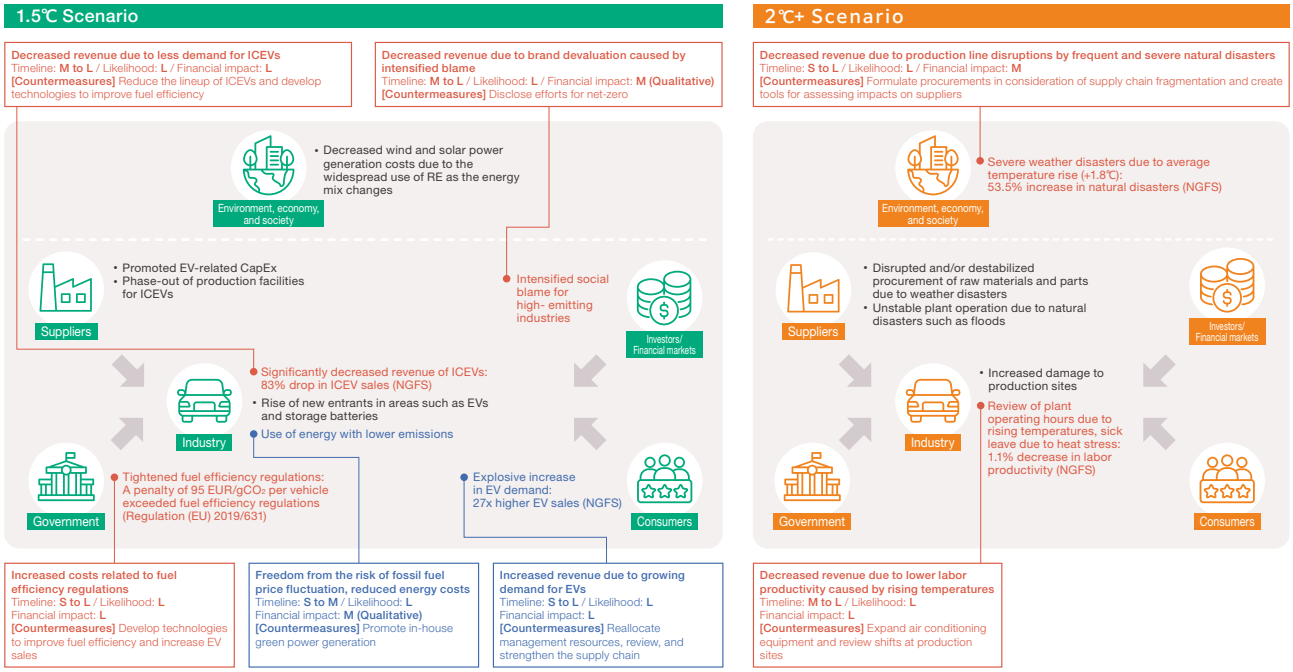
In the 1.5℃ scenario, as many companies heighten their focus on reducing GHG emissions, there will be greater demand for decarbonized/low-carbon businesses and products. As this is an opportunity for the chemical sector, the companies should prepare for it: for example, by making appropriate resource investments to utilize their decarbonization-related technologies. As an indicator of such opportunities, avoided emissions may prove to be useful.
On the other hand, because of their high GHG emissions, delays in decarbonization will not only lead to lost opportunities but also to transition risks related to the introduction of carbon pricing; the transition to net zero should therefore be promoted across the entire company.
In the 2℃+ scenario, companies should review their BCPs for production line interruptions caused by natural disasters.



2 Automobile Sector

- The sector represented by companies for which we serve as the lead investor in Climate Action 100+ (Page 32)

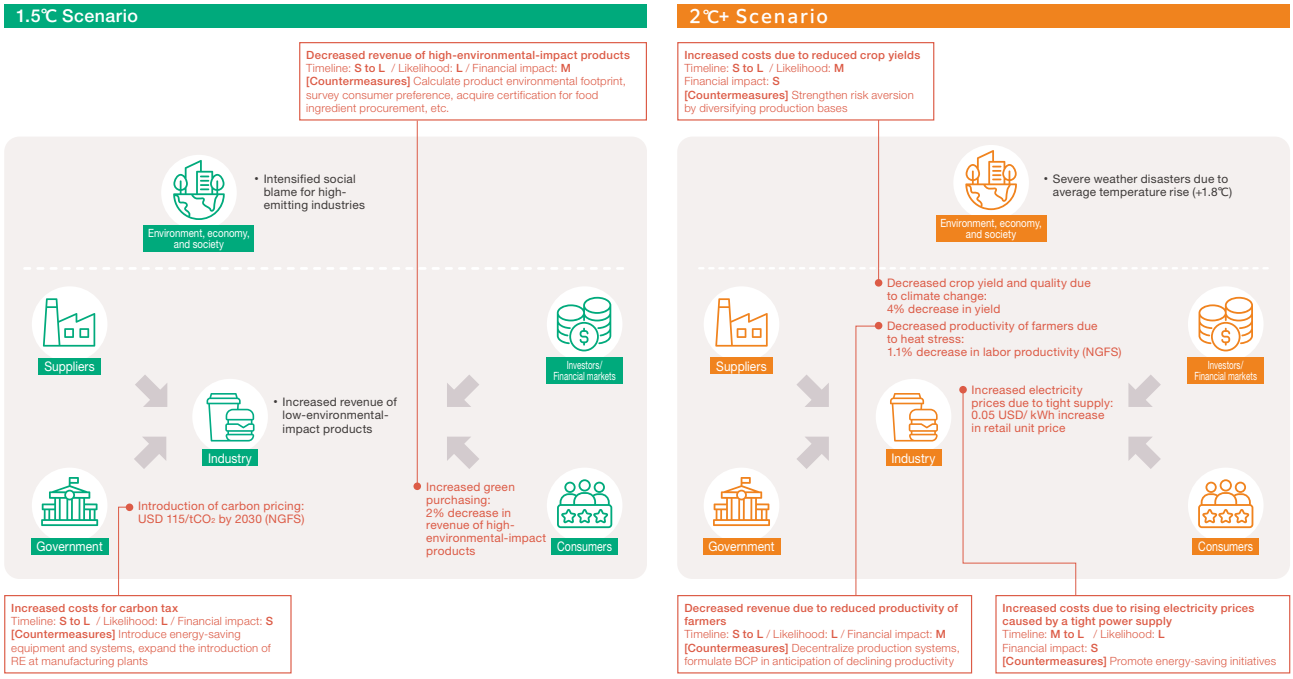
In the 1.5℃ scenario, while there are significant risks with the transition from ICEVs (internal combustion engine vehicles) to EVs, there are also significant opportunities from early adoption of EVs. To address these risks and opportunities, the companies should systematically develop technology and review their resource allocation and supply chains. In the 2℃+ scenario, they should address the reduction in labor productivity at manufacturing sites due to rising temperatures.



3 Food Product Sector

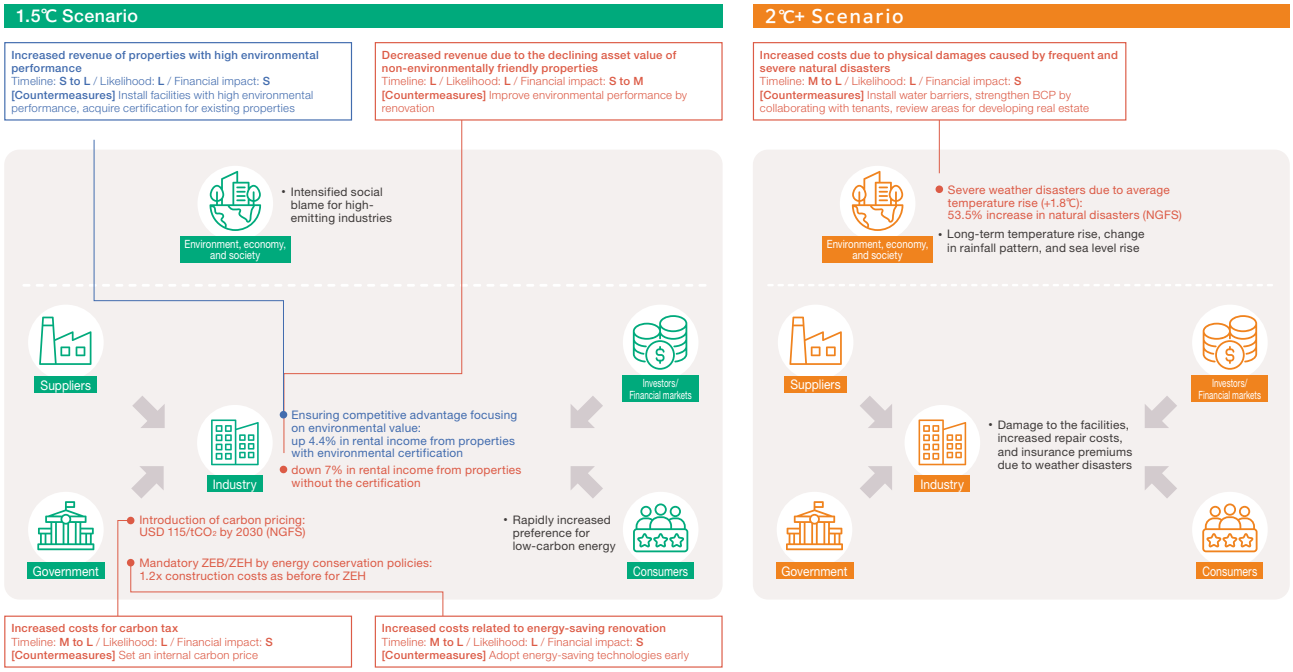
• The key sector for engagements on sustainable palm oil sourcing (Page 32)

This sector is considered to be significantly vulnerable to physical risks. In particular, in the 2℃+ scenario, not only will crop yields decline, but farmers' productivity may also suffer due to rising temperatures. In response, the companies should better manage and decentralize the supply chain and establish product systems that anticipate reducing productivity. Under the 1.5℃ scenario, there is a risk of decreased demand for high-environmental-impact products. Supply chain management could be a countermeasure to this risk as well.



4 Real Estate Management & Development Sector

In the 2℃+ scenario, property damage from natural disasters can pose a physical risk. While the scale of the financial impact varies by business location, businesses should strengthen resilience and review their locations. In the 1.5℃ scenario, there will be transition risks and opportunities related to eco-friendly measures such as ZEB (Net Zero Energy Building) and ZEH (Net Zero Energy House). Although implementing environmental measures for properties incurs temporary additional costs, they also increase asset value; therefore, early, planned responses are desirable.

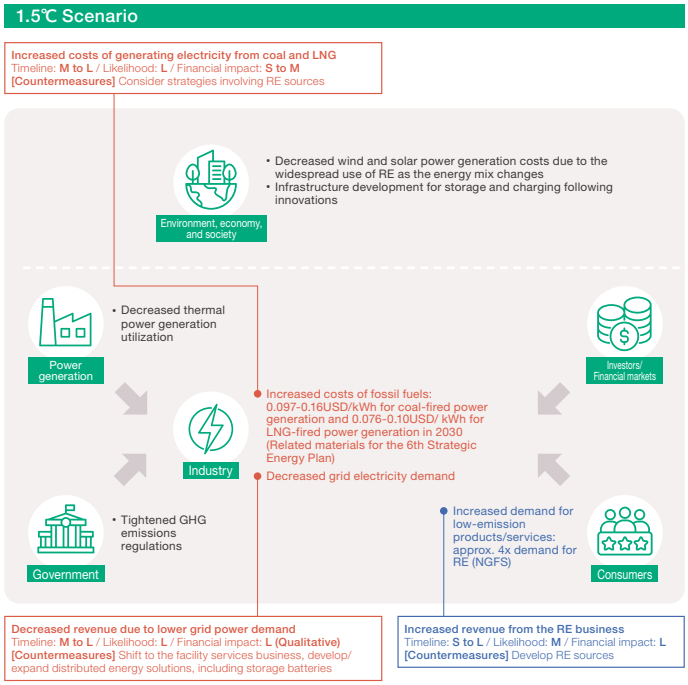


5 Electric Utility Sector

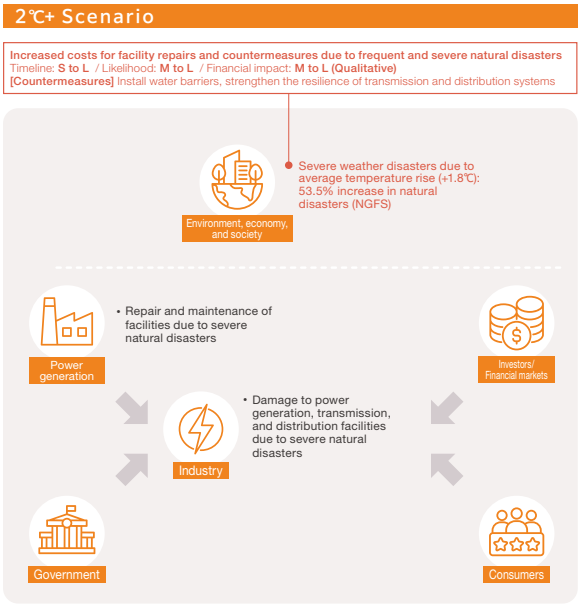
• Targeted in engagements with companies in high-emitting sectors (Page 32)

In the 1.5℃ scenario, increased costs of thermal power generation due to tighter regulations and reduced demand for grid power pose transition risks. On the other hand, there will also be an opportunity for greater demand for RE. As countermeasures, the companies should actively transition to net zero by utilizing RE and consider expanding into the facility service business. In the 2℃+ scenario, damage to power generation facilities from natural disasters will emerge as a physical risk; companies should strengthen resilience against it.

1.5℃ Scenario



2℃+ Scenario

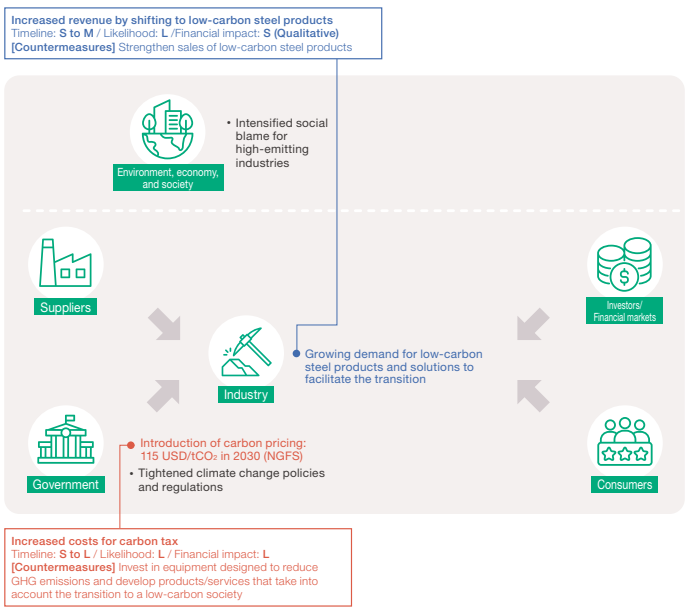


6 Metals and Mining Sector

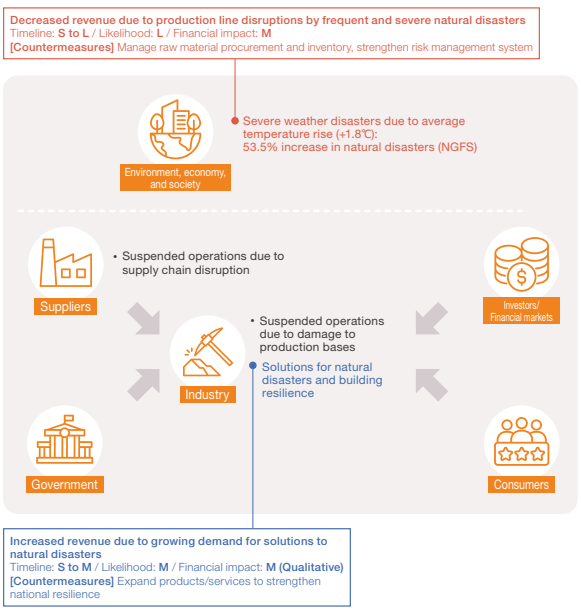
• Targeted in engagements with companies in high-emitting sectors (Page 32)

Due to high GHG emissions during the manufacturing process, the transition risk associated with carbon pricing is considered material in the 1.5℃ scenario; companies should actively promote the transition to net zero through technological development. On the other hand, with reduced GHG emissions across supply chains, there would be an opportunity to increase demand for low-carbon steel products. In the 2℃+ scenario, companies should strengthen resilience against production line disruptions caused by natural disasters.

1.5℃ Scenario

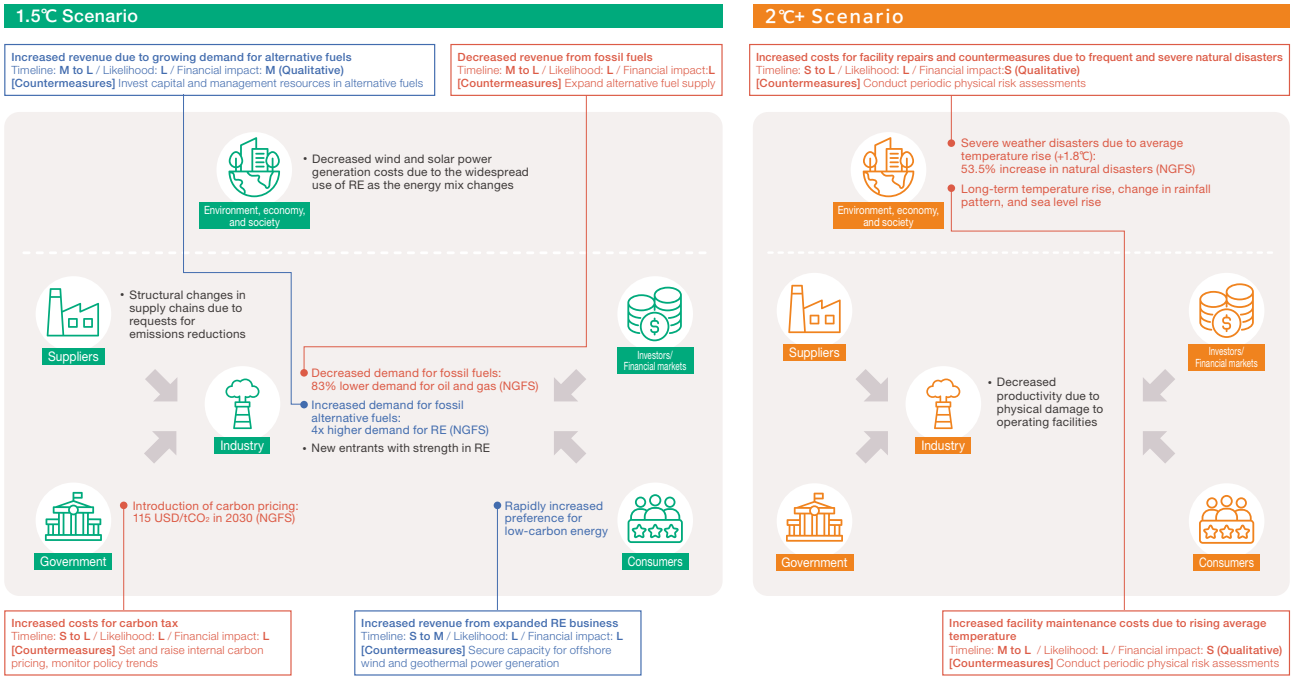


2℃+ Scenario



7 Oil, Gas, and Consumable Fuels Sector

In the 1.5℃ scenario, the transition risks arising from reduced demand for fossil fuels and the introduction of carbon pricing would be significant; the companies should actively promote their transition to net zero by shifting to alternative fuels. In the 2℃+ scenario, countermeasures to mitigate damage to infrastructure from natural disasters are considered essential.



Based on an analysis of the industrial sectors we have identified as requiring our focused attention, conducted under both a 1.5℃ scenario and a 2℃+ scenario, it has become clear that while the short-term financial impact is expected to be generally limited, significant financial impacts are anticipated in the medium- to long-term.

The future response policies based on these analysis results are presented on pages 31–34.

2 Analysis of Nature-related Risks and Opportunities

(1) Defining the scope of industry sectors for analysis

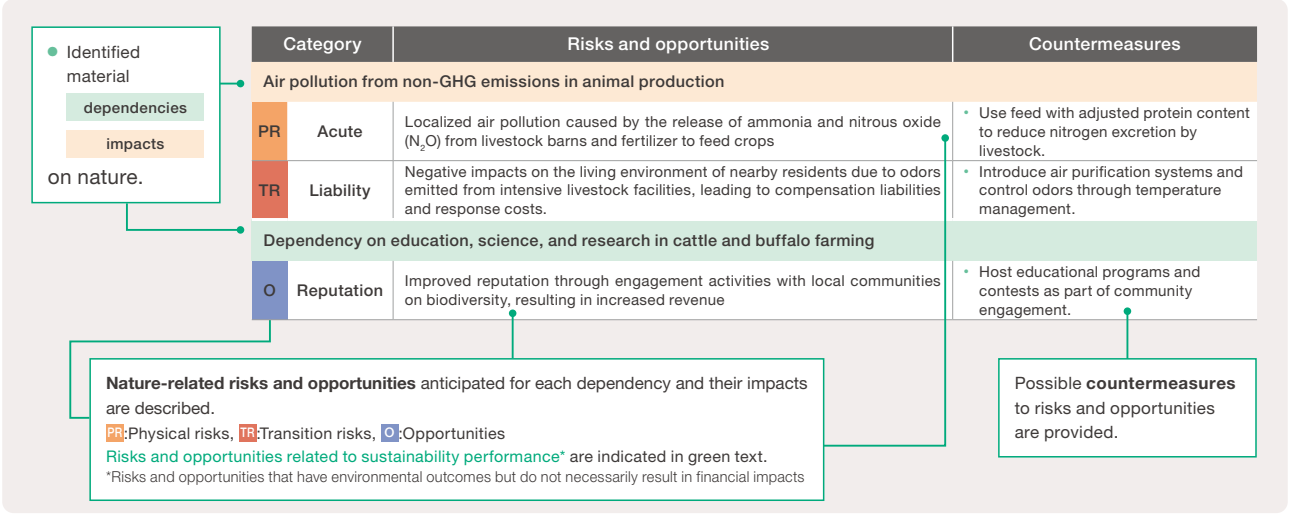
We are an institutional investor that manages large-scale assets and invests in companies in a wide range of industry sectors. We should not treat all of the industry sectors uniformly to address climate-related risks and opportunities effectively. For this reason, we have identified industry sectors on which we should focus our efforts in particular and have analyzed these sectors in depth, based on the LEAP approach (an integrated approach for the assessment and management of nature-related issues) presented in the TNFD recommendations. The scope is defined in consideration of (i) the size of our exposure to the industry sector, (ii) the magnitude of the sector's dependency on nature, and (iii) the magnitude of the impacts which the sector has on nature. We use ENCORE, the analytical tool recommended by TNFD, to evaluate the extent of dependency and impact on nature for each industrial sector.
The resulting scope of industry sectors and the reasons are as follows.

Identified industry sectors	Reason for identification
Food Products	Continuously high exposure. In addition, the sector has material dependencies on and impacts on nature.
Chemicals	Continuously high exposure. In addition, the sector has material dependencies on and impacts on nature.
Household durables	Continuously high exposure. In addition, the sector has material dependencies on and impacts on nature.
Pharmaceuticals	Continuously high exposure. In addition, the sector has material dependencies on and impacts on nature.
Paper Products and Forest Products	The sector has material impacts on nature.
Metals and Mining	The sector has material impacts on nature.
Independent Power Producers and Energy Retailers	The sector has material impacts on nature.

* Note: This analysis is based on the latest information as of September 2024, following the major ENCORE update in July 2024.
* Note: As highlighted in the TNFD recommendations, we recognize the limitations of available data and frameworks at the time of the analysis.

(2) Analysis Results on Nature-related Risks and Opportunities

For each industry sector listed in (1) above, we have specified the details of dependencies and impacts on nature by using ENCORE and other tools. Based on the analysis, we have also identified potential nature-related risks and opportunities, along with corresponding countermeasures. The results are shown on pages 21 to 30. The interpretation of the analysis results is as follows.



Classification of Dependencies and Impacts on Nature

Based on ENCORE, we classify dependencies and impacts on nature as follows.

Impacts		Overview
Supply Services	Biomass provisioning	Provision of functions such as cultivation and breeding, as well as the supply of natural plants, animals, fish, and other resources
	Genetic material	Contribution to breeding, genetic synthesis, and product development through genetic material
	Water supply	Provision of water with appropriate quality through flow regulation and purification
	Animal-based energy	Physical labor provided by species including oxen, horses, donkeys, goats, and elephants
Regulation and Maintenance Services	Global climate regulation	Regulation of global climate through the accumulation and retention of carbon and other GHG
	Rainfall pattern regulation	Regulation of subcontinental rainfall patterns by vegetation, particularly forests
	Local climate regulation	Adjustment of local atmospheric conditions by vegetation Urban greening, providing shade, etc.
	Air filtration	Uptake and fixing of pollutants by ecosystem components, particularly plants
	Soil quality regulation	Maintenance of soil fertility and decomposition of substances
	Soil and sediment retention	Control of soil erosion and mitigation of landslides by vegetation
	Solid waste remediation	Transformation of materials by microorganisms, algae, plants, and animals
	Water purification	Breakdown or removal of pollutants contained in water
	Water flow regulation	Release of water during dry periods through evapotranspiration and peak flow mitigation through water absorption and storage
	Flood mitigation	Coastal protection by the ecosystem and provision of physical barriers to rivers by riparian vegetation
	Storm mitigation	Mitigating the impacts of wind and other storms with vegetation
	Noise attenuation	Reduction in the impact of noise on people
	Biological control	Reduction of the impact of organisms that affect economic activities, human activities, or human health
	Nursery population and habitat maintenance	Sustaining populations of species through the maintenance of habitats or the protection of natural gene pools
	Dilution by atmosphere and ecosystems	Dilution of the gases, fluids, and solid waste by water and the atmosphere
	Mediation of sensory impacts	Reduction of light pollution and other sensory impacts by vegetation, particularly plants
Cultural Services	Recreations	Experiences and other benefits gained by making use of and enjoying the environment
	Visual amenities	Visual and other sensory benefits derived from ecosystems
	Education, science, and research	Utilization of the environment through intellectual interaction
	Spirit, art, and symbol	Significance in culture, history, art, and religion

Impacts		Overview
Inputs	Water use	Use of groundwater and surface water
	Land use	Use of land for agriculture, forest plantation, cast mine, etc.
	Freshwater use	Use of wetlands, ponds, lakes, rivers, and peatlands, and development of related infrastructure
	Seabed use	Use of the seabed for aquaculture, mining, etc.
	Biotic resource extraction	Use of fish, timber, mammals, etc.
	Abiotic resource extraction	Use of minerals, etc.
Outputs	GHG emissions	GHG emissions
	Emissions of non-GHG air pollutants	Emissions of air pollutants, including PM2.5, nitrogen oxides (NOX), and other pollutants
	Emissions of toxic pollutants to water and soil	Emissions of toxic substances, including heavy metals and chemicals
	Emissions of nutrient pollutants to water and soil	Emissions of nutrients that can lead to eutrophication, including nitrates and phosphates
	Release of solid waste	Emissions of waste to be processed through landfill or incineration
	Disturbance from noise and light	Production of noise or light pollution
	Introduction of invasive species	Direct introduction of non-native invasive species to areas of operation

Based on the Natural Capital Protocol and ENCORE

Classification of Nature-related Risks and Opportunities

The TNFD recommendations classify nature-related risks and opportunities as follows. In the “Category” column on pages 21-30, “ PR ” refers to physical risks, “ TR ” indicates transition risks, and “ O ” represents opportunities.

Physical risks	Acute	Occurrence of short-term, specific events that change the state of nature
	Chronic	Gradual changes to the state of nature.
Transition risks	Policy	Changes in the policy context to create positive impacts on nature or mitigate negative impacts on nature
	Market	Shifting dynamics across markets, including shifts in consumer preferences
	Technology	Substitution of products or services with a reduced impact on nature and/or reduced dependency on nature
	Reputation	Changes in perception concerning an organization’s actual or perceived nature impact
	Liability	Liability risks that arise directly or indirectly from legal claims
Opportunities	Market	Shifting dynamics across markets, including shifts in consumer preferences
	Cap EX/financing	Access to capital markets, improved financing terms, or financial products
	Resource efficiency	Avoiding or reducing dependencies and impacts that improve operational efficiency or reduce costs
	Products/services	Value proposition related to the creation or delivery of products and services that protect, manage, or restore nature
	Reputation	Changes in perception concerning an organization’s actual or perceived nature impact
	Sustainable use of natural capital	Substitution of natural resources by sustainable organic inputs
	Ecosystem conservation	Activities that support the protection, restoration, or regeneration of habitats and ecosystems

Based on the TNFD recommendations

1 Food Product Sector

• The key sector for engagements on sustainable palm oil sourcing (Page 32)

The analysis results are broken down by production process, as the sector has significant dependencies and impacts on nature that vary by production process.
Each production process has material risks related to dependence on nature. For the first step, the companies should better understand their production methods and the situation of production areas or suppliers. Then, they may initiate shifting to certified products or training suppliers. In addition, considering the impact of ecosystem use on nature and exploring countermeasures, such as regenerative agriculture, can also contribute to risk management.

Livestock Industry

Category		Risks and opportunities	Countermeasures
Dependency on biomass provisioning in cattle and buffalo farming			
TR	Market	Rising feed prices and increased procurement costs due to global demand growth for feed crops	• Promote dairy farming through self-sufficiency in feed crops. • Utilize by-product resources as feed.
TR	Liability	Decline in biodiversity due to improper or excessive use of fertilizers and pesticides, leading to reduced availability of ecosystem services	• Practice regenerative agriculture
Dependency on soil and sediment retention in the livestock industry			
PR	Chronic	Decline in soil fertility, loss of vegetation, soil erosion, and desertification caused by overgrazing, leading to the deterioration of livestock rearing environments, reduced production, and decreased revenues	• Practice regenerative agriculture • Engage with suppliers on deforestation issues • Make use of certified products
TR	Liability	Compensation costs arising from environmental damage caused by fertilizer and pesticide runoff, resulting from landslides and soil erosion due to a decline in soil retention capacity through excessive land clearing	
Dependency on rainfall pattern regulation in the livestock industry			
PR	Acute	Flooding and water-related disasters caused by intensified heavy rainfall, leading to the submergence of livestock farming areas, the reduction of farmland, and the suspension of production, resulting in decreased revenues and increased recovery costs	• Develop BCP, construct facilities based on hazard maps, and decentralize livestock production bases. • Secure relocation sites for livestock.
Dependency on education, science, and research in cattle and buffalo farming			
O	Reputation	Improved reputation through engagement activities with local communities on biodiversity, resulting in increased revenue	• Host educational programs and contests as part of community engagement.
Air pollution from non-GHG emissions in animal production			
PR	Acute	Localized air pollution caused by ammonia and nitrous oxide (N_2O) emissions from livestock barns and from fertilization of feed crops	• Use feed with adjusted protein content to reduce nitrogen excretion by livestock.
TR	Liability	Negative impacts on the living environment of nearby residents due to odors emitted from intensive livestock facilities, leading to compensation liabilities and response costs.	• Introduce air purification systems and control odors through temperature management.
Emissions of toxic pollutants to water and soil in the livestock industry			
PR	Acute	Eutrophication and groundwater contamination caused by the inflow of nitrogen, phosphorus, antibiotics, and other substances into water systems, due to improper management of livestock waste (manure and urine)	• Use feed with adjusted protein content.
PR	Chronic	Decreased production efficiency due to soil salinization and acidification caused by excessive use of fertilizers and pesticides, resulting in reduced revenues	• Ensure recovery periods for ecosystems through appropriate livestock planning.
Release of solid waste in the livestock industry			
PR	Acute	Eutrophication and groundwater contamination caused by the inflow of nitrogen, phosphorus, and other substances into water systems due to improper management of livestock manure	• Research and develop technologies to reduce methane emissions during manure treatment.
Land use in the livestock industry			
PR	Chronic	Negative impacts on production areas resulting from livestock farming that does not take ecosystem recovery periods into account, leading to decreased production efficiency and reduced revenues.	• Practice regenerative agriculture (e.g., rotational grazing, pasture restoration, cover crop cultivation, minimal tillage).
PR	Chronic	The negative impact on production areas caused by livestock farming that does not take into account the recovery period of ecosystems.	
Water use in animal production			
PR	Chronic	Deterioration of local water quality due to inflows of livestock facility drainage, animal waste, fertilizers, and pesticides	• Introduce water-saving equipment at livestock facilities.
TR	Reputation	Criticism from local communities due to excessive water use or water pollution, leading to operational suspension and subsequent revenue loss	

dependencies Impacts

PR Physical risks TR Transition risk O Opportunities

Risks and opportunities related to sustainability performance are indicated in green text.

Fisheries

Category		Risks and opportunities	Countermeasures
Dependency on biomass provisioning in fisheries			
PR	Chronic	Degradation of marine ecosystems due to bycatch and ghost fishing of marine life (seabirds, dolphins, whales, and sea turtles, etc.)	● Obtain MSC certification. ● Develop low-environmental-impact fishing methods.
TR	Policy	Strengthened fishing regulations leading to reduced catch volumes, procurement of seafood, and revenue	● Conduct supplier audits and traceability investigations.
Dependency on biomass provisioning in aquaculture			
PR	Chronic	Deterioration of marine ecosystems due to water pollution caused by excessive feed, accumulation of waste from farmed organisms, and drug administration	● Develop and promote the use of low-environmental-impact compound feed. ● Acquire ASC certification
TR	Policy	Strengthened environmental regulations on aquaculture leading to changes in business scale or closure of aquaculture facilities with subsequent revenue loss	● Reduce the environmental impact of marine feed and feeding practices. ● Transition to offshore aquaculture
Dependency on solid waste remediation in fisheries and aquaculture			
PR	Chronic	Water quality deterioration due to sludge accumulation caused by excessive feeding beyond decomposition capacity and other wastes, leading to a decline in production volume with subsequent revenue loss	● Transition to offshore aquaculture ● Implement closed-loop land-based aquaculture.
TR	Liability	Compensation costs arising from impacts on surrounding environments (e.g., fisheries) caused by the release of toxic substances from sludge accumulation	
Dependency on soil and sediment retention in fisheries and aquaculture			
PR	Acute	Reduction in revenues and increase in management costs due to business suspension caused by the intensification of wind and water damage	● Introduce floating and submersible cages and strengthen facilities. ● Enhance measures for land-based aquaculture.
Dependency on water purification in fisheries and aquaculture			
PR	Acute	Decrease in production volume and revenues due to red tide occurrences and increases in Biochemical Oxygen Demand (BOD)	● Preserve and restore seagrass beds, tidal flats, and coral reefs. ● Promote initiatives related to blue carbon.
Dependency on global climate regulation, water flow regulation, and rainfall pattern regulation in fisheries			
PR	Chronic	Decreased revenues and increased procurement costs due to changes in catch volume, fishing grounds, and fish species caused by rising seawater temperatures resulting from climate change	● Improve efficiency in exploring fishing grounds using drones.
TR	Policy	Increased response costs to strengthened GHG emission regulations, such as revising operations, production, and transportation methods	● Transition to natural refrigerants in refrigeration and freezing equipment ● Reduce CO_2 emissions in transportation.
Dependency on nursery population and habitat maintenance in fisheries			
PR	Chronic	Loss of genetic diversity due to the escape of genetically modified fish into the wild	● Monitor the distribution of genetically modified fish.
TR	Reputation	Damage to the reputation due to health concerns among consumers and stakeholders regarding the distribution of genetically modified fish	● Provide accurate information and engage with stakeholders.
Dependency on education, science, and research in fisheries			
TR	Reputation	Friction with indigenous and local communities due to production activities without consideration for them, leading to operational suspension and revenue loss	● Conduct surveys and data collection on fishery resources. ● Obtain MSC certification.
Dependency on freshwater use in fisheries and aquaculture			
PR	Chronic	Decrease in catch volume and revenues due to the negative impact on the marine ecosystem's habitat caused by the scale of operations, fishing gears, and fishing methods.	● Align operations with fishing regulations. ● Procure seafood certified by MSC.
PR	Chronic	Changes in the surrounding water environment due to the development of aquaculture facilities, leading to changes in the local ecosystem	● Introduce automatic feeding control systems. ● Acquire ASC certification ● Implement closed-loop land-based aquaculture.
TR	Reputation	Damage to the reputation among consumers and stakeholders due to significant environmental changes, resulting in decreased revenues and increased response costs	
Seabed use in fisheries and aquaculture			
PR	Chronic	Negative impacts on marine life and destruction of marine ecosystems caused by bottom trawling, leading to increased CO_2 emissions	● Suspend bottom trawling in marine protected areas
TR	Market	Decline in revenues due to increased interest in sustainable seafood among consumers and stakeholders	● Practice alternative fishing methods ● Acquire MSC/ASC certifications ● Implement seabed-friendly aquaculture methods
O	Market	Increased revenues through establishing market superiority for seafood products by obtaining MSC and ASC certifications	
Other biotic resource extraction in aquaculture			
PR	Chronic	Deterioration of marine ecosystems, including water quality and sediment, due to intensive shrimp farming, leading to reduced yields and revenues	● Introduce automatic feeding control systems. ● Acquire ASC certification ● Implement closed-loop land-based aquaculture.

dependencies Impacts

PR Physical risks TR Transition risk O Opportunities

Risks and opportunities related to sustainability performance are indicated in green text.

Category		Risks and opportunities	Countermeasures
Release of solid waste in fisheries and aquaculture			
PR	Chronic	Negative impacts on marine resources due to the loss/abandonment of fishing gear in the ocean, resulting in decreased catch and revenues	● Transition to floats with low risk of ocean leakage
TR	Reputation	Declined revenues due to poor reputation among consumers and stakeholders stemming from insufficient waste reduction efforts across the value chain	● Reduce the use of plastic containers/ packaging. ● Promote container/packaging recycling.
O	Products/ services	Securing new revenue sources by commercializing waste generated during fish processing	● Commercialize food waste

Agriculture

Category		Risks and opportunities	Countermeasures
Dependence on biomass provisioning in agriculture			
TR	Technology	Increased production costs due to measures (fertilizers and pesticides) to compensate for reduced yields caused by biodiversity loss	● Produce with zero deforestation ● Practice regenerative agriculture
Dependence on soil and sediment retention in agriculture			
PR	Chronic	Suspension of production due to landslides and soil erosion, resulting in decreased revenues	● Engage with suppliers on deforestation issues ● Make use of certified products
TR	Liability	Compensation costs arising from environmental damage caused by fertilizer and pesticide runoff, resulting from landslides and soil erosion due to a decline in soil retention capacity through excessive land clearing	
Dependence on water purification in agriculture			
PR	Chronic	Decrease in production and revenues due to water pollution or lack of safe/usable water	● Conduct supplier training on fertilizer/ pesticide use, waste removal, and wastewater management
TR	Technology	Increased costs from introducing new equipment to improve water quality	
Dependence on soil quality adjustment in agriculture			
PR	Chronic	Decreased production due to poor crop growth caused by soil quality degradation	● Practice regenerative agriculture
Dependence on genetic resources in agriculture			
PR	Chronic	Decreased production due to reduced disease/pest resistance and heat tolerance	● Improve crop tolerance to environmental stress using biostimulants
O	Products/ services	Increased production and revenues through the development of disease-resistant, heat-tolerant varieties via breeding and mutation	
Dependence on global rainfall pattern control in agriculture			
PR	Acute	Suspension of operations in areas at high risk of inland flooding due to intensified water damage from heavy rains, resulting in decreased revenues and increased recovery costs	● Procure raw materials from multiple production areas and obtain on-site information to monitor the situation ● Practice crop production on sandy soil
PR	Acute	Decreased production and revenues due to increased pest and disease damage caused by rising temperatures	
Dependence on water supply in agriculture			
PR	Chronic	Decrease in production due to water shortages	● Promote cultivation techniques based on scientific evidence
Dependence on regional climate control and storm mitigation in agriculture			
PR	Chronic	Decrease in production and revenues due to temperature increases and changes in precipitation, making areas unsuitable for production	● Procure raw materials from multiple production areas and obtain on-site information to monitor the situation ● Practice crop production on sandy soil
PR	Acute	Decrease in production and revenues due to crop lodging caused by tornadoes and strong winds	
Dependence on pollination in agriculture			
PR	Chronic	Decrease in production and revenues of fiber crops due to the loss of pollinators	● Reduce pesticide use and consider alternative pest control methods ● Implement diversified agriculture
O	Ecosystem conservation	Improvement in crop production and revenues through advancements in beekeeping techniques	
Dependence on education, science and research or spirit, art and symbol in plant propagation and seed processing			
O	Products/ services	Mitigation of biodiversity impacts through regenerative agriculture utilizing indigenous and local knowledge	● Engage with indigenous and local communities

dependencies Impacts

PR Physical risks TR Transition risk O Opportunities

Risks and opportunities related to sustainability performance are indicated in green text.

Category		Risks and opportunities	Countermeasures
Other biotic resource extraction in non-timber forest product harvesting			
PR	Chronic	Decrease in yield and revenues due to population decline caused by excessive extraction of natural resources	● Practice organic farming that leverages nature's regenerative capacity
Emissions of nutrient pollutants into water and soil in agriculture			
TR	Policy	Decrease in production and revenues due to regulations on emissions of toxic pollutants	● Practice regenerative agriculture
TR	Liability	Compensation costs arising from negative environmental impacts.	
Dependence on water use in agriculture			
TR	Policy	Decrease in production and revenues due to regulations such as water usage restrictions	● Promote science-based, efficient cultivation techniques ● Reuse agricultural wastewater
TR	Technology	Increased costs from developing water usage reduction technologies	
O	Resource efficiency	Reduced water risks and operational costs through water reuse	
Introduction of invasive species in agriculture			
TR	Reputation	Decreased revenues due to reputation damage for contributing to the introduction or spread of invasive species	● Implement cultivation methods that do not use invasive species ● Remove invasive species, clean agricultural machinery
TR	Liability	Costs incurred in removing invasive species and restoring local ecosystems	

Food processing and manufacturing industry

Category		Risks and opportunities	Countermeasures
Dependence on water purification in food manufacturing and processing			
PR	Chronic	Decrease in production and revenues due to water pollution or lack of safe/usable water	● Develop purification facilities ● Improve water-use efficiency (install water-saving nozzles, reuse well water and wastewater, etc.) ● Implement water source conservation initiatives
TR	Technology	Increased costs from introducing new equipment to improve water quality	
TR	Policy	Decrease in production and revenues due to non-compliance with regulatory standards caused by water quality deterioration	
Emissions of nutrient pollutants into water and soil during food processing and preservation			
TR	Reputation	Damage to the reputation among consumers and stakeholders due to contamination of products with toxic substances and foreign matter during the manufacturing processes, resulting in decreased revenues and increased response costs	● Implement hygiene and food safety management in line with HACCP and FSSC22000 ● Ensure traceability
TR	Liability	Compensation costs for consumer health damages caused by contamination of products with toxic substances and foreign matter during food processing	

dependencies Impacts

PR Physical risks TR Transition risk O Opportunities

Risks and opportunities related to sustainability performance are indicated in green text.

2 Chemical Sector

The manufacturing process depends heavily on water quality and makes significant impacts on living environments through noise/light pollution, as well as on nature through the emission of toxic pollutants. Considering these impacts and implementing countermeasures (e.g., introducing low-environmental-impact equipment or adjusting operating hours) seems not only to mitigate risks but also to create opportunities.

Category		Risks and opportunities	Countermeasures
Dependency on water purification in mineral procurement			
PR	Chronic	Decrease in revenue due to production halts or procurement failures caused by water quality deterioration	● Introduce filtration and water reuse systems.
TR	Liability	Compensation costs arising from employees' health deterioration due to water quality degradation	
TR	Technology	Increased costs from introducing new equipment to improve water quality	
TR	Policy	Decrease in production and revenues due to non-compliance with regulatory standards caused by water quality deterioration	
Dependency on rainfall pattern control in mineral procurement			
PR	Acute	Revenue loss due to production suspensions caused by heavy rainfall	● Assess water risks.
PR	Chronic	Production adjustments (reduced outputs) or suspensions due to water resource depletion following low rainfall, resulting in decreased revenues	
TR	Policy	Reduced output due to production adjustments/suspensions caused by stricter regulations, including water usage limits, resulting in revenue loss	● Reduce water intake. ● Introduce water reuse systems.
TR	Technology	Increased costs from developing water usage reduction technologies	
TR	Reputation	Increased financing costs due to insufficient efforts to minimize environmental impact compared to competitors.	
O	Resource efficiency	Reduced water risks and operational costs through water reuse	
Disruption to living environments in chemical product manufacturing			
TR	Policy	Reduced output due to production adjustments/suspensions caused by stricter regulations on minimizing environmental impacts (e.g., operating hour restrictions), resulting in revenue loss.	● Introduce low-noise equipment, LED lights, and louver devices. ● Adjust operating hours. ● Regularly monitor noise and light pollution.
TR	Technology	Increased costs for introducing equipment to minimize negative environmental impacts.	
TR	Reputation	Increased financing costs due to insufficient efforts to minimize environmental impact compared to competitors.	
TR	Reputation	Revenue loss due to a negative reputation for insufficient efforts to minimize environmental impact compared to competitors.	
TR	Liability	Compensation costs for negative environmental impacts caused by the company.	
O	Reputation	Increased revenue driven by improved reputation among consumers and stakeholders regarding products and services that are more environmentally friendly than those of competitors, as well as increased usage	
O	Cap EX/ financing	Increased funding due to improved evaluation from investors/financial institutions recognizing environmentally-friendly products/services.	
Emission of toxic pollutants into water and soil in chemical product manufacturing			
TR	Policy	Reduced output due to production adjustments/suspensions caused by stricter regulations on toxic pollutant emissions	● Reduce COD (Chemical Oxygen Demand) emissions.
TR	Technology	Increased costs from introducing new equipment to remove toxic substances	● Increase investment in improving purification equipment.
TR	Reputation	Increased financing costs due to insufficient efforts to minimize environmental impact compared to competitors.	
TR	Reputation	Revenue loss due to a negative reputation for insufficient efforts to minimize environmental impact compared to competitors.	
TR	Liability	Compensation costs for negative environmental impacts caused by the company.	

dependencies Impacts

PR Physical risks TR Transition risk O Opportunities

Risks and opportunities related to sustainability performance are indicated in green text.

3 Household Durables Sector

The household durables sector seems highly dependent on rainfall patterns and has significant impacts on living environments due to noise and light pollution, as well as on nature through the release of toxic pollutants into water and soil. Countermeasures for related risks and opportunities include conducting water risk assessments, reviewing hazard maps for construction sites, introducing low-noise equipment and low-environmental-impact devices, and developing technologies to purify contaminated groundwater.

Category		Risks and opportunities	Countermeasures
Dependency on rainfall pattern control in the construction industry			
PR	Acute	Construction work halts, project delays, increased labor costs, and repair/mitigation expenses due to flooding at construction sites	● Conduct water risk assessments and review hazard maps for construction sites.
PR	Chronic	Disruptions in the supply chain due to floods or droughts, resulting in increased procurement costs for construction materials, project delays, and additional costs.	● Diversify supply chains. ● Use low-environmental-impact products, including certified/recycled wood.
TR	Liability	Compensation costs for employees affected by floods at construction sites	● Conduct water risk assessments and review hazard maps for construction sites. ● Introduce unmanned and automated construction machinery.
Dependency on soil and sediment retention in the construction industry			
PR	Acute	Increased costs due to construction halts, repair, and mitigation efforts, arising from landslides or soil erosion	● Conduct water risk assessments and review hazard maps for construction sites. ● Introduce unmanned and automated construction machinery.
TR	Liability	Compensation costs for employees affected by landslides or soil erosion at construction sites	
Disruption to living environments in the construction industry			
TR	Policy	Stricter regulations to minimize environmental impact (e.g., operating hour restrictions), leading to construction delays and additional costs	● Introduce low-noise equipment, LED lights, and louver devices. ● Adjust operating hours. ● Regularly monitor noise and light pollution.
TR	Technology	Increased costs for introducing equipment to minimize negative environmental impacts.	
TR	Reputation	Revenue loss due to a negative reputation for insufficient efforts to minimize environmental impact compared to competitors.	
O	Reputation	Increased revenue driven by improved reputation among consumers and stakeholders regarding products and services that are more environmentally friendly than those of competitors, as well as increased usage	
GHG emissions in the construction industry			
TR	Policy	Increased business costs due to stricter CO_2 emission regulations and the introduction of carbon taxes	● Introduce zero-emission construction machinery. ● Use RE at construction sites.
TR	Reputation	Revenue loss due to a negative reputation for insufficient efforts to minimize environmental impact compared to competitors.	
O	Reputation	Increased revenue driven by improved reputation among consumers and stakeholders regarding products and services that are more environmentally friendly than those of competitors, as well as increased usage	
Non-GHG air pollution in the construction industry			
TR	Liability	Compensation costs for health damages to consumers caused by hazardous chemicals or PFAS used in furniture manufacturing processes	● Compliance with relevant regulations. ● Restrict/eliminate the use of hazardous chemicals and PFAS.
TR	Policy	Increased costs due to stricter regulations on hazardous chemicals and PFAS	
TR	Reputation	Revenue loss due to a negative reputation for insufficient efforts to minimize environmental impact compared to competitors.	
O	Cap EX/ financing	Increased funding due to improved evaluation from investors/financial institutions recognizing environmentally-friendly products/services.	
Emission of toxic pollutants into water and soil in construction and manufacturing processes			
TR	Policy	Revenue loss due to production adjustments/suspensions caused by stricter wastewater regulations	● Conduct regular surveys of groundwater and soil. ● Introduce wastewater monitoring and management systems (e.g., automated monitoring devices, wastewater shutoff gates, emergency storage tanks).
TR	Technology	Increased costs from introducing new equipment to remove toxic substances	
TR	Reputation	Revenue loss due to a negative reputation for insufficient efforts to minimize environmental impact compared to competitors.	
TR	Liability	Compensation costs for negative environmental impacts caused by the company.	
O	Products/ services	Increased revenue through developing/manufacturing sustainable products	● Manufacture products using waterless dyeing methods.

dependencies Impacts

PR Physical risks TR Transition risk O Opportunities

Risks and opportunities related to sustainability performance are indicated in green text.

4 Pharmaceutical Sector

The pharmaceutical sector is highly dependent on water-related ecosystem services and genetic resources. Potential countermeasures to related risks and opportunities include efficient use of water resources, cultivation of wild medicinal plants, and the implementation of sustainable raw-material farming practices.

Category		Risks and opportunities	Countermeasures
Dependency on water purification in pharmaceutical manufacturing			
PR	Chronic	Decrease in revenue due to production halts or procurement failures caused by water quality deterioration	● Efficient utilization of water resources (water conservation and reuse)
TR	Technology	Increased costs from introducing new equipment to improve water quality	
TR	Policy	Decrease in production and revenues due to non-compliance with regulatory standards caused by water quality deterioration	
TR	Policy	Increased compliance costs due to stricter international/domestic standards on water pollution in antibiotic manufacturing processes	● Conduct environmental testing for pharmaceuticals and risk assessments for human health and the environment. ● Implement control and management of antimicrobial environmental emissions in line with AMR Industry Alliance standards.
Dependency on education, science, and research in pharmaceutical manufacturing			
TR	Reputation	Revenue loss due to a negative reputation for insufficient information on pharmaceuticals and medical products	● Conduct scientific research and analysis on wild medicinal plant components and traditional herbal medicines.
Dependency on genetic resources in pharmaceutical manufacturing			
PR	Chronic	Revenue loss due to the inability to produce new drugs caused by loss of genetic diversity resulting from biodiversity destruction, including excessive pesticide use	● Cultivate wild medicinal plants and implement sustainable farming practices for raw materials.
TR	Reputation	Revenue loss due to a negative reputation for environmental pollution caused by the release of genetically modified organisms or pathogens	● Establish and comply with internal regulations based on domestic/international laws and legislations.
O	Sustainable use of natural capital	Increased revenue through developing new drugs utilizing disease resistance components derived from genetic diversity	● Cultivate wild medicinal plants and implement sustainable farming practices for raw materials.
Dependency on water supply in pharmaceutical manufacturing			
PR	Chronic	Revenue loss due to production suspensions caused by water shortages	● Efficient utilization of water resources (water conservation and reuse) ● Implement water replenishment, restoration, and rehabilitation activities at the watershed level.
TR	Policy	Reduced output due to production adjustments/suspensions caused by regulations on water usage	
TR	Technology	Increased costs from developing water usage reduction technologies	
O	Reputation	Increased revenue driven by improved social reputation for restoring local ecosystems	● Collaborate with local NGOs.
O	Resource efficiency	Reduced water risks and operational costs through water reuse	● Efficient utilization of water resources (water conservation and reuse)
Dependency on water flow regulation in pharmaceutical manufacturing			
PR	Acute	Revenue loss due to production suspensions/halts caused by flooding	● Conduct water risk assessments and strengthen BCP.
TR	Liability	Costs for ecosystem restoration caused by the leakage of hazardous chemicals or the spread of genetically modified organisms due to natural disasters, including floods	

dependencies Impacts

PR Physical risks TR Transition risk O Opportunities

Risks and opportunities related to sustainability performance are indicated in green text.

5 Paper Products and Forest Products Sector

• A key sector for engagement regarding the sustainable procurement of paper and timber (Page 33)

Since the paper and forest products sector uses wood, it is considered to have a significant impact on nature due to its dependence on biological resources, its reliance on soil, and its land-use practices. Accurate assessment of forest management practices, as well as measures such as the expanded use of certified wood, are considered essential.

Category		Risks and opportunities	Countermeasures
Dependency on biomass provisioning in afforestation			
PR	Chronic	Significant loss of biodiversity due to improper land use and management, leading to reduced availability of ecosystem services	• Establish conservation forests • Preserve water sources.
TR	Policy	Increased compliance costs due to stricter regulations on forest conservation	• Implement responsible business practices across the value chain.
O	Resource efficiency	Reduced raw material procurement costs through closed-loop recycling of paper products	• Build material recycling systems.
Dependency on biomass provisioning in logging			
PR	Chronic	Significant loss of biodiversity due to excessive logging, leading to reduced availability of ecosystem services	• Establish conservation forests. • Preserve water sources.
TR	Reputation	Decline in demand for paper and forest products due to negative perceptions of deforestation	• Accurately assess and disclose forest management practices. • Expand the use of certified wood and low-environmental-impact materials.
Dependency on soil and sediment retention in forestry activities			
PR	Chronic	Decline in soil retention capacity due to excessive logging, leading to operational halts and reduced revenues of paper and forest products	• Maintain and improve forest cover. • Establish conservation forests.
Dependency on water purification in forestry activities			
PR	Chronic	Reduced timber production due to water pollution and shortages of safe/usable water, leading to decreased output and revenues of paper and forest products	• Develop and implement water management plans. • Conduct water usage monitoring
TR	Liability	Additional costs (e.g., fines) related to water pollution	• Address penalties and prevent similar incidents.
Dependency on soil quality adjustment in forestry activities			
PR	Chronic	Poor tree growth due to degraded soil quality, resulting in reduced raw materials and production volume	• Improve soil fertility and productivity through mulching.
O	Products/ services	Environmental restoration through soil purification technologies utilizing plant power	• Develop and commercialize contaminated soil purification methods.
Dependency on global and regional climate regulation in forestry activities			
PR	Chronic	Revenue loss due to reduced forest growth and productivity caused by climate change	• Conduct studies on the impact of climate change on forests and implement climate- adaptive forest management.
PR	Acute	Suspension of operations in areas at high risk of inland flooding due to intensified water damage, resulting in decreased revenues and increased recovery costs	• Select operational sites considering flood risks. • Develop BCP.
O	Products/ services	Increased revenue through afforestation activities adapted to climate change, improving forest growth and productivity	• Conduct research and development on climate-adaptive forestry.
Dependency on rainfall pattern control in forestry activities			
PR	Chronic	Reduced timber productivity due to decreased rainfall and prolonged drought periods, leading to increased costs and revenue loss	• Establish reservoirs. • Implement soil tilling.
O	Resource efficiency	Stable procurement of raw materials in terms of quantity and quality through the transition to drought-resistant tree species	• Conduct research on the impact of reduced rainfall on genotypes and tree growth.
Dependency on rainfall pattern control in forestry support services			
PR	Chronic	Increased costs for forest regeneration and fire prevention due to worsening fire weather and increased frequency of forest fires	• Introduce fire prevention systems utilizing AI. • Conduct firefighting and disaster prevention activities in collaboration with local businesses and residents.
Non-GHG air pollution in forestry activities			
PR	Chronic	Emissions of non-GHG air pollutants due to excessive use of pesticides and chemical fertilizers, leading to ozone layer depletion	• Improve soil fertility and productivity through mulching.
PR	Acute	Air pollution and global warming caused by exhaust emissions from heavy machinery used in logging	• Select and utilize heavy machinery with consideration for reducing environmental impact.
Land use in forestry activities			
TR	Reputation	Loss of business opportunities due to reputational damage in case of deforestation, ecosystem degradation, or human rights violations in plantation areas	• Expand the use of certified wood and low-environmental-impact materials. • Strengthen stakeholder engagement.
TR	Liability	Increased costs due to lawsuits or compensation responsibilities arising from negative impacts on protected areas	• Conduct environmental assessments and ensure regulatory compliance. • Regularly monitor natural forests within plantation areas.
O	Ecosystem conservation	Improved land health and enhanced ecosystem services through the use of degraded land	• Restore and regenerate natural forests on land damaged by natural disasters.
Land use in logging			
PR	Acute	Increased response costs due to damage to nearby forests, vegetation, and local communities caused by forest fires	• Establish firebreak forests.
Other biotic resource extraction in forestry activities			
PR	Chronic	Ecosystem degradation in operational areas due to logging exceeding the recovery capacity	• Develop and implement forest management programs that consider the recovery capacity of natural ecosystems.
O	Ecosystem conservation	Improved forest resilience through ecosystem conservation/recovery activities and the use of degraded land	• Restore and regenerate natural forests on land damaged by natural disasters.

dependencies Impacts

PR Physical risks TR Transition risk O Opportunities

Risks and opportunities related to sustainability performance are indicated in green text.

6 Metals and Mining Sector

The metals and mining sector is highly dependent on water resources during the manufacturing process and has substantial environmental impacts through the release of toxic pollutants into water and soil. Potential countermeasures to the related risks and opportunities include promoting the use of rainwater and recycled water, as well as monitoring water quality and quantity in aquatic ecosystems.

Category		Risks and opportunities	Countermeasures
Dependency on flood mitigation and global climate regulation in the steel and non-ferrous metals mining industry			
PR	Acute	Production suspensions due to intensified water-related disasters, leading to decreased production volume and revenue, as well as increased recovery costs	• Implement levee construction, quay wall reinforcement, and ground strengthening measures. • Preserve ecosystem services through afforestation.
PR	Chronic	Reduced production volume and revenue due to shortened working hours and decreased efficiency of workers caused by rising temperatures	• Set work and break times based on the heat index, introduce cooling equipment (e.g., air-conditioned clothing, neck coolers).
Dependency on water purification, water supply, water flow regulation, and rainfall pattern control in mining and metal manufacturing			
PR	Acute	Increased operational costs due to production suspensions, repairs, and countermeasures arising from flooding	• Implement levee construction, quay wall reinforcement, and ground strengthening measures.
PR	Chronic	Production suspensions/halts caused by water quality deterioration or water flow changes, leading to reduced production volume and revenue	• Promote the use of rainwater and recycled water. • Introduce water reuse facilities. • Utilize alternative water sources (e.g., seawater desalination).
TR	Policy	Reduced production volume and revenue due to stricter regulations on water quality and usage	
TR	Technology	Increased costs from developing technologies for water quality improvement or water usage reduction	
O	Resource efficiency	Reduced water risks and operational costs through water reuse	• Promote the use of rainwater and recycled water. • Utilize alternative water sources.
Disruption to living environments in steel, non-ferrous metals mining, and metal casting industries			
TR	Policy	Reduced production volume and revenue due to stricter regulations aimed at minimizing environmental impact (e.g., operating hour restrictions)	• Introduce low-noise equipment, LED lights, and louver devices. • Adjust operating hours. • Conduct regular monitoring of noise and light pollution.
TR	Technology	Increased costs for introducing equipment and facilities to minimize environmental impact	
Dependency on freshwater and seabed use in steel and non-ferrous metals mining			
TR	Policy	Reduced revenue due to production adjustments/halts caused by stricter regulations on freshwater/seabed use	• Develop biodiversity management plans and implement biodiversity offsets.
O	Cap EX/financing	Increased funding due to improved evaluation from investors/financial institutions recognizing environmentally-friendly products/services.	• Develop biodiversity management plans and implement biodiversity offsets.
GHG emissions in the steel industry			
TR	Policy	Increased costs due to the introduction of carbon taxes	• Use RE. • Change transportation methods for materials.
O	Reputation	Increased revenue due to the improved reputation of products/services as more environmentally friendly compared to competitors	
Non-GHG air pollution in steel, non-ferrous metals mining, and related industries			
PR	Chronic	Compensation costs for work-related accidents or health hazards suffered by employees due to deteriorated occupational health and safety	• Establish environmental and safety management systems. • Conduct education and training on occupational health and safety.
TR	Policy	Reduced revenue due to production adjustments/halts caused by stricter regulations aimed at minimizing environmental impact	• Prevent the scattering of raw materials and dust. • Improve the performance of desulfurization equipment.
Other abiotic resource extraction in steel and non-ferrous metals mining			
TR	Liability	Increased costs due to delays in operations or compensation caused by opposition from local communities and environmental activists	• Restrict activities in areas near protected regions. • Develop and implement biodiversity management plans. • Green space restoration at closed mine sites
O	Reputation	Increased revenue due to the improved reputation of products/services as more environmentally friendly compared to competitors	
Emission of toxic pollutants into water and soil in the steel industry			
TR	Policy	Reduced revenue due to production adjustments (reduced outputs) or halts caused by stricter regulations on toxic pollutant emissions	• Monitor water quality and quantity in aquatic ecosystems. • Install automatic wastewater monitoring devices, wastewater shutoff gates, and emergency storage tanks.
TR	Technology	Increased costs from introducing new equipment to remove toxic substances	
Emission of toxic pollutants into water and soil in non-ferrous metals mining			
PR	Chronic	The leakage of heavy metals due to improper treatment of wastewater at abandoned/closed mines, resulting in pollution of surrounding river environments	• Maintain and manage tailings storage facilities. • Reduce water usage by using recycled water.
O	Sustainable use of natural capital	Reduced waste generation through the utilization of by-products	• Establish effective utilization cycles for by-products.
Release of solid waste in steel and non-ferrous metals mining			
TR	Technology	Increased costs from introducing new equipment to remove toxic substances	• Reuse iron ore tailings. • Recycle waste and by-products, develop new applications. • Maintain and manage tailings storage facilities.
O	Products/ services	Increased revenue through the commercialization of by- products (e.g., steel slag, iron ore tailings, and other chemicals)	
Common impacts across all areas			
TR	Reputation	Increased financing costs due to negative environmental impacts	• Implement countermeasures toward related risks and opportunities.
TR	Reputation	Revenue loss due to negative reputation from adverse impacts on nature	

dependencies Impacts

PR Physical risks TR Transition risk O Opportunities

Risks and opportunities related to sustainability performance are indicated in green text.

7 Independent Power Producers and Energy Retailers Sector

The global demand for RE is definitely growing as part of efforts to address climate change. On the other hand, RE involves diverse and significant dependencies on and impacts on nature across each generation method, potentially carrying related risks. To address these challenges, it is considered important to implement measures to reduce impacts on nature, and to develop and introduce efficient generation technologies, which would be crucial.

Category		Risks and opportunities	Countermeasures
Dependency on soil and sediment retention in nuclear and hydropower generation			
PR	Acute	Damage to power generation facilities caused by landslides due to reduced soil retention capacity	● Maintain and improve forest cover ● Establish collaboration agreements with local governments.
PR	Acute	Leakage of radioactive materials and environmental pollution caused by the above-mentioned damage	
Dependency on flood mitigation in hydropower and wind power generation			
PR	Acute	Operational suspensions due to flooding-related facility damage, resulting in reduced power generation and revenue	● Build power plants in areas with low flood risk. ● Introduce systems that adapt to changes in flow rate.
Dependency on global climate regulation in solar and wind power generation			
PR	Acute	Operational suspensions due to intensified water-related disasters, including heavy rains, leading to reduced generation and revenue and increased recovery costs	● Install flood protection equipment (e.g., waterproof walls, floodgates).
PR	Chronic	Reduced generation efficiency due to decreased solar radiation, deteriorating wind conditions, and rising temperatures, leading to reduced output and revenue	● Conduct regular maintenance of cooling equipment.
Dependency on water supply in thermal and nuclear power generation			
PR	Chronic	Operational restrictions due to limitations on the use of cooling water, leading to reduced generation and revenue	● Efficient utilization of water resources ● Protect water supply systems in surrounding areas.
TR	Reputation	Revenue loss due to negative reputation for environmental/health impacts through using seawater as cooling water and discharging wastewater into the sea	● Manage thermal discharge and conduct environmental monitoring of water bodies.
Dependency on water supply in hydropower generation			
PR	Chronic	Reduced generation and revenue caused by water shortages	● Operate dams using weather information. ● Install reservoirs and develop storage batteries.
TR	Technology	Increased investment costs from upgrading to water-saving equipment	● Efficient utilization of water resources
Dependency on water flow regulation in thermal, nuclear, and hydropower generation			
PR	Acute	Reduced generation and revenue caused by operational restrictions during droughts	● Operate dams using rainfall forecasts.
PR	Acute	Operational suspensions due to damage/destruction/submergence of generation facilities caused by flooding or insufficient water flow, leading to reduced output and revenue and increased recovery costs	● Strengthen facilities (e.g., install waterproof doors at power plants).
Disruption to living environments in thermal, nuclear, and hydropower generation			
TR	Policy	Reduced generation and revenue due to stricter regulations aimed at minimizing environmental impact (e.g., operating hour restrictions)	● Introduce low-noise equipment, LED lights, and louver devices; adjust operating hours
TR	Liability	Compensation costs arising from negative environmental impacts	
Dependency on freshwater use in hydropower generation			
PR	Chronic	Negative impacts on biodiversity caused by changes and adjustments to water flow during hydropower operations	● Install and monitor reservoirs. ● Construct fishways.
PR	Acute	Increased repair costs, as well as reduced generation and revenue, caused by sediment accumulation damaging dam storage and power generation functions	● Reduce erosion through sediment discharge.
GHG emissions in thermal power generation			
PR	Acute	Air pollution and global warming caused by GHG emissions	● Upgrade generation facilities to reduce GHG emissions. ● Capture GHG during power generation.
TR	Policy	Increased tax burden due to the introduction of carbon taxes	
Non-GHG air pollution and emission of toxic pollutants into water and soil in thermal power generation			
PR	Acute	Reduce emissions and conduct water quality monitoring	● Reduce COD (Chemical Oxygen Demand) emissions and conduct water quality monitoring. ● Invest in improving exhaust-gas purification and wastewater treatment equipment.
TR	Technology	Increased costs from introducing new equipment to remove toxic substances	
TR	Liability	Compensation costs arising from negative environmental impacts	
Release of solid waste in thermal power generation			
TR	Liability	Compensation costs arising from negative environmental impacts	● Implement proper maintenance and decommissioning of final disposal sites.
O	Products/ services	Increased revenue through the development and sale of products utilizing waste materials	● Reuse coal ash (e.g., for cement, building materials, recycled roadbed materials).
Release of solid waste in nuclear power generation			
PR	Chronic	Ecosystem degradation around disposal sites caused by high-level radioactive waste	● Invest in research on disposal methods. ● Select final disposal sites avoiding fault lines.
TR	Policy	Increased safety costs for radioactive waste disposal due to stricter regulations	
TR	Liability	Compensation costs arising from radioactive material leakage into surrounding areas	
Solid waste emissions in thermal power generation			
PR	Chronic	Ecosystem alteration and degradation caused by the installation of wind power plants	● Consider protected areas during site selection. ● Locate near existing infrastructure.
General opportunities			
O	Reputation	Increased demand for RE due to regulatory changes related to climate change	—

dependencies Impacts

PR Physical risks TR Transition risk O Opportunities

Risks and opportunities related to sustainability performance are indicated in green text.

3 Next Steps based on the Results

As committed in “Our Policy on Climate” and “Our Policy on Nature,” our approaches to managing climate/nature-related risks and opportunities include collaborating with investees through stewardship activities, such as ESG integration, engagement (including collaborative engagement), and proxy voting, as well as considering the development and provision of related financial products. We aim to reduce the negative impacts on the climate and nature across society, adopting the philosophy of a Universal Owner.
In accordance with these policies, we are currently advancing various initiatives. To further advance the management of material climate/nature-related risks and opportunities, we will leverage the analysis results from 1 and 2 and continue implementing additional initiatives and improvements. We will also set appropriate metrics and targets to evaluate the progress and effectiveness of our initiatives (for details, please refer to the “Metrics and Targets” chapter).
Below, we describe the current status of our efforts to manage significant climate and natural-related risks and opportunities, along with our future strategy.

ESG Integration

Resona ESG Ratings

Current status

Our in-house corporate rating, “Resona ESG Ratings,” is used for ESG integration; for example, assigning the ratings to our investee companies and excluding those that fall below a specified level from the investable universe. The “Resona ESG Ratings” include climate/nature-related criteria such as “GHG emissions,” “energy consumption per unit of production,” and “total water usage.” Additionally, in calculating the scores, we identify “material ESG issues” for each sector and assign greater weight to issues deemed more significant. Furthermore, we are working to continuously improve our assessment methods, including by incorporating the analysis results of material climate-related risks and opportunities identified in Section 1 into our scoring model.

*For details of the Resona ESG Ratings, please refer to our Sustainability Report.
https://www.resona-am.co.jp/sustainability/integration.html

Moving forward

We will consider expanding the scope of application for the analysis results.

Engagement

Collaborative Engagement

Current status

We actively participate in collaborative engagement related to climate and nature as described below.

C	N	
AIGCC Asian Utilities Engagement Program	FAIRR Protein Diversification Engagement	Nature Action 100
CDP Non-Disclosure Campaign	FAIRR Sustainable Aquaculture Engagement	SPRING: A PRI STEWARDSHIP INITIATIVE ON NATURE
CDP SBT Campaign	FfB* Deforestation-Free Automotive Sector	Valuing Water Finance Initiative
Climate Action 100+	Investor Initiative on Hazardous Chemicals	

* FfB: Finance for Biodiversity

Moving forward

By leveraging the analysis results, we will contribute to the collaborative engagements already underway, making the activities more effective and efficient. Additionally, we will continue to consider new participation in collaborative engagements deemed beneficial for managing material climate/nature-related risks and opportunities, within available management resources.

In-house engagements

Current status

We conduct the following climate/nature-related engagements in-house. These engagements aim to encourage investee companies to take the initiative in addressing climate/nature-related risks and opportunities and to maintain and enhance the sustainability of climate and nature, which form the foundation of corporate and economic activities.

Engagement on sustainable palm oil production and procurement

Deforestation and peatland development associated with palm oil production contribute to significant climate/nature impacts. In light of this, we conduct engagement with major domestic investee companies involved in the palm oil supply chain, particularly those handling large volumes of palm oil. Setting milestones, we ultimately request the following: (i) Disclosure of procurement targets and achievements for RSPO-certified palm oil, and (ii) Establishment of palm oil procurement policies incorporating NDPE (No Deforestation, No Peat, No Exploitation). Regarding palm oil production, we are also conducting engagements and outreach with major investee companies in Southeast Asia.

【Related metrics】
- Number of companies with which we conducted engagement activities on climate change (P46)
- Number of companies with which we conducted engagement activities on natural capital (P53)
- Percentage of in-house engagement target companies that meet specific conditions related to sustainable palm oil procurement (P47)
- GHG emissions of investee companies (P47), etc.

Engagement with companies in high GHG emission sectors

Through collaborative engagements such as “Climate Action 100+*1,” we request companies in high-GHG-emission sectors to take initiatives to reduce their emissions. However, engagement through these collaborative initiatives do not cover all companies in high-emission sectors. In light of this, we conduct our own in-house engagement with companies in high-GHG-emission sectors (mainly “chemicals,” “cement,” “electric power,” and “metals and mining”) that are not subject to such collaborative engagements. In this engagement, we base our approach on the “Net Zero Company Benchmark*2” used by “Climate Action 100+.” We request investee companies to address key items deemed critical for transitioning to net zero, including: (i) Setting quantitative GHG emission reduction targets (medium-term and long-term); (ii) Disclosing plans and reduction achievements to meet the targets outlined in (i); (iii) Improving climate-related governance.

*1 An initiative conducting collaborative engagements with 170 major global companies, requesting enhanced commitments to the Paris Agreement, institutional frameworks and disclosure practices.
*2 A disclosure framework designed to evaluate the progress of major global GHG-emitting companies in transitioning to net zero.

【Related metrics】
- Number of companies with which we conducted engagement activities on climate change (P46)
- Percentage of in-house engagement target companies that meet certain conditions for transition to net zero (P46)
- GHG emissions of investee companies (P47), etc.

Engagement on avoided emissions

“Avoided Emissions” refers to the difference between the GHG emissions generated when a company implements solutions (products, services, technologies, or projects) and the emissions that would have occurred in their absence. We recognize that avoided emissions, which represent companies’ contributions to reducing GHG emissions across society, are also useful for identifying companies with high future profitability by capturing climate-related transition opportunities. At this point, a limited number of companies disclose their avoided emissions. We also recognize that the quality of the disclosed data is not always assured.

In light of this situation, we have started by requesting investee companies in sectors considered to have a high awareness of contributing to GHG emission reductions through their products and services: (i) Electrical equipment sector, (ii) Chemical sector, and (iii) Machinery sector*, to disclose their avoided emissions and calculation methodologies.

*Reference to CDP and other surveys

【Related metrics】
- Number of companies with which we conducted engagement activities on climate change (P46)
- Number of companies disclosing avoided emissions (P46), etc.

Engagement on sustainable paper and timber procurement

Destruction of natural forests for plantation development, including logging and controlled burning associated with paper and timber production, significantly impacts natural capital. In light of this, we conduct engagement activities with major domestic investee companies involved in the paper and timber supply chain, particularly those handling large volumes of paper and timber; By setting milestones, we ultimately request the following: (i) Formulation of sustainable paper and timber procurement policies, and (ii) Disclosure of procurement targets and achievements for sustainable paper and timber (e.g., FSC-certified* products).

※ FSC is an international certification system aimed at promoting the production and use of sustainable forest products.

【Related metrics】
- Number of companies with which we conducted engagement activities on climate change (P46)
- Number of companies with which we conducted engagement activities on natural capital (P53)
- Percentage of in-house engagement target companies that meet specific conditions related to sustainable paper and timber procurement (P54)
- GHG emissions of investee companies (P47), etc.

Moving forward

We will consider expanding the scope of application for the analysis results.

Engagements with the public sector

Current status

We collaborate with a wide range of stakeholders, including governments, public institutions, standard-setting organizations, industry associations, related organizations, NGOs/NPOs, and academia, to help maintain and enhance the foundations of business activities, including the climate and nature. Additionally, we serve as committee members in various meetings hosted by public institutions, providing effective input as an institutional investor at the early stages of policymaking. We also collaborate with other institutional investors to make proposals to public institutions. Specific examples of our initiatives are as follows:

- Participation in government-hosted study groups, such as the Study group on developing corporate-level information disclosure schemes related to resource circulation (organized by the Ministry of the Environment).
- Expression of support for the investor statement compiled by “The Investor Agenda,” which calls on governments to implement policies for achieving net zero in conjunction with UNFCCC COP29.
- Submission of our opinions during public consultations conducted by the Sustainability Standards Board of Japan (SSBJ), TNFD, and other organizations.
- Expression of support for an investor statement compiled by Rainforest Foundation Norway, the forest conservation NGO, in conjunction with UNFCCC COP30. The statement calls on the governments of tropical rainforest nations and countries that import goods at risk of deforestation to take policy actions to protect and restore the world’s tropical rainforests.

Moving forward

We will utilize the results of our analysis to further contribute to the formulation and implementation of policies, as well as the development of standards and guidelines.

Proxy voting

Current status

We have established the following proxy voting guidelines regarding sustainability issues:

- In cases where we have identified key sustainability issues with investee companies and have engaged continuously, yet no improvement is observed without any particular reason, we will consider opposing the appointment of the representative director.
- Regarding shareholder proposals to amend the articles of incorporation on climate change, natural capital, human rights, and other critical sustainability issues, we will generally vote in favor when the proposals reflect international social norms or societal demands, both now and in the future. Meanwhile, we may oppose proposals that clearly impair shareholder value over the medium- to long-term, as well as those deemed substantially similar in intent to proposals submitted in prior years, provided the company has publicly demonstrated reasonable efforts to address the prior-year proposals.

Moving forward

We will utilize the analysis results in this report to set themes with investee companies and assess their progress, while ensuring proper application of our proxy voting guidelines. Furthermore, in future revisions to the guidelines, we will incorporate the results of our proxy voting on proposals related to the significant climate/nature-related risks and opportunities identified in this analysis, as well as the status of initiatives undertaken by investee companies that formed the basis for our decisions, into the revisions as necessary.

Impact Investment

Current status

We manage a Global Impact Investment Fund (Climate Change) with the intention of achieving “a sustainable world where no one suffers loss of life or health due to climate change and its impacts.” The fund identifies and invests in key solution areas that advance its intention from the perspectives of climate change mitigation and adaptation. Addressing water and food issues is identified as a priority for climate change adaptation; not only does it tackle climate change, but it also helps solve challenges related to natural capital.
The fund regularly publishes impact reports; in fiscal year 2023, it is estimated that the business activities of investee companies contributed to the reduction of approximately 321.41 million metric tons of GHG emissions. We will continue to strive to create an even greater impact in the future.

Moving forward

We believe that the key solution areas identified by the fund are capable of addressing the climate/nature-related risks extracted in our analysis in this report. We will strive to identify companies that can provide effective solutions to these risks and their growth opportunities, thereby aiming to create further impact. We will also utilize the results to support investee companies in managing their climate/nature-related risks.

1 In-house engagement

Sustainable palm oil procurement (P32)

- Company A, a daily necessities enterprise, uses palm oil as a raw material in some of its products, and this product line is a growth area for the company.
- Company A joined the RSPO (Roundtable on Sustainable Palm Oil) in 2020, set targets for the procurement of sustainable palm oil in 2022, and is working to achieve them.

©WWF Japan

Engagement: Items/Content/Effects

Item 1

Purchase of RSPO-certified oil; disclosure of targets and results for the procurement of certified palm oil

Company A had been pursuing its RSPO-certified oil procurement efforts by purchasing RSPO-certified oil credits (a method that does not involve the physical handling of certified oil). In this regard, we have requested Company A to proceed with sustainable procurement using a method that involves the physical handling of certified oil.

Result
- Company A is working to achieve the goals it set in 2022 by pursuing initiatives aimed at realizing sustainable procurement through methods that involve the physical handling of certified oil, such as working toward obtaining SC Certification (which certifies that a supply chain site meets the requirements established by the RSPO) at its palm oil-related product manufacturing sites. Company A plans to obtain SC Certification for all targeted facilities by the end of 2025.

Item 2

Disclosure of a procurement policy regarding palm oil, and the inclusion of “No Deforestation, No Peat, No Exploitation” (NDPE) in the procurement policy

We informed Company A of the importance of establishing a procurement policy regarding palm oil and requested their support for the NDPE principles.

Result
- Company A has established a “Sustainable Palm Oil Procurement Policy” and has declared its support for the NDPE principles within it.

2 Collaborative Engagement

Climate Action 100+ (P32)

- CA100+ is a collaborative engagement initiative designed to support companies in addressing climate change. The initiative targets 169 high-market-capitalization companies operating in sectors with high global GHG emissions, calling on them to set short-, medium-, and long-term GHG emissions reduction targets; develop transition plans to achieve those targets; and strengthen climate-related governance.

Engagement: Items/Content/Effects

Item

Climate Policy Engagement, Climate Governance, and Just Transition

We conducted engagement regarding the company's climate-related initiatives concerning Climate Policy Engagement, Climate Governance, and Just Transition—all of which are included as assessment criteria in the Net Zero Company Benchmark Assessment (a tool for evaluating alignment with the Paris Agreement and the 2050 net-zero target).

Result

- We confirmed that the company will focus on the Short-Term GHG Reduction Targets, Climate Policy Engagement, and Just Transition categories of the Net Zero Company Benchmark Assessment that have not yet been addressed, and that it will work to improve its disclosure practices.
- We have confirmed that the company is advancing the shift to electric vehicles in the small mobility sector.
- The company confirmed that it intends to comply with the "SBTi Automotive Sector Net-Zero Standard" as much as possible and aims to obtain certification, as the Science Based Targets initiative (SBTi), which supports and certifies the setting of GHG reduction targets aligned with scientific evidence, is currently developing these new standards specifically for the automotive industry.

Awarded the "Nature Target Setting Leadership Award" from the Finance for Biodiversity (FfB) Foundation.

The FfB Foundation is an organization dedicated to advancing the Finance for Biodiversity (FfB) Pledge, an initiative by financial institutions committed to protecting and restoring biodiversity through finance.
The "Nature Target Setting Leadership Award" that we received this time is one of the category awards under the "FfB Members Progress Awards 2025," which evaluates progress toward achieving the five commitments of the FfB Pledge (Collaboration and knowledge sharing, Engaging with companies, Assessing impact, Setting targets, and Reporting publicly) and specifically recognizes excellence in setting and publishing measurable biodiversity targets aligned with the goals of the TNFD and GBF.

Transparent initiatives, such as setting and disclosing targets for key nature-related sectors and reporting progress annually (P52–54), were highly commended.

Overview of our efforts to address human rights issues

Climate change, the loss of natural capital and biodiversity, and human rights issues are deeply interconnected. It has been recognized internationally that these issues must be addressed in an integrated manner. In September 2024, the Taskforce on Inequality and Social-related Financial Disclosures (TISFD) was officially established by several organizations, including PRI, ILO, OECD, and UNDP, marking progress in the development of disclosure frameworks. This reflects a growing international trend toward requiring the disclosure of social-related financial information, including human rights issues. In response, we have established "Our Policy on Human Rights Issues Related to Investment Management" to clarify our fundamental approaches to human rights challenges. Guided by this policy, we are advancing initiatives across the company. This section provides an overview of our efforts to address human rights issues.

Summary of Our Policy on Human Rights Issues Related to Investment Management

1. Our Commitment

- Given that addressing human rights issues is essential for achieving our purpose and "Desirable future," we contribute to the challenge through investment management.

2. Human rights-related risks and opportunities

- While human rights issues can pose various risks to investee companies (such as business suspensions), managing adverse impacts on human rights can also create opportunities (such as attracting new customers and talent through an enhanced brand image). We assess these human rights-related risks and opportunities.

3. Governance

- The Board of Directors regularly receives a report on the status of our efforts to manage adverse human rights impacts and oversees the report.

4. Our Approach

- Identify sectors and areas where business activities are relatively likely to have adverse human rights impacts.
- Identify adverse human rights impacts associated with their activities through engagement, proxy voting, and other stewardship activities. Encourage investee companies to prevent, mitigate, and remedy the identified adverse impacts.
- Support investee companies in establishing access to grievance mechanisms.

5. Dialogue with Stakeholders

- Actively engage in dialogue with diverse stakeholders, including market participants, NGOs, and public agencies.

6. Disclosures

- Disclose our efforts and progress in addressing human rights issues in our reports.

Engagement

(Related items in the policy: 2. Human rights-related risks and opportunities; 4. Our approach)

In-house engagements

For encouraging investee companies to prevent and mitigate adverse human rights impacts related to their business activities, we conduct the following in-house engagement initiatives:

i Engagement on child and forced labor

Among human rights issues, "child and forced labor" represents a part of our "Materiality for Responsible Investment." Regarding the issues, we have conducted research and have identified industrial sectors with relatively high potential for negative human rights impacts: "metals and mining," "food and beverages," and "apparel and footwear." We have also specified high-risk raw materials and their sourcing regions, as well as specific measures that investee companies should be requested to implement. Based on these results, we engage with major domestic investee companies in the sectors above, in line with the "UN Guiding Principles on Business and Human Rights"; we request these companies to establish human rights policies, conduct human rights due diligence, and develop grievance mechanisms.

ii Engagement on sustainable palm oil procurement and production

We have engaged with major domestic investee companies in the palm oil supply chain, as well as major Southeast Asian investee companies that produce palm oil. Our requests include transitioning to RSPO-certified* raw materials, establishing palm oil procurement policies that incorporate NDPE (No Deforestation, No Peat, No Exploitation) principles, and respecting workers' human rights throughout the supply chain.

* RSPO certification includes criteria such as respect for the human rights of local communities and residents, as well as respect for workers' rights and working conditions.

Overview of our efforts to address human rights issues

Collaborative Engagement

We actively participate in the following collaborative engagements related to human rights:

i PRI advance

This collaborative initiative aims to advance progress on human rights issues. The initiative engages with 40 global companies in the metal mining and RE sectors, urging them to integrate the "UN Guiding Principles on Business and Human Rights" into their operations and to deepen their efforts to address severe human rights issues across their activities and entire value chains.

ii Apparel & Footwear Engagement using the KnowTheChain Benchmarks

This collaborative initiative uses resources from KnowTheChain, an international organization that offers tools for companies and investors to understand and address forced labor risks in supply chains, to resolve forced labor issues in the apparel and footwear sectors. The initiative engages with 27 companies in these sectors, urging them to: (i) Operate more transparent and responsible supply chains, and (ii) Eradicate forced labor.

ESG integration (Related items in the policy: 2. Human rights-related risks and opportunities, 4. Our approach)

Resona ESG Ratings

Our in-house corporate rating, "Resona ESG Ratings," is used for ESG integration; for example, assigning the ratings to our investee companies and excluding those that fall below a specified level from the investable universe. The evaluation criteria include human rights-related items: (i) Efforts to prevent child labor, and (ii) Management of social risks in supply chains.

Other external activities (Related item in the policy: 5. Stakeholder engagement)

Participation in the ILO's "Working Group for Developing Awareness Raising Materials on Business and Human Rights for Institutional Investors"

In October 2023, the ILO (International Labour Organization) and PRI launched a working group to develop awareness-raising materials on business and human rights for institutional investors. The working group published "A Guide to 'Business and Human Rights' for Institutional Investors - What, Why and How to Address Human Rights through Investment Practices" as its outcome in May 2024. As a signatory to the PRI, we participated in this working group and actively engaged in discussions and contributed to the development of the guide alongside other members.

* For "A Guide to 'Business and Human Rights' for Institutional Investors - What, Why and How to Address Human Rights through Investment Practices," please refer to the following URL:
https://www.ilo.org/sites/default/files/2024-05/ILO_Book_0524_0.pdf

Participation in JaCER (Japan Center for Engagement and Remedy on Business and Human Rights)

JaCER is an organization that provides a non-judicial grievance platform in line with the "UNGPs" (UN Guiding Principles on Business and Human Rights). It aims to support and promote professional grievance handling within member companies. We are a supporting member of JaCER. In September 2024, our Chief Sustainability Officer (CSuO), Minoru Matsubara, joined a panel discussion at JaCER's "Practical Training on Engagement and Remedy," themed "Business and Human Rights Access to Redress from an ESG Perspective." He engaged in lively discussions with various stakeholders about the future direction companies should pursue.

Public engagements

We are actively building momentum by participating in government task forces and other initiatives. In 2024, we organized a seminar on "Business and Human Rights" as chair of the working group for the Principles for Financial Action for the 21st Century (an initiative of financial institutions committed to fulfilling their responsibilities and roles in building a sustainable society, established in response to a recommendation from the Central Environment Council). In fiscal year 2025, we continued to serve as members of several study groups on supply chain due diligence and related areas. Additionally, we served as members of the Expert Committee for the Sustainable Expo of the 2025 Japan International Exposition, providing expert opinions and proposals on matters requiring sustainability-focused consideration (such as ensuring the Expo is operated in a manner consistent with the UN Guiding Principles on Business and Human Rights).

4 Transition plan for achieving net-zero and a world in harmony with nature

We established “Our Policy on Climate” and “Our Policy on Nature” in 2023 through discussions at the board meeting, taking these issues as material management issues. In these policies, we have committed to the following strategic objectives: “We support the objectives of the Paris Agreement and aim to achieve net-zero GHG emissions across scope 1, 2 and scope 3 category 15 (our financed emissions) by 2050, and contribute to the global efforts to combat climate change through our investment activities.” “We support the 2050 Vision and the 2030 mission which the Kunming-Montreal Global Biodiversity Framework sets out, and contribute to the global efforts to arrest the loss of natural capital and biodiversity through our investment activities.”

We believe that efforts to reduce GHG emissions and minimize negative impacts on nature are critically important from two perspectives: addressing climate/nature-related transition risks associated with increased carbon costs for investee companies; and responding to system-level risks that may arise from the cumulative GHG emissions and negative impacts on nature, which could undermine the long-term health and stability of environmental systems. Based on this perspective, we will continue to focus on key industrial sectors critical to reducing GHG emissions and minimizing negative impacts on nature. Through engagements and proxy voting, we will request the establishment of climate/nature-related goals, as well as the disclosure and implementation of credible transition plans to achieve these goals. We will further advance efforts to reduce our own GHG emissions in the meantime.

GFANZ (Glasgow Financial Alliance for Net Zero), TPT (Transition Plan Taskforce), and TNFD define transition plans in their guidance and discussion papers. A transition plan is an organization’s overarching strategy that outlines the actions to achieve its committed climate- and nature-related objectives, along with accountability mechanisms. They also list the elements that should be included in the transition plan. We have organized our transition plan to achieve the aforementioned strategic ambition by referencing these guidelines and discussion papers.

● Overview of our initiatives toward achieving a net-zero and nature-positive world

● Transition plan components and our response

	Our response	Reference(s)
Foundation	**■ Strategic Ambition** Following discussions at the Executive Committee that identified these as critical management priorities, we have established and publicly announced the “Policy on Climate” and “Policy on Nature.” In these policies, we recognize climate change and the loss of natural capital as two of the most critical issues in our responsible investment activities. With regard to each of these issues, we have committed to the following strategic objectives: “We support the objectives of the Paris Agreement and aim to achieve net-zero GHG emissions across scope 1, 2 and scope 3 category 15 (our financed emissions) by 2050, and contribute to the global efforts to combat climate change through our investment activities.” “We support the 2050 Vision and the 2030 mission which the Kunming-Montreal Global Biodiversity Framework sets out, and contribute to the global efforts to arrest the loss of natural capital and biodiversity through our investment activities.”	P4
	■ Basic Policy Through responsible investment activities, we are collaborating with investee companies, public agencies, and other stakeholders to reduce impacts on the climate and nature. We will continue and intensify these efforts going forward. Guided by the concept of the “Universal Owner,” we aim to reduce impacts on the climate and nature across society. In addressing the loss of natural capital, we will align with “Transition Strategies toward Nature Positive Economy” (March 2024) and other frameworks, mindful of the “Mitigation Hierarchy.” Given the deep interconnections between climate change, the loss of natural capital and biodiversity, and human rights issues, we recognize the importance of addressing these challenges with holistic approaches.	P4
	■ Priority Finance Strategies 1. Climate In alignment with the four finance strategies outlined in the transition plan guidance provided by GFANZ (Glasgow Financial Alliance for Net Zero), we will comprehensively engage in the following activities: ● Climate solutions: Managing impact investment funds, investing in SDG bonds ● Aligned: Managing impact investment funds, investing in SDG bonds ● Aligning: Engagement and proxy voting ● Managed phaseout: Engagement and proxy voting 2. Nature We will comprehensively engage in the following activities: ● Managing Impact Investment Fund ● Investing in SDG bonds ● Engagement ● Proxy voting	P31-34
	■ Scope and Priority Areas (nature only) This transition plan focuses on the “impacts on nature related to investments within the downstream value chain,” which is of critical importance given the characteristics of our business. We will advance our plans and initiatives by focusing on key industrial sectors (P19) selected for the magnitude of their impact on climate and nature, as well as the scale of our exposure; these sectors represent areas where we aim to enhance our efforts.	P6,19-30

	Our response	Reference(s)
	■ Products and Services We are strengthening stewardship activities, focusing on investee companies within priority industrial sectors identified based on the magnitude of their impacts on climate and nature and the scale of our exposure. We actively request these companies to implement measures that reduce their impacts on climate and nature; we will continue to enhance these efforts going forward. To support the initiatives of investee companies, we have introduced an escalation clause into our Proxy Voting Guideline; in cases we have identified key sustainability issues (including climate/nature-related issues) with investee companies and have engaged continuously, yet no improvement is observed without any particular reason, we will consider opposing the appointment of the representative director. We manage the "Global Impact Investment Fund (Climate Change)" with the intention of "achieving a sustainable world where climate change and its effects do not pose a threat to anybody's life or health." We select and invest in companies expected to create social impact while sustainably enhancing corporate value by addressing climate change mitigation and water and food security issues as business initiatives. We manage equity index funds that track the MSCI Japan ESG Select Leaders Index (dividend-inclusive) and the MSCI-KOKUSAI ESG Leaders Index (dividend-inclusive, yen-converted) (an index that evaluates companies' exposure to and management of ESG-related risks, including climate and nature, and selects constituents based on their scores), and the MSCI World Climate Change Index (dividend-inclusive, yen-converted) (an index that comprehensively measures the exposure and management capabilities of evaluated companies regarding risks and opportunities associated with the transition to a low-carbon society, and selects constituents based on these scores), as well as SDG bond funds that invest in bonds designated for addressing sustainability issues related to climate and nature.	P34
Implementation Strategy	**■ Policy and Conditions** Our in-house "Resona ESG Evaluation" includes climate/nature-related criteria such as "GHG emissions," "GHG emissions per unit of energy consumed," "total water usage," and "water recycling rates." Companies that fall below the prescribed standards in the "Resona ESG Evaluation" are excluded from our investable universe. In engagement with companies in high GHG emission sectors, we request actions such as: (i) Setting medium-term GHG emission reduction targets; and (ii) Disclosing plans and reduction achievements to meet the targets. We aim for 100% of target companies to achieve these by2030. Simultaneously, in engagement on sustainable palm oil procurement, we request: (i) Disclosure of procurement targets and achievements for RSPO certified palm oil, and (ii) Establishment of palm oil procurement policies incorporating NDPE. For this as well, we aim for 100% of target companies to achieve the requested goals by 2030. Given the urgent need for these target companies, particularly those with severe impacts on climate and nature requiring immediate action, we have added the following policy to our Proxy Voting Guideline: In cases where we have identified key sustainability issues with investee companies and have engaged continuously, yet no improvement is observed without any particular reason, we will consider opposing the appointment of the representative director. We have incorporated policies for responding to climate/nature-related shareholder proposals into the guideline as well.	P31,32,34, 45-54
	■ Operational Management To enhance our capacity for responsible investment activities, including the transition to a net-zero and nature-positive world, we are expanding the structure of our Responsible Investment Division as the lead and will continue to do so. Furthermore, we implement the "Advanced ESG Human Resource Development Plan" to cultivate foundational capabilities among younger employees for addressing sustainability challenges, including the aforementioned transition.	—

	Our response	Reference(s)
Engagement Strategy	**■ Engagement with investee companies** We are strengthening stewardship activities, focusing on investee companies within priority industrial sectors identified based on the magnitude of their impacts on climate and nature and the scale of our exposure. We actively request these companies to implement measures that reduce their impacts on climate and nature; we will continue to enhance these efforts going forward. In engagement with companies in high GHG emission sectors, we request actions such as: (i) Setting medium-term GHG emission reduction targets; and (ii) Disclosing plans and reduction achievements to meet the targets. We aim for 100% of target companies to achieve these by 2030. Simultaneously, in engagement on sustainable palm oil procurement, we request: (i) Disclosure of procurement targets and achievements for RSPO-certified palm oil; and (ii) Establishment of palm oil procurement policies incorporating NDPE. We aim for 100% of target companies to achieve the requested goals by 2030. To support the initiatives of investee companies, we have introduced an escalation clause into our Proxy Voting Guideline; in cases we have identified key sustainability issues (including climate/nature-related issues) with investee companies and have engaged continuously, yet no improvement is observed without any particular reason, we will consider opposing the appointment of the representative director.	P32-34, 45-54
	■ Engagement collaborating with peer companies We actively participate in collaborative engagement platforms that lead to more effective and efficient engagement; in doing so, we consider the theme's urgency and necessity, as well as the initiative's broad impact. Specific examples include "Climate Action 100+" and "AIGCC (Asia Investor Group on Climate Change)" for climate-related initiatives, and "Nature Action100," "PRI SPRING," and "Finance for Biodiversity Pledge/Foundation" for nature-related initiatives. Through these platforms, we collaborate with peer companies to share insights and exchange views on the transition to a net-zero, nature-positive world. Moving forward, we will continue to actively participate in such platforms and leverage the knowledge and information gained through collaboration to enhance the effectiveness and efficiency of our engagement activities.	P31
	■ Engagements with the public sector We conduct public engagement (including proposals and public statements) with public agencies and related organizations to contribute to the maintenance and enhancement of the foundations of business activities, including the climate and nature. Examples of our activities include: (i) Expressing support for the investor statement compiled by "The Investor Agenda," which calls on governments to implement policies for achieving net zero in conjunction with UNFCCC COP29; and (ii) Participating in the Ministry of the Environment's "Committee on the Revision of Guidelines for Private Sector Engagement in Biodiversity." We will continue dedicating our efforts to such activities.	P11,33
	■ Stakeholder engagement with indigenous peoples (nature only) At present, we have not conducted analyses of specific regions related to the direct operations or value chains of individual investee companies. Consequently, find it challenging to engage in direct discussions with indigenous peoples and other related stakeholders in these areas. To complement this, however, we hold discussions with NGOs and NPOs approximately once every two to three months. The meetings feature reports on our engagement in procuring sustainable palm oil, as well as discussions of the latest trends in sustainability. We incorporate the feedback and insights gained into our responsible investment activities.	P10-11
Metrics and Targets	Both encouraging changes in investee companies' behavior through stewardship activities and generating positive impacts on society as a whole through these behavioral changes are critically important; based on this approach, we have established the following metrics and targets to manage the progress of our transition plan:	

	Our response	Reference(s)
Metrics and Targets	**Metrics and targets for the implementation of the transition plan** ● Percentage of in-house engagement target companies that meet certain conditions for net-zero transition Target: 100% by 2030 ● Percentage of in-house engagement target companies that meet specific conditions related to sustainable palm oil procurement Target: 100% by 2030 ● Percentage of in-house engagement target companies that meet specific conditions related to sustainable paper and timber procurement Target: 100% by 2030 Additionally, in sectors where we should particularly strengthen our climate/nature-related initiatives, we will consider setting metrics and targets, such as engagement coverage rates, going forward.	P45-54
	Metrics and targets for climate/nature-related investment amounts For the reasons outlined in P43-44 and P50-51, we have not set specific metrics and targets.	—
	Metrics and targets for climate/nature-related impacts ● GHG emissions from investee companies Target: Net zero by 2050 ● (Weighted average carbon intensity) We have not established specific metrics or targets related to nature-related impacts for the reasons outlined on pages 52-53; these will be considered in the future based on the availability of data and analytical methodologies.	P47-50
Governance	**■ Roles and compensation of the Board of Directors and executive management** The Board of Directors oversees initiatives related to sustainability challenges, including the transition to a net-zero and nature-positive world. The President is responsible for overseeing progress in the sustainability initiatives and making decisions on their key operational matters. "Our Policy on Climate" and "Our Policy on Nature," which include climate/nature-related strategic ambition (see the "Foundation" section), were established following discussions at the Executive Committee as critical management priorities and reported to the Board of Directors. Progress on initiatives based on these policies, including the transition plan, shall be reported to the Board of Directors once a year. Changes in ESG scores from major ESG rating agencies are reflected in the medium-to-long-term incentive component (performance-linked stock compensation) of the management executives' compensation structure.	P8-10
	■ Corporate culture Among the key issues we must address to realize our purpose "to ensure a prosperous and happy life for future generations as well as our customers," climate change and the loss of natural capital and biodiversity are recognized as one of the most critical challenges; these are included in our "Materiality for Responsible Investment." On this basis, and in line with the President's commitment to addressing these challenges, we are actively advancing company-wide efforts to tackle them. We hold weekly "Responsible Investment Meetings" open to all employees, including the President and executive management, to promote cross-departmental collaboration. Participants share the latest information and engage in discussions on sustainability issues, including transition-related topics.	P1-2
	■ Skills Through weekly "Responsible Investment Meetings," we are building expertise among all employees, including the President and executive management, on sustainability issues such as the transition to a net-zero, nature-positive world. We also implement the "Advanced ESG Human Resource Development Plan," targeted at younger employees, to foster specialized expertise in sustainability issues and cultivate general skills such as leadership and communication.	—

* The components of the transition plan in this table have been arranged with reference to "Financial Institution Net-zero Transition Plans" published by the GFANZ and other guidance.

Risk and Impact Management

We categorize risks to manage into credit risk, market risk, liquidity risk, operational risk (including legal/compliance risk), reputational risk, and the risk of losses in assets in trust.
We consider climate/nature-related risks as “risk drivers” that may amplify the categorized risks through various pathways. Given our role as an asset manager, we place particular importance on managing the risk of losses in assets in trust as climate/nature-related risks materialize; this includes managing system-level risks that may arise from the accumulation of investees’ negative impacts on climate and nature. Accordingly, the following “Basic Approach to the Identification, Assessment, and Management of Climate and Nature-related Risks” was established in October 2023 following discussions at the Executive Committee and the Compliance and Risk Management Committee.

● Basic Approach to the Identification, Assessment, and Management of Climate/Nature-related Risks”

❶ Identify, assess, and manage climate/nature-related risks integrated with other risks under our overall risk management system (see table below).

Compliance and Risk Management Committee	Conduct discussions on risk management policies to promote and improve overall risk management initiatives to an adequate level, while holding briefing sessions and discussions on recurrence prevention measures.
The President	Define key matters for implementing risk management initiatives and manage their status.
Board of Directors	Establish risk management policies and framework, and oversee the implementation of risk management initiatives.

❷ Operate a company-wide PDCA cycle for identifying, assessing, and managing climate/ nature-related risks; this includes the analysis of those risks by responsible investment- related departments, reporting and discussions on the analysis result at the Compliance and Risk Management Committee, and implementing necessary actions (e.g., improving engagement methods) based on these.

As stated in the “Strategy” chapter, we identify, assess, and prioritize significant climate/ nature-related risks in our investee companies through the following process: This process has not changed since the previous version of this report was released.

❶ Define the scope of industry sectors we should focus on, considering the magnitude of our exposure, the negative impacts on climate and nature, and general assessments of the financial implications of climate/ nature-related risks and opportunities.

❷ Evaluate and prioritize climate/nature-related risks using scenario analysis to identify significant risks.

To ensure the propriety of this process and its outcomes, we conduct monitoring in accordance with the aforementioned “Basic Approach to the Identification, Assessment, and Management of Climate and Nature-Related Risks.” We have taken the necessary measures in response to comments made at the February 2025 Compliance and Risk Management Committee meeting, including the suggestion that “we should establish a basic approach regarding the frequency of reviews for risk identification and assessment.”
To manage the risk of trust assets suffering losses as climate/nature-related risks materialize, we appropriately utilize engagement and proxy voting (see P12-43). In this way, we collaborate with investee companies to reduce negative impacts on climate and nature and mitigate climate/nature-related risks, and we will continue to advance these initiatives.
We will continue to enhance these efforts and monitor progress using appropriate metrics (see the “Metrics and Targets” chapter).

Metrics and Targets

1 Climate-related Metrics and Targets

As described in the “Strategy” chapter, we believe that climate-related risks and opportunities (including system-level risks that may arise when GHG emissions impair the integrity of environmental systems) could significantly impact the medium- to long-term value of the trust assets we manage and thus require our management.
To manage climate-related risks and opportunities, we must both encourage behavioral changes in investee companies through stewardship activities and realize real-world impacts (i.e., GHG reductions) through these changes.
From this perspective, we have established three categories of metrics for our stewardship activities: “metrics related to our engagement activities,” “metrics related to behavioral changes at investee companies,” and “metrics related to the impacts on climate.” We use these metrics to evaluate and manage the effectiveness of our activities.
We have also established metrics for GHG emissions related to our direct operations. The overall framework of metrics and targets for assessing and managing climate-related risks and opportunities is as follows.

Value Chain Classification	Metrics classification		Metrics	Targets (If set)
Investee companies	(1) Metrics related to our engagement activities		Number of companies with which we conducted engagement activities on climate change	-
	(2) Metrics related to behavioral changes at investee companies		Percentage of in-house engagement target companies that meet certain conditions for transition to net zero	100% by 2030
			Number of companies disclosing avoided emissions	-
			Percentage of in-house engagement target companies that meet specific conditions related to sustainable palm oil procurement	100% by 2030
	(3) Metrics related to the impacts on climate	1 Metrics related to the impacts of equity and corporate bond investments	Financed emissions	Net zero by 2050
			(Weighted average carbon intensity)	-
			Consistency between the Sustainable Development Scenario (SDS) and our portfolio	-
		2 Metrics related to the impacts of government bond investments	Financed emissions	-
			Emission intensity (Carbon intensity)	-
Resona Asset Management	(4) Metrics related to direct operations		GHG emissions in our direct operations (Scope1 and 2)	Net zero by 2030

The Sustainability Disclosure Standards published by the Sustainability Standards Board of Japan (SSBJ) require disclosure of metrics related to climate-related risks and opportunities, specifically: “the amount and percentage of assets or business activities vulnerable to climate-related transition/physical risks” and “the amount and percentage of assets or business activities aligned with climate-related opportunities.” Meanwhile, we have not adopted these metrics for the following reasons:
We manage the majority of our portfolio as passive investments based on mandates from asset owners. For assets under passive management, our discretion in selecting investee companies or determining allocation ratios is extremely limited. Therefore, if we were to adopt the aforementioned SSBJ metrics, the means to directly and immediately improve those figures would be extremely restricted.

Additionally, even if we were able to engage in so-called divestment to reduce “the amount and percentage of assets or business activities vulnerable to climate-related transition/physical risks,” such measures would not, in our view, reduce GHG emissions in the real world nor mitigate system-level risks.
Moving forward, based on the analysis results in the “Strategy” chapter, we plan to continuously review our metrics and targets to enhance the assessment and management of climate-related risks and opportunities.

(1) Metrics related to our engagement activities

Number of companies with which we conducted engagement activities on climate change

We proactively address climate change as a key theme in our engagements. Number of companies with which we conducted engagement activities on climate change in FY 2024 (2024/7 to 2025/6) is as follows.

	FY 2022 (2022/7 to 2023/6)	FY 2023 (2023/7 to 2024/6)	FY 2024 (2024/7 to 2025/6)
Number of companies	231 companies (55.5%)	223 companies (56.5%)	182 companies (41.36%)
those with whom executive management-level engagement activities are conducted	115 companies (27.6%)	140 companies (35.4%)	95 companies (34.54%)

*(%): percentage of companies with which we conducted engagement activities on climate change

Number of companies with which we conducted engagement activities on climate change decreased slightly compared with the same period the previous year One reason for this is likely that, as awareness of climate change mitigation has generally increased among investee companies and certain measures have been implemented, the need for engagement on this issue has temporarily subsided. Meanwhile, the percentage of companies that engaged with management on climate change remained at approximately 35%, the same level as the same period the previous year, indicating that climate change remains a highly important issue for investee companies.
Furthermore, for the industrial sectors identified in the “Strategy” chapter where we should particularly strengthen climate-related initiatives, we will consider setting metrics and targets such as engagement coverage rates in the future.

(2) Metrics related to behavioral changes at investee companies

Percentage of in-house engagement target companies that meet certain conditions for transition to net zero

For engagement with companies in high GHG emission sectors (refer to P32), we have set the percentage of companies achieving the following as the metrics: (i) Setting medium-term GHG emissions reduction targets; (ii) Disclosing plans and reduction achievements to meet medium-term targets; (iii) Introducing a “compensation system linked to the progress in climate change countermeasures” as part of climate-related governance. The performance results are as follows.

	FY 2023 (2023/7 to 2024/6)	FY 2024 (2024/7 to 2025/6)
The percentage of companies that meet (i), (ii), and (iii)	0.0% (0 out of 10 companies)	0.0% (0 out of 10 companies)

Although no engagement target companies have yet achieved all three metrics (i), (ii), and (iii), we have confirmed through our engagement activities that steady progress is being made toward achieving them.

Number of companies disclosing avoided emissions

For engagement related to avoided emissions (refer to P32), we have established the metric “Number of companies disclosing their avoided emissions and calculation methodologies.” Please note that this engagement began in July 2024.

	FY 2024 (2024/7 to 2025/6)
Number of companies disclosing avoided emissions and calculation methodologies	6.7% (1 out of 15 companies)

Percentage of in-house engagement target companies that meet specific conditions related to sustainable palm oil procurement

For engagement related to sustainable palm oil procurement (refer to P32), we have set the percentage of companies achieving the following as the metrics: (i) Disclosure of procurement targets and achievements for RSPO-certified palm oil, and (ii) Establishment of palm oil procurement policies incorporating NDPE (No Deforestation, No Peatland Development, No Exploitation). The performance results are as follows.

	FY 2022 (2022/7 to 2023/6)	FY 2023 (2023/7 to 2024/6)	FY 2024 (2024/7 to 2025/6)
The percentage of companies that meet (i) and (ii)	22.7%(15 out of 66 companies)	32.1% (18 out of 56 companies)	33.9% (19 out of 56 companies)

At UNFCCC COP26, the Glasgow Leaders' Declaration on Forests and Land Use was announced as a joint declaration on collaboration to halt and reverse forest loss and land degradation by 2030; taking this into account, we aim to achieve 100% of the aforementioned ratio by 2030.
Please note that we conduct this engagement as a contribution to addressing both climate change and natural capital challenges.

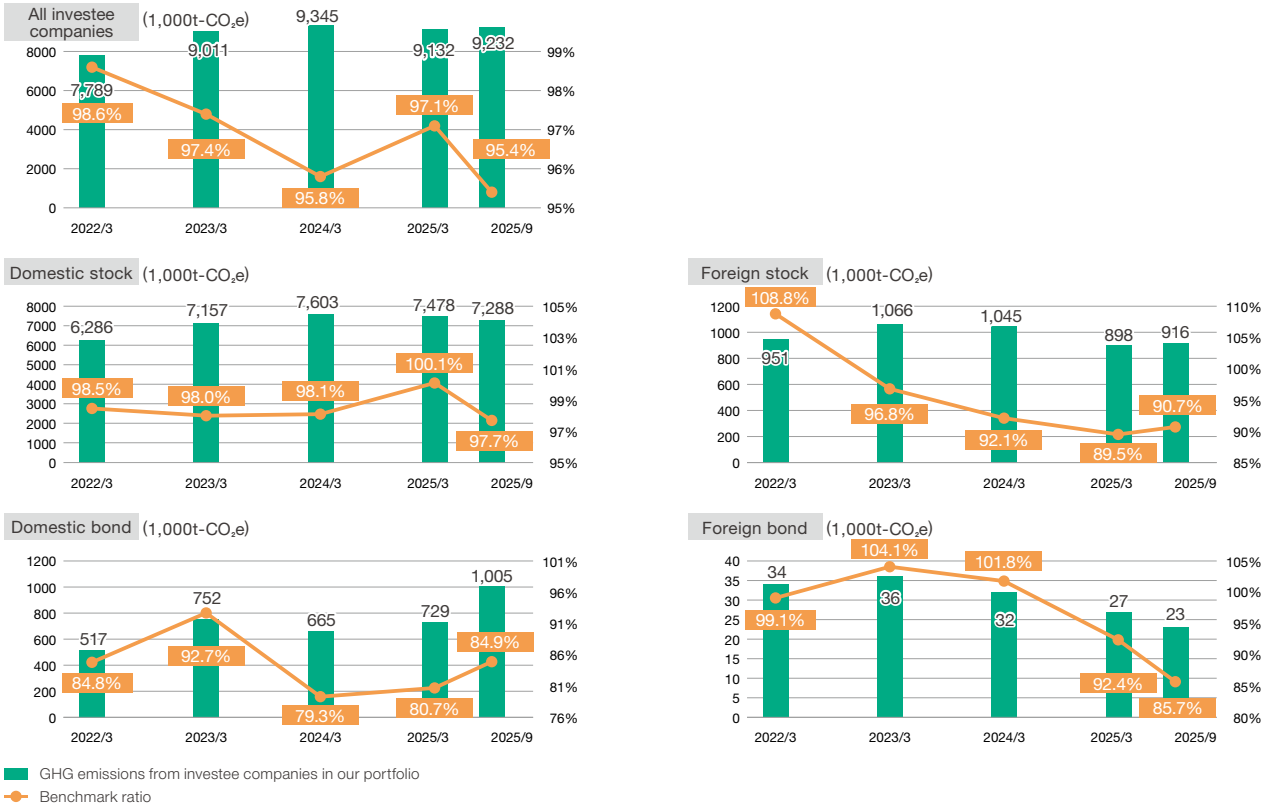
(3) Metrics related to the impacts on climate

We have calculated the GHG emissions associated with equity, corporate bond, and sovereign bond investments within our managed assets. As of the end of September 2025, approximately 90% of our total managed assets, amounting to around 56 trillion yen out of 58 trillion yen, are included in the calculation.
Please note that assets other than equity, corporate bonds, and sovereign bonds are excluded from the calculation due to challenges in obtaining GHG emission data from issuers and the lack of established calculation methodologies.

(3)-1 Metrics related to the impacts of equity and corporate bond investments

The size of our portfolio is continually growing, creating upward pressure on this metric. Under the circumstances, we are actively encouraging investee companies to achieve GHG emissions reductions relative to the benchmark through engagement and proxy voting; we focus in particular on domestic equities, which account for a large proportion of the metric. Compared with the beginning of the measurement period, this metric shows an upward trend across most assets, particularly in domestic equities. We will continue these efforts given that reducing the absolute amount of financed emissions will become increasingly important in the future.

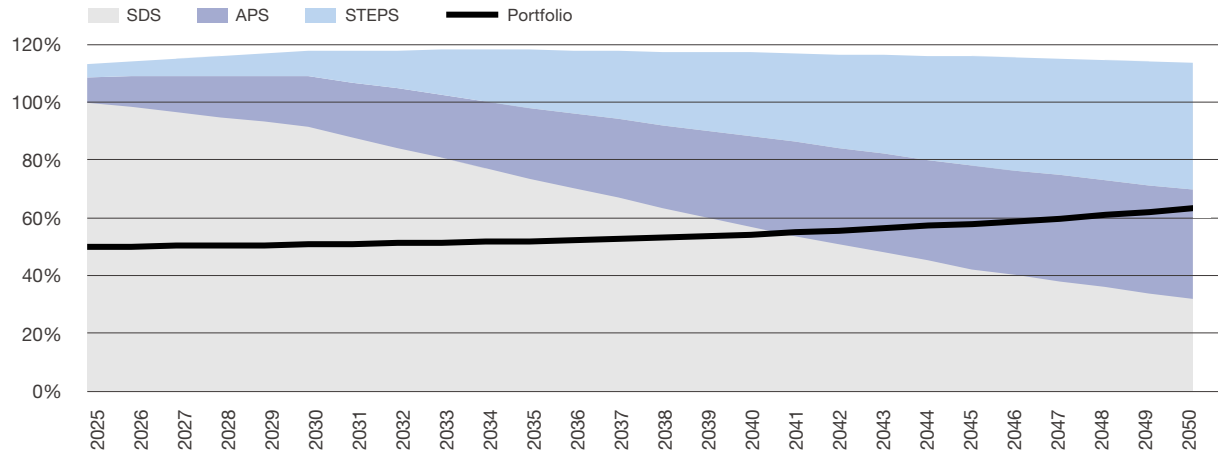
Financed emissions*1



(Weighted average carbon intensity)*2

This metric shows an overall improvement trend across all investee companies and asset classes, and remains below the benchmark.

Consistency between the Sustainable Development Scenario (SDS) and our portfolio



	As of March 2022	As of March 2023	As of March 2024	As of March 2025	As of September 2025
Year to reach SDS-allowable GHG emissions (expected)	2041	2043	2043	2042	2041
Temperature rise by 2050 (expected)	2.0° C	1.9° C	1.9° C	1.9° C	2.0° C

Using the analysis tool of Institutional Shareholder Services (ISS), we compare the amount of our financed emissions (Scope 3 Category 15) with the amount of GHG emissions permitted by SDS (Sustainable Development Scenario: a scenario aligned with the Paris Agreement's goal to "hold the increase in the global average temperature to well below 2℃ and pursuing efforts to limit the temperature increase to 1.5℃"). The results demonstrated two key findings: (i) Our financed emissions (Scope 3 Category 15) would exceed the levels permitted under the SDS well before 2050, resulting in a global average temperature rise exceeding 1.5℃; (ii) The current level of efforts remains insufficient.

(3)-2 Metrics related to the impacts of government bond investments

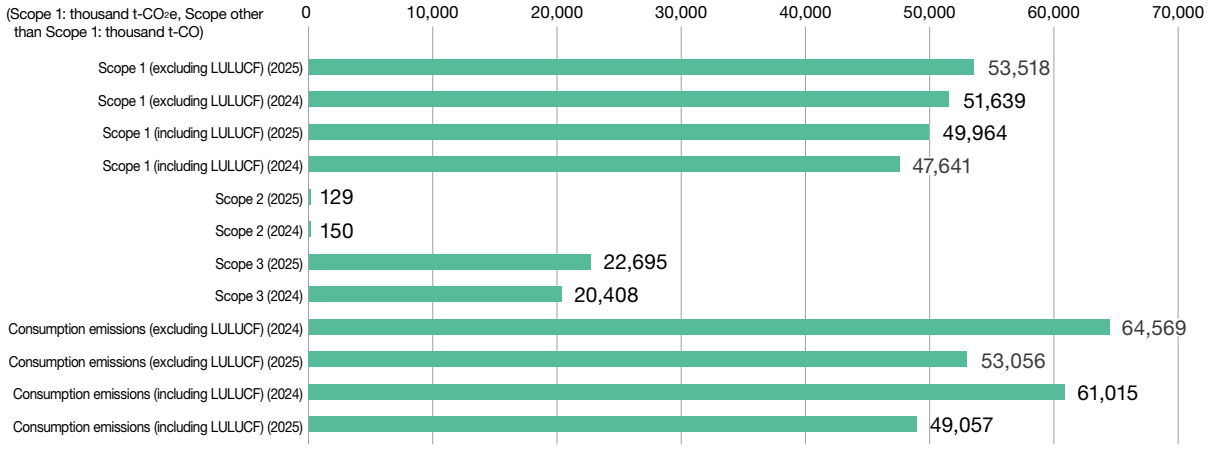
PCAF (Partnership for Carbon Accounting Financials), which supports the measurement and disclosure of GHG emissions related to financial activities, published the calculation and disclosure standards for GHG emissions associated with government bond investments in the second edition of “The Global GHG Accounting and Reporting Standard for the Financial Industry” in December 2022. Based on this, we disclose the GHG emissions from our government bond investments as follows. The market value of the government bonds subject to this calculation and disclosure is approximately 32 trillion yen (as of the end of September 2025), representing about 60% of our total assets under management.

The definitions of terms related to GHG emissions associated with government bond investments are shown in the table below and differ from those used for emissions from equity and corporate bond investments. Furthermore, the calculation methods differ: while GHG emissions from equity and corporate bond investments are calculated as the proportion of our investment balance relative to the investee companies’ enterprise value, those from government bond investments are calculated using GDP instead of enterprise value.

● Terms related to GHG emissions associated with government bond investments

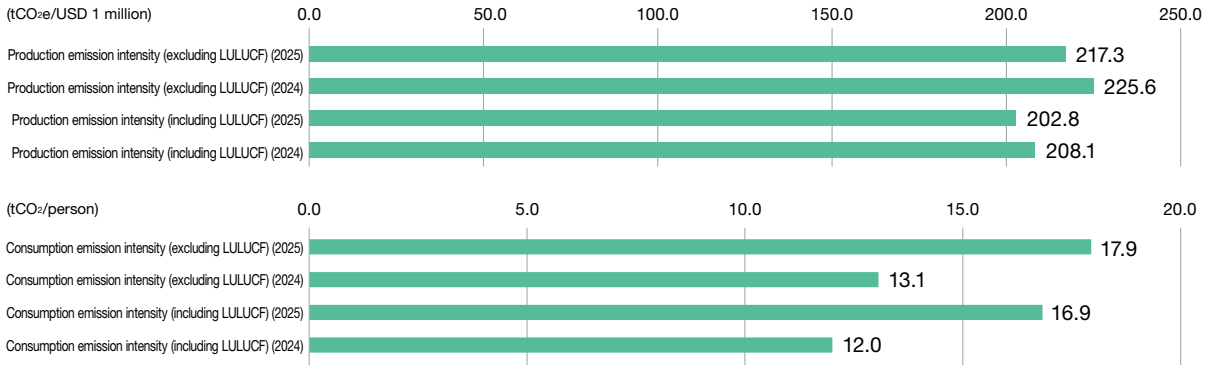
Scope 1	GHG emissions generated from sources within the country. Also referred to as “production emissions.”
Scope 2	GHG emissions generated in other countries during the production of energy (electricity, heat, steam, cooling, etc.) imported and consumed domestically
Scope 3	GHG emissions generated in other countries during the production of products and services imported and used domestically
Imported emissions	GHG emissions generated in other countries during the production of energy, products, and services that are imported The sum of Scope 2 and Scope 3
Exported emissions	GHG emissions generated domestically during the production of energy, products, and services that are exported to other countries
Consumption Emissions	GHG emissions based on domestic consumption Consumption Emissions = Scope 1 + Scope 2 + Scope 3 – Exported emissions

● Financed emissions*5



*LULUCF: Emissions from Land Use, Land-Use Change, and Forestry.

● Emission intensity (Carbon intensity)*6



As the scale of our portfolio continues to expand, upward pressure arises on the absolute value of GHG emissions associated with government bond investments. In light of this, we aim to reduce emissions intensity in the short term. In 2025, our production emissions intensity (excluding LULUCF) was 217.3 (t-CO_2e/USD 1 million), lower than the previous year's 225.6 (t-CO_2e/USD 1 million). We will continue these efforts given that reducing the absolute amount of financed emissions will become increasingly important in the long term.

We engage in public advocacy (such as making proposals and expressing opinions) with governments and other entities to maintain and enhance the foundations of economic activity, including climate and nature. Through these activities, we will encourage governments to implement the policy measures necessary to transition to a net-zero economy. Additionally, reducing GHG emissions associated with government bond investments requires lowering emissions from companies in those countries. Based on this, we will promote the necessary actions to reduce GHG emissions through engagement with investee companies.

As an institutional investor across various asset classes, we aim to leverage synergies among these engagement activities to reduce GHG emissions associated with government bond investments effectively and efficiently.

We note that while these metrics have been calculated in accordance with PCAF standards, challenges exist, such as the slow updating of country-specific GHG emissions data used for calculations (for details on the calculation methods and data used, please refer to "Detailed Information on metrics" *7 at the top of P51).

PCAF itself continues to explore improved calculation methods. Simultaneously, we will consider initiatives to enhance data quality and calculation methods to achieve more accurate estimates of GHG emissions and their reductions.

Detailed information on metrics

* 1 GHG emissions from investee companies in our portfolio (Scope 1 and 2) For bonds, calculated solely for corporate bonds. The calculation formula is as follows:

Stocks:

$$\sum \left(\frac{\text{The amount of stock investment}}{EVIC} \times \text{The corporate emissions} \right)$$

EVIC=Enterprise Value Including Cash

* The amount of stock investment is calculated using market value (market price × number of shares held)

Bonds:

$$\sum \left(\frac{\text{The amount of bond investment}}{EVIC} \times \text{The corporate emissions} \right)$$

EVIC=Enterprise Value Including Cash

* 2 The weighted average of GHG emissions per million USD of net revenue at investee companies in our portfolio, calculated using their respective investment weights within the portfolio. For bonds, calculated solely for corporate bonds. The calculation formula is as follows:

$$\sum \left(\frac{\text{The amount of investment}}{\text{The market value of the portfolio}} \times \frac{\text{The corporate emissions (Scope 1 and 2)}}{\text{The corporate revenue (USD 1 million)}} \right)$$

* 3 The ratio comparing GHG emissions (Scope 1 and 2) of the investee companies in our portfolio to those (Scope 1 and 2) of investees in a benchmark portfolio of comparable size (see table below). A value below 100% indicates that GHG emissions from the investee companies in our portfolio are lower than those in the benchmark portfolio.

* 4 The ratio comparing the weighted-average carbon intensity of our portfolio to that of a benchmark (see table below), assuming an investment of assets of comparable scale. A value below 100% indicates that the weighted-average carbon intensity of our portfolio is lower than that of the benchmark.

Asset	Benchmark
Domestic stock	TOPIX
Foreign stock	MSCI ACWI (excluding Japan)
Domestic bond	NOMURA-BPI (corporate bonds)
Foreign bond	Bloomberg Barclays Global Aggregate Bond Index

* 5 The calculation formula is as follows:

$$\sum \left(\frac{\text{Book Value of Government Bond Investments}}{\text{PPP*-Adjusted GDP}} \times \text{GHG Emissions of the Government Bond Issuing Country} \right)$$

* PPP: Purchasing Power Parity

* 6 The calculation formula is as follows:

Production Emission Intensity:

$$\sum \left(\frac{\text{Book Value of Government Bond Investments}}{\text{Book Value of Portfolio}} \times \frac{\text{Production Emissions of the Government Bond Issuing Country}}{\text{PPP-adjusted GDP}} \right)$$

Consumption Emission Intensity:

$$\sum \left(\frac{\text{Book Value of Government Bond Investments}}{\text{Book Value of Portfolio}} \times \frac{\text{Consumption Emissions of the Government Bond Issuing Country}}{\text{Population}} \right)$$

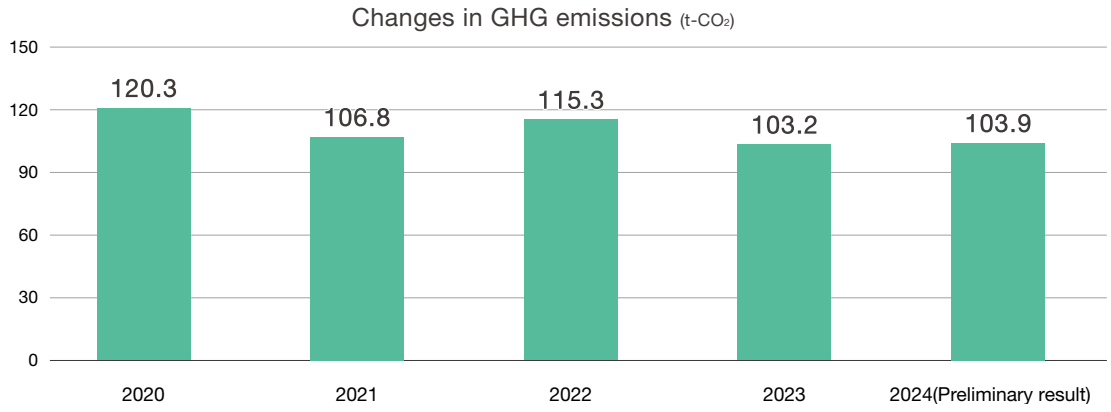
* 7 The data used to calculate GHG emissions associated with government bond investments is as follows:

Data used	Data source	Latest year of data*
Scope 1 (excluding LULUCF /including LULUCF)	UNFCCC *For countries without available data, estimates were based on economic activity data.	2021 (Annex I countries**), 2023 (Non-Annex I countries)
Scope 2 and 3	OECD *Countries without available data were excluded from the calculation.	2020
Exported emissions	OECD	2023
PPP-adjusted GDP	World Bank	2020, 2021, 2023
Population	World Bank	2023

* The latest available data for GHG emissions were used, while PPP-adjusted GDP and population data were aligned with the latest year of emissions data.
** For Australia, the data year was 2020 instead of 2021.

(4) Metrics related to direct operations

● **GHG emissions in our direct operations** (Scope 1 and 2)*



Given the nature of our business, we consider our own GHG emissions (Scope 1 and 2) to be negligible compared to our financed emissions (Scope 3); however, as a member of the Resona Group, we recognize the need to reduce them. We are therefore undertaking initiatives to achieve the “Net zero GHG emissions by fiscal 2030” target established by Resona Holdings (please refer to https://www.resona-gr.co.jp/holdings/sustainability/sdgs/ long_term_indicators/index.html).

* Scope 2 GHG emissions from Resona Group’s Tokyo Head Office Building 4th Floor (including our company) were calculated based on the periodic reporting requirements of the Act on Rationalizing Energy Use (Energy Conservation Act).
* Last year’s report presented data calculated by multiplying the basic emission factor of the electricity providers; this year, it is calculated by multiplying the adjusted emission factor of the electricity providers.

2 Nature-related Metrics and Targets

As stated in the “Strategy” chapter, we recognize that nature-related risks and opportunities (including system-level risks that may arise when impacts on nature compromise the integrity of environmental systems) could significantly affect the medium- to long-term value of the trust assets we manage, and thus we must manage them appropriately.
To manage these dependencies and impacts on nature, as well as nature-related risks and opportunities, we must both encourage behavioral changes in investee companies through stewardship activities and realize real-world impacts (mitigation of negative impacts on nature) through these changes.
Consistent with our approach to climate-related metrics and targets and to assess the effectiveness of our stewardship activities, we have set “metrics related to the performance of our engagement activities” and “metrics related to behavioral changes at investee companies.” We consider these eligible response metrics listed in Annex 2 of the TNFD recommendations.
The overall framework for the metrics and targets to assess and manage nature-related dependencies, impacts, risks, and opportunities is as follows.

Value Chain Classification	Metrics classification	Metrics	Targets (if set)
Investee companies	(1) Metrics related to our engagement activities	Number of companies with which we conducted engagement activities on natural capital	-
	(2) Metrics related to behavioral changes at investee companies	Percentage of companies subject to in-house engagement that meet certain conditions for sustainable palm oil procurement	100% by 2030
		Percentage of in-house engagement target companies that meet specific conditions related to sustainable paper and timber procurement	100% by 2030
	(3) Metrics related to the impacts on climate	(To be considered in the future based on the availability of data and analysis methodologies)	-
Resona Asset Management	(4) Metrics related to direct operations	(No metrics are set; deemed to have minimal dependence and impact on nature)	-

Please note that TNFD recommendations require disclosure of the global core disclosure metrics listed in the Annexes, yet we have not disclosed them for the following reasons. (Specific examples include metrics related to nature-related risks and opportunities, such as: “Value of assets that are assessed as vulnerable to nature-related transition/physical risks,” “Amount of capital expenditure, financing or investment deployed towards nature-related opportunities,” “Increase and proportion of revenue from products and services producing demonstrable positive impacts on nature,” and metrics related to dependence and impacts on nature, such as: “Extent of land/freshwater/ocean-use change,” “Pollutants released,” “Wastewater discharged,” “Waste generation and disposal,” and “Quantity of high-risk natural commodities sourced from land/ocean/freshwater”).
(1) As an asset management company, disclosing these metrics requires us to obtain data on each individual investee company (or at least each industrial sector) regarding their dependence and impact on nature, as well as nature-related risks and opportunities, and then use such data for analysis; currently, we consider there to be constraints in both data access and analytical methodologies.
(2) We manage the majority of our portfolio as passive investments based on mandates from asset owners. For assets under passive management, we have minimal discretion in selecting investees and determining allocation ratios; consequently, if we were to adopt metrics such as “Value of assets that are assessed as vulnerable to nature-related transition/physical risks,” the measures to directly and immediately improve the sort of metric would be extremely limited. Furthermore, even if we could exercise the option of so-called divestment to reduce exposure to vulnerable assets, we believe this approach would not reduce the real-world impact on nature, nor would it lead to system-level risk reduction.

As previously mentioned, given the nature of our business, we assess that our direct operations have minimal dependency and impact on nature; therefore, we do not adopt any metrics for this either.
In addition, over the past year, we have not been subject to any penalties, fines, or lawsuits arising from adverse impacts on the environment.
Moving forward, based on the analysis results in the “Strategy” chapter, we plan to continuously review our metrics and targets to enhance the assessment and management of nature-related risks and opportunities.

(1) Metrics related to our engagement activities

Number of companies with which we conducted engagement activities on natural capital

We proactively address natural capital as a key theme in our engagements. Number of companies with which we conducted engagement activities on climate change in FY 2024 (2024/7 to 2025/6) is as follows.

	FY 2022 (2022/7 to 2023/6)	FY 2023 (2023/7 to 2024/6)	FY 2024 (2024/7 to 2025/6)
Number of companies	64 companies (15.4%)	122 companies (30.9%)	123 companies (28.0%)
Those with whom executive management-level engagement activities are conducted	32 companies (7.7%)	62 companies (15.7%)	59 companies (21.5%)

The number of companies with which we conducted engagement activities on natural capital, and its proportion relative to the total number of companies we engaged with, have remained at the same level as in the same period in the previous year.
With the growing awareness among investee companies, we continue to have more opportunities for engagement on natural capital across a wide range of industries. More specifically, this trend follows developments such as the adoption of the Kunming- Montreal Global Biodiversity Framework at the 15th Conference of the Parties (COP15) to the UN Convention on Biological Diversity and the publication of the TNFD recommendations; the number of engagements related to initiatives for achieving “Nature Positive” outcomes and disclosures of nature-related financial information has remained at a high level. Furthermore, for the industrial sectors identified in the “Strategy” chapter where we should particularly strengthen nature-related initiatives, we will consider setting metrics and targets such as engagement coverage rates in the future.

(2) Metrics related to behavioral changes at investee companies

Percentage of in-house engagement target companies that meet specific conditions related to sustainable palm oil procurement

For engagement related to sustainable palm oil procurement (refer to P32), we have set the percentage of companies achieving the following as the metrics: (i) Disclosure of procurement targets and achievements for RSPO-certified palm oil, and (ii) Establishment of palm oil procurement policies incorporating NDPE (No Deforestation, No Peatland Development, No Exploitation). The performance results are as follows.

	FY 2022 (2022/7 to 2023/6)	FY 2023 (2023/7 to 2024/6)	FY 2024 (2024/7 to 2025/6)
The percentage of companies that meet (i) and (ii)	22.7% (15 out of 66 companies)	32.1% (18 out of 56 companies)	33.9% (19 out of 56 companies)

At UNFCCC COP26, the Glasgow Leaders’ Declaration on Forests and Land Use was announced as a joint declaration on collaboration to halt and reverse forest loss and land degradation by 2030; taking this into account, we aim to achieve 100% of the aforementioned ratio by 2030.
Please note that we conduct this engagement as a contribution to addressing both climate change and natural capital challenges.

Percentage of in-house engagement target companies that meet specific conditions related to sustainable paper and timber procurement

For engagement related to sustainable paper and timber procurement (refer to P33), we have set the percentage of companies achieving the following as the metrics: (i) Formulation of sustainable paper and timber procurement policies, and (ii) Disclosure of procurement targets and achievements for sustainable paper and timber (e.g., FSC-certified products). The performance results are as follows.

	FY 2023 (2023/7 to 2024/6)	FY 2024 (2024/7 to 2025/6)
The percentage of companies that meet (i) and (ii)	40.0% (8 out of 20 companies)	60.0% (12 out of 20 companies)

At UNFCCC COP26, the Glasgow Leaders' Declaration on Forests and Land Use was announced as a joint declaration on collaboration to halt and reverse forest loss and land degradation by 2030; taking this into account, we aim to achieve 100% of the aforementioned ratio by 2030.

Conclusion

We have been publishing this “Climate/Nature-related Financial Disclosure Report” (TCFD/TNFD Report) since 2023, and this is the third edition. Since publishing this report, as we have exchanged views with various stakeholders, we have come to realize that the urgency and importance of addressing challenges such as climate change and the loss of natural capital and biodiversity are increasing at an accelerating pace year by year, and that the nature of initiatives undertaken by the capital markets is also changing. Keeping pace with these changes and continuing to make meaningful contributions requires us to constantly review each activity while maintaining an overall sense of consistency. Therefore, as part of these efforts, we are committed to improving our information disclosure by utilizing various media, including this report, while incorporating the feedback and comments we have received from you. As a responsible long-term investor, we will continue to engage sincerely with a wide range of stakeholders, including our investee companies, and implement highly effective activities. Through these efforts, we will strive to enhance the corporate value of investee companies and, ultimately, the overall value of the assets entrusted to us by our clients. Furthermore, to address complex and intertwined sustainability challenges and realize a better future society and environment, we will collaborate with stakeholders and persistently tackle these issues. We believe that these steadfast efforts will lead to the realization of our purpose: “To ensure a prosperous and happy life for future generations as well as our customers.”

Disclaimer

This report contains “forward-looking statements,” including expectations, forecasts, targets, and plans, etc., related to the industrial sectors to which our investee companies and we belong, etc. Such statements are based on available information as of the date they are made and assumptions related to uncertain factors. These statements and assumptions involve risks and uncertainties, and actual performance can differ materially from that expressed or implied by them. Causes of these risks and uncertainties include, but are not limited to, policies and regulations, the economic and financial environment, energy prices, climate conditions, demographic trends, and technology. In light of these risks and uncertainties, forward-looking statements in this report should not be relied upon unduly. As mentioned above, the “forward-looking statements” in this report are as of the date they are made, and we assume no duty or policy to update or revise them. In addition, the information on companies, etc., other than us in this report is quoted from publicly available information, etc., and we have not verified the accuracy and appropriateness of it in any way and do not warrant or guarantee the accuracy or appropriateness of any of it.

UD FONT by MORISAWA