

Environment

Environmental Management	28
Climate Change (Disclosure in Line with the Recommendations of the TCFD)	35
Living in Harmony with Nature (Disclosure in Line with the Recommendations of the TNFD)	62
Contributing Toward the Building of the Circular Economy	87
Sustainable Forestry	98
Water Management	106
Environmental Data	110

Environment

Environmental Management

Policy ▾ | Targets ▾ | Structures and Systems ▾ | Initiatives ▾ |

Policy

Marubeni Group Environmental Policy (revised in January 2019)

Basic Philosophy

In full awareness of its responsibilities as a good corporate citizen, recognizing the environmental problems as material issues, the Marubeni Group will make every effort to simultaneously pursue both a prosperous society and environmental conservation, while aiming to achieve the sustainable development of society.

Basic Principles

As a global corporate entity that engages in diverse business activities across a broad range of sectors, the Marubeni Group will apply the Environmental Management System to all the activities, services and products of the Marubeni Group, and observe the following principles it has established for environmental conservation.

1. All business activities will be conducted in consideration of their possible impact on the environment. We will contribute to cooperation with stakeholders to the conservation of the environment, the prevention of pollution and the reduction of potential environmental impacts, including efficient use of resources and taking appropriate steps to address climate change and protect biodiversity and ecosystems, focusing on the four themes below.
 - (1) Compliance with international and local applicable environmental guidelines, laws and regulations, and agreed requirements;
 - (2) Taking measures as necessary to reduce environmental impacts and prevent pollution, particularly in launching new projects and altering existing projects;
 - (3) Facilitating resource and energy conservation (mineral resources, food and water, etc.)^{*1}, waste reduction, green procurement, and increases in operational efficiency;^{*2}
 - (4) Promoting business projects, offering products and services, technical development and building social systems that help protect and improve the environment.
2. In keeping with this Environmental Policy, the Marubeni Group's Environmental Management System will be regularly reviewed to improve our environmental performance, fully conscious of the importance to comply with its requirements.
3. This Environmental Policy will be shared with all Marubeni Group officers and employees, employees of the Group's business partners, and the public.

^{*1} "Energy conservation" in 1. (3) includes energy conservation in business facilities and logistics.

^{*2} The Marubeni Group will conduct appropriate maintenance for "resource and energy conservation, waste reduction" and "increases in operational efficiency" in 1. (3).

Five Environmental Objectives

The Marubeni Group pursues the five objectives below in accordance with the Marubeni Group Environmental Policy in order to help to protect the environment and to reduce the environmental impact caused by its business activities.

- Thoroughly implement environmental considerations when promoting projects
- Expand initiatives with business partners who consider environmental aspects
- Promote environmental consideration among Group companies
- Promote environmental businesses
- Conserve energy and natural resources, and reduce waste

Policy on Mine Closures

The Marubeni Group understands the importance of reducing the impact on the environment and surrounding communities when closing down mines. We use a local business entity to communicate with local communities and other stakeholders from the project planning stage, formulate a mine closure plan, conduct an environmental impact assessment, obtain environment-related authorizations from regulatory agencies, carry out various types of monitoring necessary for maintaining those authorizations, and strive to minimize the social and environmental impact when the mine is decommissioned. We also start the necessary rehabilitation before mine closure to lessen the environmental impact after the mine closes.

Targets

Establishment of Environmental Targets

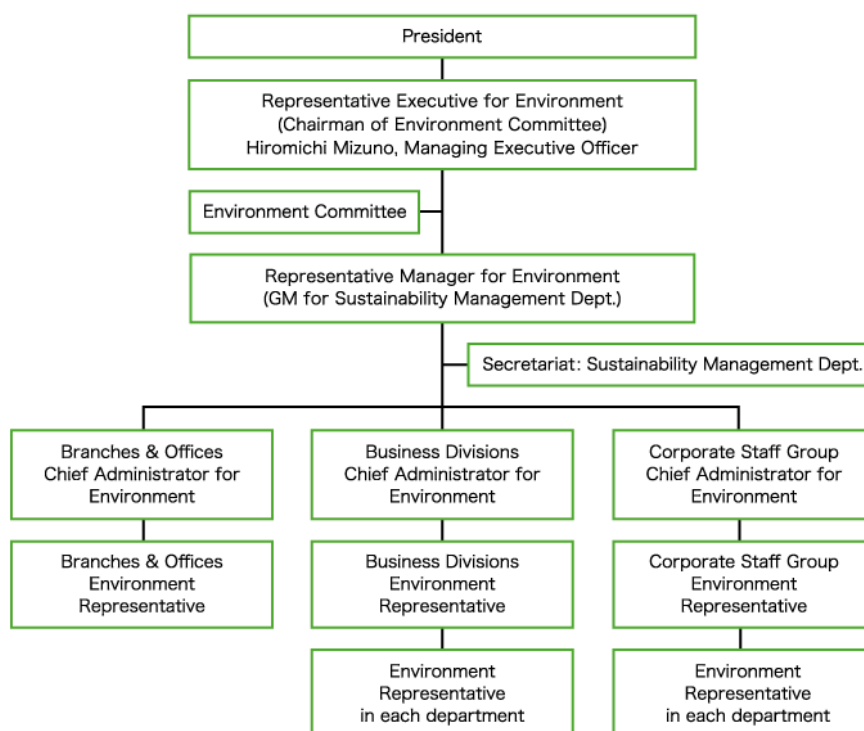
At the beginning of each fiscal year, Marubeni uses an Environmental Plan / Check Sheet to identify the issues specific to each Business Division regarding environmental risk management, Group company administration, promotion of environmental business, conservation of energy and resource, prevention of pollution, and other such matters. Marubeni then establishes environmental targets for each Business Division and works towards achieving them.

Structures and Systems

The Marubeni Group Environmental Policy was established in 1998 as the embodiment of the Marubeni Group's firm commitment to environmental conservation.

The Marubeni Group promotes environmental considerations in its own business operations under the leadership of the Environment Committee chaired by the Chief Sustainable Development Officer, who is Managing Executive Officer.

Marubeni Group EMS Organization



Environmental Management System (ISO 14001)

The environmental management system (EMS) based on ISO 14001 is to promote continuous improvement through planning, implementation, operation, inspection, and management review of our environmental initiatives, using the PDCA cycle.

Marubeni (Tokyo Head Office, Hokkaido Branch, Chubu Branch, Osaka Branch, Kyushu Branch, and Kawasaki Clean-Power) has introduced ISO 14001 environmental management system (EMS) as a tool to assist all employees in addressing environmental issues based on a common understanding.

Based on the survey for FYE 3/2026 (as of October 2025), the status of Marubeni Group's acquisition of environmental management systems based on ISO 14001 is as follows:

Marubeni Group as a whole	64 out of 498 companies (12.9% of total Group)
---------------------------	--

The Marubeni Group Multi-site Certificated Subsidiaries

The Marubeni Group in Marubeni Group Environmental Policy includes Marubeni Corporation and the subsidiaries listed below:

- Marubeni Corporation
- Marubeni Chemix Corporation
- Marubeni Power & Infrastructure Systems Corporation
- Marubeni Plax Corporation
- Yamaboshiya Co., Ltd.
- Marubeni Forest LinX Co., Ltd.
- Marubeni Real Estate Management Co., Ltd.

* We shall publish the Marubeni Group Multi-site Certificated Subsidiaries list together with the Marubeni Group Environmental Policy at all times.

Initiatives

Assessment of Environmental Performance

Inspection

Each Business Division at Marubeni formulates environmental targets and action plans at the beginning of each fiscal year and self-checks its progress against the plan in September and February using the Environmental Plan/Check Sheet.

External Audits

Our performance for ISO 14001 is subject to audits every year by LRQA Limited. Marubeni has continuously been certified in FYE 3/2024. We undergo ISO certificate renewal once every three years and periodic surveillance audits in the other two years.

Internal Audits

Internal environmental audits are conducted every year based on ISO 14001. In FYE 3/2025, audits were conducted on all Business Groups, General Affairs Dept., and four branches (Osaka, Chubu, Hokkaido, Kyushu).

The Sustainability Management Department formed an internal audit team, and personnel who had an internal auditor qualification verified whether the Company's environmental management system was properly operated through interviews and other appropriate means with personnel in each group, department, or branch. In addition to legal compliance with environment-related laws and regulations, we strive to prevent environmental risks by multifaceted analysis on various aspects, such as the management at the point of change in each business.

Compliance with Environmental Laws and Regulations

Each department at Marubeni and subsidiaries list applicable environmental laws, regulations, standards, and rules, and perform periodic reviews to ensure compliance with the regulatory requirements.

During FYE 3/2025, Marubeni conducted an assessment to determine whether its 69 departments and 99 Marubeni Group companies were in compliance with the Waste Management and Public Cleansing Act.

Marubeni also conducted an e-learning training program on the Waste Management and Public Cleansing Act for all domestic employees, including temporary employees. At the same time, training programs were held on the same topic at the Tokyo Head Office and major domestic branches (Osaka, Chubu, Hokkaido and Kyushu), where external experts provided pertinent guidelines and information. 521 Marubeni Group employees in total participated in the training program.

As a result of these and other initiatives, there were no serious violations of environmental laws or regulations by the Marubeni Group in FYE 3/2025.

Environmental Education and Training

Marubeni provides environmental education to its employees to help raise their awareness of relevant issues. In FYE 3/2025, Marubeni organized the Environmental Representatives e-Learning Training Program and the ISO 14001 Internal Environmental Auditors Training Program, in addition to training for new employees that includes addressing environmental issues, such as EMS.

Environmental Training Programs and Seminars in FYE 3/2025

Training Program/Seminar	Number of Participants
ISO 14001 Internal Environmental Auditors Training Program	30
Training Program on the Waste Management and Public Cleansing Act	521
Brush-up Training for the Environmental Representatives	106

Environmental Assessment of Development Projects and Financing/Investment

From FYE 3/2021, we introduced a sustainability assessment tool to identify and assess different kinds of sustainability risks, not only environmental risks but also social risks such as occupational health and safety and human rights.

➤ [Click here for more information on the introduction of our sustainability assessment tool](#)

Promoting Environmental Consideration at Marubeni Group Companies

In an effort to reduce the environmental impact of our overall business operations, Marubeni Group companies are encouraged to support and join environmental conservation activities, which are designed in line with the Marubeni Group Environmental Policy. We also monitor their ISO 14001 status, emergency response measures, and environmental management systems.

In addition, Marubeni Group companies are asked to ensure compliance with regulatory requirements and develop contingency plans for emergencies.

Sustainability Data Survey

Aiming to reduce the environmental impact of its operations across the Group, the Marubeni Group conducts a survey-based annual review of Marubeni Group companies' environmental and social performance.

This detailed assessment includes identification and status confirmation of elements within our operations that impact the business environment, certification acquisition, management at the point of change in each business.

➤ For "Environmental Data" please click [here](#)

Internal and External Communications on Environmental Issues, including Environmental Management Issues

In accordance with the Marubeni Group Environmental Policy, we are committed to and proactive in communicating both internally and externally regarding environmental issues, including environmental management. We have held meetings with various stakeholders specifically on sustainability and exchanged opinions on environmental issues including environmental management, as well as climate change, biodiversity, human capital, supply chain management, human rights, occupational health and safety, etc. (11 meetings in FYE 3/2025). We will continue these efforts in the future.

➤ For "Engagement with Stakeholders" please click [here](#)

Energy Conservation, Natural Resource Conservation, and Waste Reduction Activities

Marubeni is working for climate change measures in accordance with the policies of Keidanren's Commitment to a Low Carbon Society. The Company set the numerical targets to reduce energy usage (electricity and gas) by 10% or more at the Tokyo Head Office by FYE 3/2026 compared to FYE 3/2016. To achieve the numerical targets, the Company carries out initiatives such as the introduction of energy-saving equipment, etc.

The targets for its energy conservation, natural resource conservation, and waste reduction efforts to be achieved by FYE 3/2026 and results are shown below.

Targets to be Achieved by FYE 3/2026

	Targets in the FYE 3/2026	Results in the FYE 3/2025
(1) Energy Consumption at the Tokyo Head Office	Yearly targets: reduce annual average by 1% or more Targets in the FYE 3/2026: Reduce energy usage by 10% or more compared to FYE 3/2016	21.6% decrease from FYE 3/2016
(2) Waste Generation at the Tokyo Head Office	50% or more decrease from FYE 3/2016	51.0% decrease from FYE 3/2016
(3) Waste Recycling Rate at the Tokyo Head Office	70% or more	76.7%
(4) Water Consumption at the Tokyo Head Office	50% decrease from FYE 3/2016	48.5% decrease from FYE 3/2016

* In September 2016, the Tokyo Head Office moved to a temporary location in Nihonbashi due to the reconstruction of its permanent headquarters. In May 2021, the Tokyo Head Office is relocated from Nihonbashi to Takebashi new building.

* Water Consumption includes Tap Water only.

Environmental Protection at the Tokyo Head Office and Tama Center

Marubeni is taking steps to address the Carbon Reduction Reporting Program based on the Tokyo Metropolitan Ordinance on Environmental Preservation.

Tokyo Head Office

Marubeni had submitted plans to the Tokyo Metropolitan Government describing its measures to reduce CO₂ emissions volume of the Tokyo Head Office by approximately 17% from the reference value (average emissions from April 2002 to March 2005) during the five years from April 2015 to March 2020. However, from FYE 3/2017, Marubeni has not submitted Carbon Reduction Reports after moving the Tokyo Head Office to a temporary location in Nihonbashi in September 2016 (due to the reconstruction of its permanent headquarters) and has submitted Carbon Reduction Reports of Specified Tenants, etc. to the Tokyo Metropolitan Government through the building owner of its temporary location.

Due to the relocation of the Tokyo Head Office submission of Carbon Reduction Report of Specified Tenants, etc. was not required for FYE 3/2021.

In conjunction with the completion of the new Head Office in February 2021, Marubeni submits the Carbon Reduction Reports from FYE 3/2023 to the Tokyo Metropolitan Government.

Marubeni submitted plans to the Tokyo Metropolitan Government describing its measures to reduce CO₂ emissions volume of the Tokyo Head Office by approximately 17% from the reference value (8,111 metric tons of CO₂) in FYE 3/2025.

Tokyo Head Office: Past Submissions of Carbon Reduction Reports	
Covering FYE 3/2011-FYE 3/2015	Submitted in November 2011
Covering FYE 3/2011-FYE 3/2015	Submitted in November 2012
Covering FYE 3/2011-FYE 3/2015	Submitted in November 2013
Covering FYE 3/2011-FYE 3/2015	Submitted in November 2014
Covering FYE 3/2011-FYE 3/2015	Submitted in November 2015
Covering FYE 3/2021-FYE 3/2025	Submitted in April 2023
Covering FYE 3/2021-FYE 3/2025	Submitted in November 2024
Covering FYE 3/2021-FYE 3/2025	Submitted in November 2025

Tokyo Head Office: Past Submissions of Carbon Reduction Reports of Specified Tenants, etc.	
Covering FYE 3/2016-FYE 3/2020	Submitted in October 2017
Covering FYE 3/2016-FYE 3/2020	Submitted in October 2018
Covering FYE 3/2016-FYE 3/2020	Submitted in October 2019
Covering FYE 3/2016-FYE 3/2020	Submitted in November 2020

Tama Center

Marubeni submits plans to the Tokyo Metropolitan Government describing its measures to reduce the CO₂ emissions volume of the Tama Center, a training center managed by the Tokyo Head Office, by approximately 27% from the reference value (average emissions from April 2005 to March 2008) during the five years from April 2020 to March 2025.

The emissions volume in FYE 3/2025 was 1,626 metric tons of CO₂, a decrease of approximately 86% compared to the reference value (the emissions volume was calculated based on estimated reference value of 11,831 metric tons of CO₂.)

Tama Center: Past Submissions of Carbon Reduction Reports	
Covering FYE 3/2011-FYE 3/2015	Submitted in November 2011
Covering FYE 3/2011-FYE 3/2015	Submitted in November 2012
Covering FYE 3/2011-FYE 3/2015	Submitted in November 2013
Covering FYE 3/2011-FYE 3/2015	Submitted in November 2014
Covering FYE 3/2011-FYE 3/2015	Submitted in November 2015
Covering FYE 3/2016-FYE 3/2020	Submitted in November 2016
Covering FYE 3/2016-FYE 3/2020	Submitted in November 2017
Covering FYE 3/2016-FYE 3/2020	Submitted in November 2018
Covering FYE 3/2016-FYE 3/2020	Submitted in November 2019
Covering FYE 3/2016-FYE 3/2020	Submitted in September 2020
Covering FYE 3/2021-FYE 3/2025	Submitted in November 2021
Covering FYE 3/2021-FYE 3/2025	Submitted in November 2022
Covering FYE 3/2021-FYE 3/2025	Submitted in November 2023
Covering FYE 3/2021-FYE 3/2025	Submitted in December 2024

Environment

Climate Change (Disclosure in Line with the Recommendations of the TCFD)

Disclosure in Line with the Recommendations of the TCFD ▼ | Strategy ▼ | Governance ▼ |
 Risk Management ▼ | Metrics and Targets ▼ | Initiatives ▼ |
 Collaborating with Stakeholders and Coexistence with Local Community ▼ |

Disclosure in Line with the Recommendations of the TCFD

Recognizing the importance of climate-related financial disclosures, in line with the recommendations of the TCFD^{*1}, we are endeavoring to identify climate-related risks and opportunities and to enhance related disclosure. In addition, we joined TCFD Consortium^{*2} of Japanese companies that affirm the recommendations of the TCFD.

^{*1} The Task Force on Climate-related Financial Disclosures (TCFD) was established by the Financial Stability Board (FSB).

^{*2} Click here to view the TCFD Consortium website [☞](#)

Click here to view the past disclosures.

- ▶ Disclosure in 2021 (September 2021) [📄](#) [620KB]
- ▶ Disclosure in 2022 (September 2022) [📄](#) [374KB]
- ▶ Disclosure in 2023 (September 2023) [📄](#) [344KB]
- ▶ Disclosure in 2024 (April 2025) [📄](#) [2.0MB]

Strategy

Long-Term Strategy on Climate Change | Scenario Analysis ▼ | Results of Scenario Analysis ▼
 | Financial Implications [Current] [Short Term] ▼

Long-Term Strategy on Climate Change

In accordance with the spirit grounded in “Fairness, Innovation and Harmony,” the Marubeni Group is proudly committed to social and economic development and safeguarding the global environment by conducting fair and upright corporate activities as our Management Philosophy. The Marubeni Group’s long-term strategy is to put our Management Philosophy into practice and to create value and grow by anticipating the challenges of customers and society and providing solutions.

The challenges faced by customers and society are diverse and constantly evolving. To stay ahead of these changes, the Marubeni Group continues to evolve, using four key aspects of diversity—1. ➤ human capital, 2. ➤ regions, 3. ➤ sectors, and 4. ➤ business models—as important differentiators. This is major strength and source of value creation for the Marubeni Group. To further enhance this strength, we have identified the “Fundamental Materiality (1. Human Capital That Creates New Value, 2. Robust Management Foundations, 3. Governance That Supports Coexistence with Society)” and are committed to its continuous strengthening.

Climate change is a key factor that impacts the growth of the Marubeni Group and, as such, has been identified as one of the issues under “Environmental & Social Materiality.” To anticipate the societal issues posed by climate change and provide solutions, we have formulated “The Marubeni Long-Term Vision on Climate Change.” In alignment with the Paris Agreement, the Marubeni Group aims to reduce GHG emissions and views the transition to a low-carbon and decarbonized society, both within and outside the Group, as a growth opportunity.

* Marubeni categorizes time horizons for its climate change initiatives into short-term (up to 3 years), medium-term (3 to 10 years), and long-term (10 to 30 years). Regarding the financial implications in the long term, the high degree of uncertainty in measurement renders quantitative information less useful. Therefore, qualitative information is provided in the sections “Long-Term Strategy on Climate Change” and “Marubeni Group’s Initiatives Leading the Transition to a Low-Carbon and Decarbonized Society.”

* For details on “Fundamental Materiality” and “Environmental & Social Materiality,” please refer to the ➤ Materiality for the Marubeni Group.

* “The Marubeni Long-Term Vision on Climate Change”

The Marubeni Group formulated the Long-Term Vision on Climate Change in March 2021. This vision is built on two pillars, the first being the achievement of net-zero GHG emissions by the Marubeni Group (including reductions in CO₂ emissions from Scope 1, Scope 2, and Scope 3 Category 15 (Investments); for details, please refer to the “ ➤ Metrics and Targets” section). The second is contributing to the transition to a low-carbon and decarbonized society through business activities (including the calculation of reductions across all Scope 3 categories and contributions to decarbonization; for details, please refer to the “ ➤ Contribute to Low-Carbon/Decarbonization Through Our Businesses” section). By proceeding with both at the same time, we aim to generate a positive impact on climate change and grow as a corporate group.

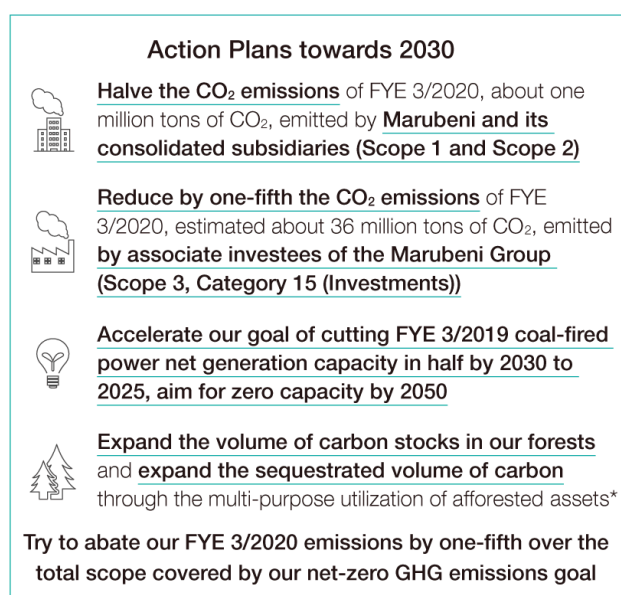
The ideals that the Marubeni Group aims for: **Net Positive**

To generate a positive impact on climate change and grow as a corporate group

(1) Achieve net-zero GHG emissions by 2050

(2) Contribute to low-carbon/decarbonization through our businesses

Net ZERO Emissions



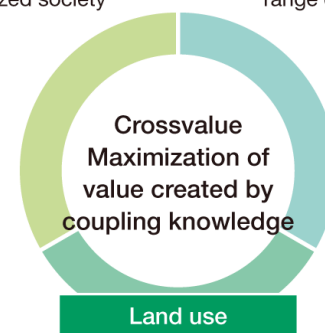
Positive Impact

Energy supply

Energy systems to serve as the foundations for a decarbonized society

Energy demand

Control/abate GHG emissions over a broad range of industries



Land use
Sustainable agri-inputs businesses and forest management

* Estimated volume of carbon stocks will be about 19 million tons of CO₂ equivalents by 2030.

➤ The Marubeni Long-Term Vision on Climate Change: Towards Net-Zero GHG Emissions  [721KB]

* The following, with some exceptions, is based on the information available as of September 2025.

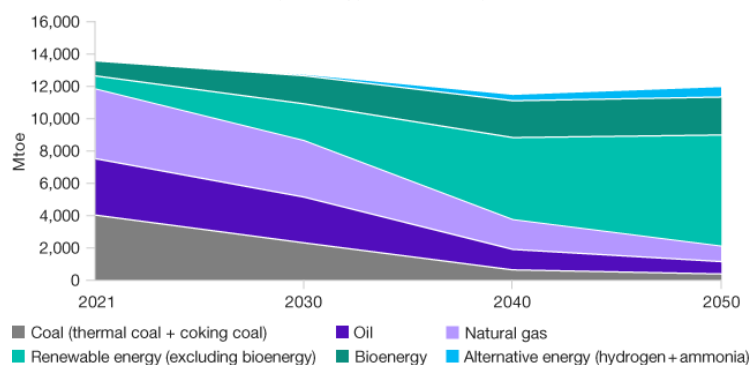
Marubeni Group's Initiatives Leading the Transition to a Low-Carbon and Decarbonized Society

Leveraging the strengths of the Marubeni Group, we present three examples of how the transition to a low-carbon and decarbonized society is being seized as an opportunity for growth.

1) Initiatives in the Resources and Energy Sector

By leveraging the diversity of sectors and business models, we are driving sustainable growth through the rebalancing of our business portfolio to anticipate the transition to a low-carbon and decarbonized society. Specifically, in the energy supply sector, we contribute to the transition from fossil fuels to renewable and alternative energy, while continuing to support the natural gas business in line with transition needs. In addition, in the resources sector, we are increasing copper production capacity, which is essential for promoting electrification, a key component of decarbonization. This strategy helps maintain the overall profitability of the Group in the resource and energy sectors, while positively influencing the financial impacts associated with the transition.

Global Forecast of Primary Energy Demand by Source



* Based on the IEA "World Energy Outlook 2023" NZE Scenario, prepared by Marubeni

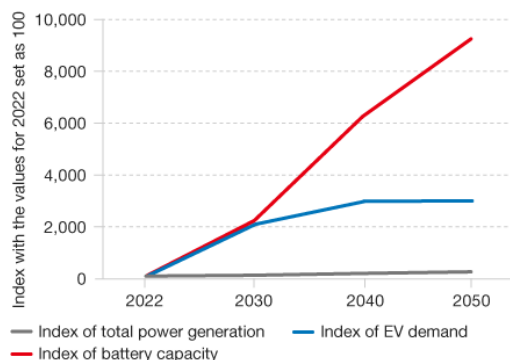
■ Description related to coal (thermal coal + coking coal)

- The Marubeni Long-Term Vision on Climate Change
- Policy for Coal-Related Business
- Scenario Analysis
"Power Generation Business (Coal-Fired Power Generation / Gas-Fired Power Generation / Renewable Energy Power Generation)"
- Scenario Analysis
"Iron Ore Mine and Coking Coal Mine Investment Business"
- Metrics and Targets

■ Description related to natural gas

- Scenario Analysis
"Energy Resource Investment Business (Oil/Gas/LNG)"
- Description related to renewable energy (excluding bioenergy)
- Scenario Analysis "Alternative Energy Business"
- Scenario Analysis
"Power Generation Business (Coal-Fired Power Generation / Gas-Fired Power Generation / Renewable Energy Power Generation)"
- Marubeni Corporation Integrated Report 2025 (P. 36) [\[21.5MB\]](#)
- Strategic Platform Business
- Mid-Term Management Strategy GC2027 [\[1.5MB\]](#)
- Marubeni IR Day 2025 (Presentation Material) [\[5.6MB\]](#)

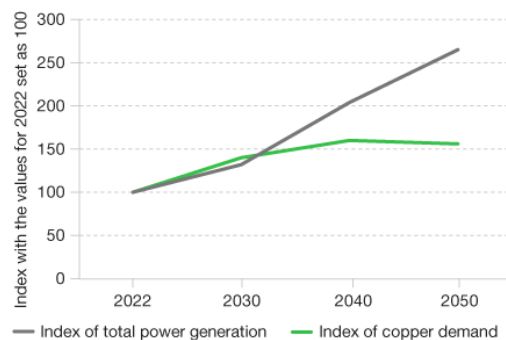
Index of Total Power Generation / EV Demand / Battery Capacity (Global)



* Based on the IEA "World Energy Outlook 2023" NZE Scenario, prepared by Marubeni

* Index with the 2020 value of EV demand set as 100

Index of Total Power Generation / Index of Copper Demand (Global)



* Based on the IEA "World Energy Outlook 2023" NZE Scenario, prepared by Marubeni

■ Description related to index of copper demand

- Scenario Analysis "Copper Mine Investment Business"
- Marubeni Corporation Integrated Report 2024 (P. 40) [\[35.5MB\]](#)
- Marubeni IR Day 2025 (Presentation Material) [\[4.5MB\]](#)

2) Initiatives in the Electric Power Sector

In the electric power sector, as society transitions toward carbon neutrality, we meet the diverse needs of our customers by integrating a range of capabilities. These include top-tier achievements as an Independent Power Producer (IPP), extensive experience in Engineering, Procurement, and Construction (EPC) coordination, and deep expertise in power wholesale and retail. By leveraging these strengths, we provide comprehensive solutions to enhance energy efficiency and facilitate the transition to a low-carbon, decarbonized society, all while generating added value.

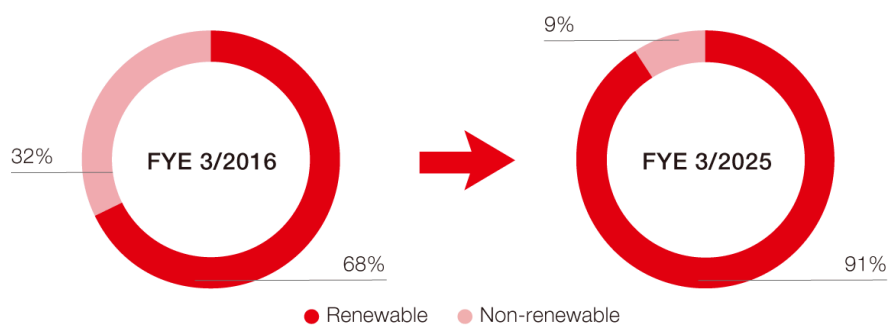
In particular, a noteworthy initiative supporting the transition to a low-carbon and decarbonized society is the work of SmartestEnergy Ltd. (SEL). SEL was established from scratch in 2001 by the Marubeni Group and has since been involved in wholesale procurement and retail operations in the UK electricity market, with a primary focus on renewable energy sources.

In 2015, it pioneered industry-first initiatives, such as providing electricity bundled with renewable obligation certifications for the industrial sector. SEL rapidly grew into a major power service provider, ranking sixth in retail sales volume, on par with major UK electric utilities, and continues to expand today.

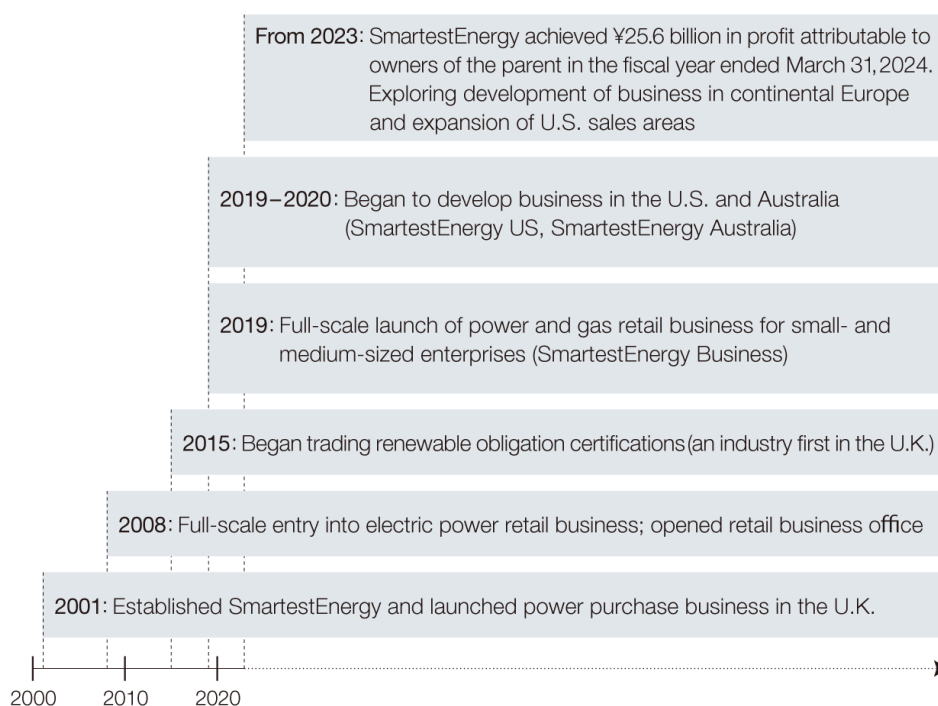
(For more details, please refer to the [Marubeni Corporation Integrated Report 2025 \(P. 36\)](#) [21.5MB].)

Today, these initiatives have been expanded to the United States and Australia, while domestically, they are being implemented by Marubeni Power Retail Corporation (hereinafter, "Marubeni Power Retail"). The Marubeni Group entered the electricity retail business in 2000 as a pioneer in the new power sector and established Marubeni Power Retail in 2011. In line with the liberalization of Japan's electricity market, the Group has remained committed to ensuring a stable supply of electricity. Marubeni Power Retail offers a variety of products and plans tailored to meet the needs of its customers, including various renewable energy retail options for end-users. Additionally, it provides wholesale renewable energy supply services, which bundle renewable electricity procured from multiple power producers and deliver it to retail electricity providers.

Breakdown of Power Source for Offered Products



Evolution of Growth at SmartestEnergy Group



3) Initiatives in the Forestry and Afforestation Sector

In the forestry and afforestation sector, we manage approximately 120,000 hectares of afforestation projects in two countries, Indonesia and Australia (about twice the size of the 23 wards of Tokyo), with a total gross project area of around 300,000 hectares. In particular, we believe that our afforestation project in Indonesia (PT. Musi Hutan Persada, or MHP) holds significant potential, as it spans vast areas in the tropical rainforest climate zone, characterized by abundant precipitation and sunlight, which are ideal conditions for tree growth.

Currently, the business primarily focuses on paper production applications. However, while closely monitoring the transition to a low-carbon and decarbonized society, we aim to maximize profits through environmental value. This includes exploring the utilization of wood resources for other applications and leveraging the Marubeni Group's long-standing expertise in forest management to generate forest carbon credits in Japan, India, the Philippines, and other regions.



Contribute to Low-Carbon/Decarbonization Through Our Businesses

We view GHG emissions across the value chain as opportunities to contribute to their reduction and have calculated all relevant Scope 3 categories. A distinctive characteristic of the Marubeni Group is that its Scope 3 emissions (82 million t-CO₂e) are approximately 68 times greater than its Scope 1 and Scope 2 emissions (1.2 million t-CO₂e).

Scope 1, Scope 2, and the Main Categories of Scope 3 for Our Group (for details, please refer to the “> Environmental Data” section)
(Unit: Million t-CO₂e)

		FYE 3/2025
Scope 1, 2	Scope 1	0.9
	Scope 2	0.2
	Total	1.2
Scope 3	Category 1 (Purchased goods and services)	35
	Category 11 (Use of sold products)	13
	Category 15 (Investments)	24
	Other categories	10
	Total	82

* The total of each category and the overall total may not match due to rounding.

* Category 1: Includes fertilizers, grains, chemicals, and other products.

* Category 11: Includes fossil fuels and other products.

* Category 15: Includes power generation projects and other projects.

The entities responsible for Scope 3 emissions span a wide variety of sectors. Providing low-carbon and decarbonization solutions to these entities not only significantly contributes to climate change mitigation but also represents a transition opportunity to a low-carbon and decarbonized society, and a driver of growth for the Marubeni Group.

In the energy supply sector, solutions include the development of energy systems that serve as the foundation for a decarbonized society. On the energy demand sector, efforts to reduce and mitigate GHG emissions over a broad range of industries are crucial. In the land use sector, initiatives such as sustainable agri-inputs businesses and forest management are also key solutions being promoted.

Furthermore, to quantitatively evaluate the effectiveness of these solutions, we calculate both avoided emissions and volume of carbon stocks. These also serve as indicators of how the Marubeni Group is capitalizing on business opportunities.

Specific Examples of Solutions

Products and areas	Solutions	Initiatives	Domains of contribution		
			Energy supply	Energy demand	Land use
Fertilizers and chemicals	Energy-saving, efficiency improvements	Sales of green ammonia		●	
	Support more efficient fertilizer use	Optimization of fertilizer usage through soil data analysis services			●
	Carbon dioxide capture, utilization and storage (CCUS)	Sales of methanol produced from CO ₂ (transition from fossil resource-based raw materials)		●	
Fossil fuels	Transition energy	Expansion of sales of natural gas and LNG, which are essential for the transition to a decarbonized society	●		
	Alternative energy	Production and sales of next-generation fuels (hydrogen, ammonia, SAF, biomethane, etc.)	●		
	Alternative energy	Ownership and operation of an ammonia transport carrier	●		
	Alternative energy Sustainable forest management	Production and sales of biomass fuel (wood pellets and chips)	●		●
	Promotion of electrification (including EVs)	Leasing of EVs, fleet management for commercial use, and battery reuse/recycling		●	
	Promotion of electrification (including EVs) Energy-saving, efficiency improvements	Production and sales of copper and aluminum (promoting electrification and lightweighting of transportation vehicles)		●	
	Energy-saving, efficiency improvements	Logistics efficiency through container round-use and pallet round-use		●	
	CCUS	Developing a business for carbon dioxide capture, utilization, and storage		●	
Power generation	Renewable energy power generation	➤ Expansion of renewable energy-related businesses	●		
	Battery storage	Grid stabilization battery storage		●	
	Promotion of electrification (including EVs)	Development, manufacturing, and sales of next-generation batteries		●	
Cross-sectoral products and areas	Sustainable forest management	Afforestation projects for carbon credit creation			●
	Cross-sectoral domains	Creation and sale of environmental value (certificates and carbon credits)	●	●	●

Avoided Emissions

Evaluation target	Unit	FYE 3/2025	Calculation method
Renewable energy power generation	Thousand t-CO ₂ e	Approximately 1,832	The formula for calculation: Installed generation capacity × 24 hours × 365 days × capacity factor (%) × the average emission factor of the country or region of location available × equity share (%). * Only the avoided emissions from the operational phase, which account for the majority of the emissions, are calculated. Baseline: Energy mix of each country Emission factors: The country-specific CO₂ emission factors (CO₂ emissions per kWh from electricity generation) published by the International Energy Agency (IEA) are referenced.

* Avoided emissions refer to a metric that quantifies how the company's products and services contribute to the overall emission reduction of society.

In the calculation, actual data and publicly available information are used whenever possible. However, when such data is difficult to obtain, reasonable assumptions or scenarios are applied.

As a reference, we primarily use the "Guidance on Avoided Emissions" from the World Business Council for Sustainable Development (WBCSD). However, as international discussions on calculation rules continue, we will regularly review and update our calculation and disclosure methods in accordance with these developments.

Volume of Carbon Stocks

Evaluation target	Unit	FYE 3/2025	Calculation method
Afforestation and managed forests	Million t-CO ₂ e	Approximately 15	The calculation of above/below ground biomass is based on the Tier 2 approach in Chapter 4, "Forest Land," in Volume 4 of the "2019 Refinement to the 2006 IPCC Guidelines for National Greenhouse Gas Inventories."

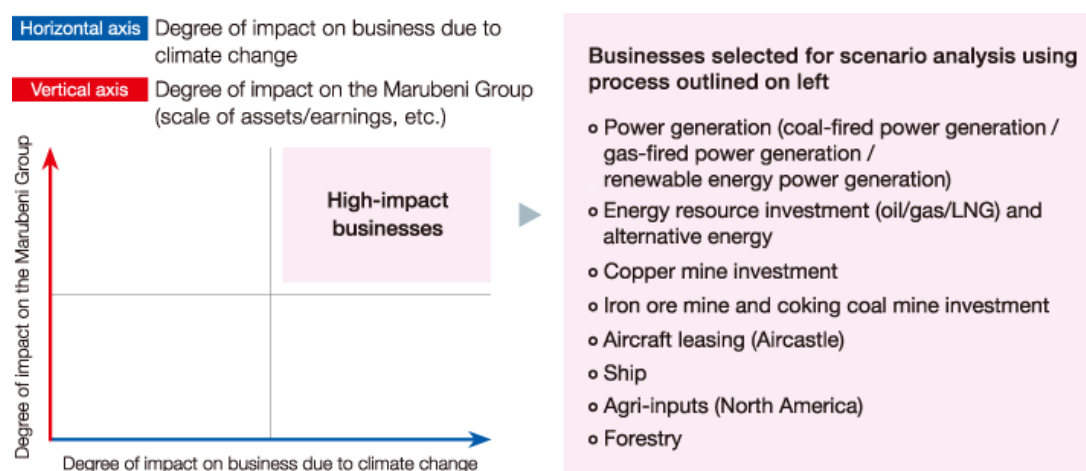
Scenario Analysis

We identified businesses with relatively high impacts on operations due to climate change, as well as those with a significant impact on the Marubeni Group (such as scale of assets, earnings, etc.). After defining short-term (up to 3 years), medium-term (3 to 10 years), and long-term (10 to 30 years) time horizons, we conducted scenario analysis in line with TCFD recommendations. This analysis took into account the business environment under both the baseline and transition scenarios, considering transition risks/opportunities, physical risks/opportunities, and time horizons. It focused on the financial impacts and response strategies for the medium term.

The highly diversified nature of the Group's business portfolio provides a high degree of resilience to climate change. While the potential impacts on the Group's finances due to the risks within specific industries or businesses are expected to be limited, we will continue to improve risk management on an ongoing basis and further increase our resilience to climate change.

Business Selection for Scenario Analysis

Businesses in the upper-right quadrant of the matrix shown below are selected for the scenario analysis.



Results of Scenario Analysis

The results of the scenario analysis for each selected business are as follows.

The scenarios and business environment overviews represent the understanding of the Marubeni Group based on major scenarios as developed by IEA (International Energy Agency) and other international organizations, but do not provide an outlook for the Group.

Analysis Process

Business environment overview (Transition risks/opportunities, physical risks/opportunities, time horizons (short-term, medium-term, long-term))

■ Baseline scenarios

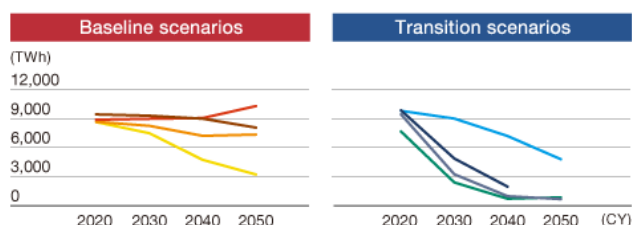
Expected changes in conditions for the selected businesses based on demand projections under baseline scenarios.

■ Transition scenarios

Expected changes in conditions for the selected businesses based on demand projections under transition scenarios.

- The data show demand projections for the selected business under each scenario as conditions evolve (all data are global, unless otherwise noted).
- If there is no significant difference between the baseline and transition scenarios, the information is presented in a summarized format.

Example: Coal-fired power generation (graph represents a sample)



Baseline scenarios:

- IEA RTS (+2.7°C)
- IEA STEPS (+2.7°C)
- IPCC RCP8.5 (+4.3°C)
- IPCC RCP6.0 (+2.8°C)
- IPCC RCP4.5 (+2.4°C)

Transition scenarios:

- IEA B2DS (+1.75°C)
- IEA SDS (+1.65°C)
- IPCC RCP2.6 (+1.6°C)
- IEA NZE (+1.5°C)
- IPCC RCP1.9 (+1.5°C)

* Data for 2020 are scenario-based projections rather than actual figures.
 * Data for IEA RTS are referenced from 2014 rather than 2020.
 * Data for IEA SDS are referenced from 2019 rather than 2020.
 * In the forestry business, IPR FPS + Nature (+1.5°C) is referenced as the transition scenario. For grain yield in the agri-inputs business, FAO BAU Overall (+4°C) is referenced as the baseline scenario, and FAO TSS Overall (+1.5°C) as the transition scenario.

- For each item of business environment overviews, we describe transition risks/opportunities, physical risks/opportunities, and time horizons (short-term, medium-term, and long-term).
- Climate-related “transition risks” refer to the risks arise from efforts to transition to a lower-carbon economy, including policy, legal, technological, market, and reputational risks.
- Climate-related “physical risks” refer to risks resulting from climate change that can be event-driven (acute physical risks) or from longer-term shifts in climatic patterns (chronic physical risk).

Financial implications [medium-term]

- The outlook on climate-related risks and opportunities in the selected businesses is provided, focusing on their expected impact on our financial position, financial performance, and cash flows over the medium-term horizon. Due to the high level of uncertainty in estimating the impact, qualitative information is presented using the following structure.

One of seven possible arrows is used to indicate the overall assessment.

Positive (High) ↑ (Med) ↗ (Low) →
 Neutral →
 Negative (Low) → (Med) ↘ (High) ↓

This section explains the assessment in more detail.

Policies and initiatives

This section outlines Group policies and initiatives for the businesses, based on the business environment overview from the scenarios.

Financial information

This section shows the net profit/loss for the relevant period attributable to owners of the parent for the selected businesses of the relevant segment (division) and the financial exposure* or segment assets.

* Exposure includes investments, loan receivables, tangible fixed assets, and guarantees.

Power Generation Business
(Coal-Fired Power Generation
/ Gas-Fired Power Generation
/ Renewable Energy Power
Generation) ✓

Energy Resource Investment
Business (Oil/Gas/LNG) and
Alternative Energy Business ✓

Copper Mine Investment
Business ✓

Iron Ore Mine and Coking
Coal Mine Investment
Business ✓

Aircraft Leasing Business
(Aircastle) ✓

Ship Business ✓

Agri-Inputs Business (North
America) ✓

Forestry Business ✓

Power Generation Business (Coal-Fired Power Generation / Gas-Fired Power Generation / Renewable Energy Power Generation)

Business environment overview (Transition risks/opportunities, physical risks/opportunities, time horizons (short-term, medium-term, long-term))

■ Baseline scenarios

[Opportunities]

- Short to long term: Global electricity demand is expected to increase.
- Short to long term: Gas-fired power generation and renewable energy are expected to increase.

[Transition risks]

- Short to medium term: If dependence on fossil fuels continues, coal-fired power generation will remain stable or show a declining trend.

[Physical risks]

- Short to long term: According to the IPCC Sixth Assessment Report, the global proportion of major tropical cyclone occurrence has increased over the last four decades.
- Short to long term: In the case of a flood, typhoon or other event exceeding the envisaged strength, there is likely to be a certain degree of impact depending on the region.

■ Transition scenarios

[Opportunities]

- Short to long term: Global electricity demand is expected to increase.
- Short to long term: Demand for renewables is expected to grow significantly.
- Short to long term: The capacity of renewable energy electricity will expand in the wholesale and retail power businesses, as well as in decentralized power generation businesses. The trade of renewable energy-related products, including environmental certificates, will expand. The demand for energy management businesses, including battery storage and power supply-demand adjustments, is rising.
- Medium to long term: The demand for hydrogen and ammonia as alternative energy sources is increasing.

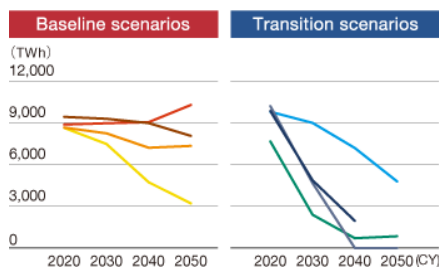
[Transition risks]

- Short to medium term: Progress in low-carbonization and decarbonization efforts will lead to a significant reduction in coal-fired power generation.
- Medium to long term: Gas-fired power generation is expected to maintain current levels until 2030. After 2030, it will decline, though in certain scenarios, it may remain unchanged.
- Medium to long term: The implementation and enhancement of carbon pricing are expected to increase the costs associated with coal-fired power generation.

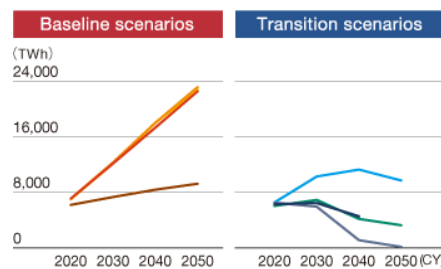
[Physical risks]

- Short to long term: According to the IPCC Sixth Assessment Report, the global proportion of major tropical cyclone occurrence has increased over the last four decades.
- Short to long term: In the case of a flood, typhoon or other event exceeding the envisaged strength, there is likely to be a certain degree of impact depending on the region.

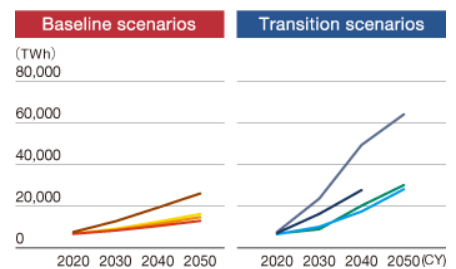
Coal-fired power generation



Gas-fired power generation



Renewable energy power generation



Baseline scenarios:

- IEA RTS(+2.7°C) ■ IEA STEPS(+2.7°C) ■ IPCC RCP8.5(+4.3°C)
- IPCC RCP6.0(+2.8°C) ■ IPCC RCP4.5(+2.4°C)

Transition scenarios:

- IEA B2DS(+1.75°C) ■ IEA SDS(+1.65°C) ■ IPCC RCP2.6(+1.6°C)
- IEA NZE(+1.5°C) ■ IPCC RCP1.9(+1.5°C)

- * Data for 2020 are scenario-based projections rather than actual figures.
- * Data for IEA RTS are referenced from 2014 rather than 2020.
- * Data for IEA SDS are referenced from 2019 rather than 2020.

- * In the forestry business, IPR FPS + Nature (+1.5°C) is referenced as the transition scenario. For grain yield in the agri-inputs business, FAO BAU Overall (+4°C) is referenced as the baseline scenario, and FAO TSS Overall (+1.5°C) as the transition scenario.

Financial implications [medium-term]

Coal-fired power	 Negative(Low)	Most of our power generation business is based on long-term power purchase agreements, where compensation is paid based on generation capacity. As a result, the impact of reduced demand for coal-fired power on existing businesses is limited. However, earnings from coal-fired power generating businesses will diminish as assets are retired.
Gas-fired power	 Positive(Low)	New project development should have a positive impact on earnings since electric power demand is projected to increase under the baseline scenarios and some new demand is projected over the short and medium term under the transition scenarios.
Renewable energy	 Positive(High)	The business environment is expected to experience increased demand under the baseline scenario, with a significant rise under the transition scenario. As a result, new developments and the expansion of renewable energy-related businesses—such as the capacity of renewable energy in wholesale and retail power businesses, decentralized power generation, environmental certificate trading, and energy management businesses, including battery storage and power supply-demand adjustments—will have a significant positive impact on revenue.

Policies and initiatives

- We will respond to rising global electric power demand by continuing to work on the Group's power generation business while closely monitoring growth trends in the renewables sector.
- We will continue the renewable energy power business. We will promote the expanded use of renewable energy and environmental certificates in the power wholesale and retail business to meet customer needs, as well as in the decentralized power generation business, to contribute to the realization of a low-carbon society.
- We will promote energy management businesses including decentralized power generation, battery storage, and power supply-demand adjustments, and work to provide decarbonization solutions through new businesses.
- We will no longer enter into any new coal-fired power generation business. By 2025, we also aim to cut our FYE 3/2019 coal-fired power net generation capacity of approximately 3 GW in half, with further abatement to approximately 1.3 GW by 2030, and aim for zero by 2050.
- We will pursue the potential for developing gas-fired power generation businesses in response to the needs of society transitioning to a low-carbon society. We will also seek to mitigate CO₂ emissions from thermal power generation utilizing new technologies based on the co-combustion of ammonia.
- The analysis identifies the risk of higher costs of CO₂ emissions due to the adoption of carbon taxes or emissions trading schemes. The risk of regulatory change is already hedged in the long-term power purchase agreements that govern most of our power generation business.

[Physical risk response]

- We are working to realize project design and operation that takes account of a wide range of risk including natural disasters.
- We are working on a range of measures to avoid or mitigate direct damage to buildings or other assets.
- Property damage insurance and business interruption insurance, depending on the business, are procured for each building or asset.
- Since its foundation, the Marubeni Group company Marnix Corporation, has built a track record as an insurance broker for overseas infrastructure projects, for which, depending on the case, it can help implement a comprehensive risk analysis and assessment, and help build an appropriate risk management program.

Financial information

Power & Infrastructure Services Division

- Power Division relevant segment net profit (FYE 3/2025): approx. ¥61.1 billion (Power IPP business reported a net profit* of approx. ¥59.8 billion.)
- Relevant segment assets (as of March 31, 2025): approx. ¥1,592.0 billion

* Total profits of consolidated subsidiaries and share of associates and joint ventures of our IPP business.

Reference: Capacity of power generation assets was approx. 1.8 GW for coal-fired power generation, approx. 2.2 GW for renewable energy power generation, and approx. 7.1 GW for gas-fired power generation, and others (as of March 31, 2025)

Energy Resource Investment Business (Oil/Gas/LNG) and Alternative Energy Business

Business environment overview (Transition risks/opportunities, physical risks/opportunities, time horizons (short-term, medium-term, long-term))

■ Baseline scenarios

[Opportunities]

- Short to long term: The share of oil and natural gas in total primary energy is expected to be on the rise.
- Short to long term: Oil demand and production are expected to increase until 2030, then flatten out, with demand and supply in equilibrium.
- Short to long term: Gas demand and production are expected to increase until 2040, with supplies of gas generally tightening over time.
- Short to long term: Demand for alternative energy will remain on a gradual uptrend.

[Transition risks]

- Short to long term: Changes in carbon pricing across various countries could lead to shifts in commercial distribution.
- Short to long term: Due to the uncertainty surrounding the growth of demand for alternative energy, manufacturing costs may remain high as a result of reduced investment in technological development and stagnation in innovation.

[Physical risks]

- Short to long term: According to the IPCC Sixth Assessment Report, the global proportion of major tropical cyclone occurrence has increased over the last four decades.
- Short to long term: In the case of a flood, typhoon or other event exceeding the envisaged strength, there is likely to be a certain degree of impact depending on the region.

■ Transition scenarios

[Opportunities]

- Short to medium term: Demand for gas will remain almost flat until 2030.
- Short to long term: Demand for alternative energy will gradually increase until 2030, and then rise steadily after 2030.

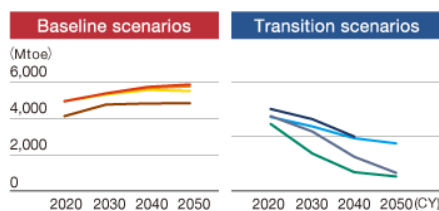
[Transition risks]

- Short to long term: Changes in carbon pricing across various countries could lead to shifts in commercial distribution.
- Medium to long term: Gas is expected to decrease after 2030, with production also declining. Supply and demand will be in equilibrium or shift slightly to undersupply.
- Medium to long term: The demand of oil and natural gas in total primary energy is expected to be on a declining trend.
- Short to long term: Oil demand and production are expected to decrease slightly until 2030 and then decline. The supply and demand balance will see a slight shift to oversupply.

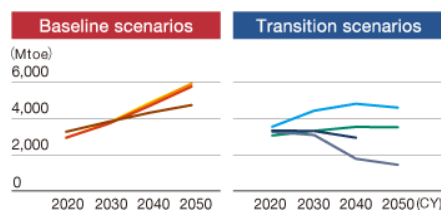
[Physical risks]

- Short to long term: According to the IPCC Sixth Assessment Report, the global proportion of major tropical cyclone occurrence has increased over the last four decades.
- Short to long term: In the case of a flood, typhoon or other event exceeding the envisaged strength, there is likely to be a certain degree of impact depending on the region.

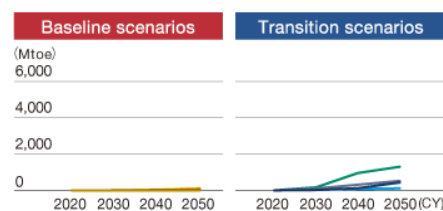
Oil demand



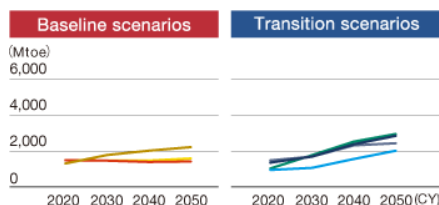
Natural gas demand



Hydrogen demand



Bioenergy demand



Baseline scenarios:

■ IEA RTS(+2.7°C) ■ IEA STEPS(+2.7°C) ■ IPCC RCP8.5(+4.3°C) ■ IEA B2DS(+1.75°C) ■ IEA SDS(+1.65°C) ■ IPCC RCP2.6(+1.6°C)
 ■ IPCC RCP6.0(+2.8°C) ■ IPCC RCP4.5(+2.4°C) ■ IEA NZE(+1.5°C) ■ IPCC RCP1.9(+1.5°C)

Transition scenarios:

■ IEA B2DS(+1.75°C) ■ IEA SDS(+1.65°C) ■ IPCC RCP2.6(+1.6°C)
 ■ IEA NZE(+1.5°C) ■ IPCC RCP1.9(+1.5°C)

* Data for 2020 are scenario-based projections rather than actual figures.

* Data for IEA RTS are referenced from 2014 rather than 2020.

* Data for IEA SDS are referenced from 2019 rather than 2020.

* In the forestry business, IPR FPS + Nature (+1.5°C) is referenced as the transition scenario. For grain yield in the agri-inputs business, FAO BAU Overall (+4°C) is referenced as the baseline scenario, and FAO TSS Overall (+1.5°C) as the transition scenario.

Financial implications [medium-term]		
Oil	 Neutral	The impact of decreasing demand on the Group's performance is expected to be limited until 2030.
Natural gas/LNG	 Positive(Low)	As demand is expected to remain almost unchanged or even slightly increase until 2030, the impact on our business affected by the external environment will be neutral or slightly positive.
Alternative energy	 Positive(Med)	We plan to engage more deeply in this sector in anticipation of the expansion of the market over the medium and long term. The impact on earnings is expected to be fairly positive, depending on technological progress.
Policies and initiatives		
- While evaluating the progress of technological innovations and climate change measures, we will consider and promote the use of fuels with lower environmental impact and the development and trading of environmental value. Simultaneously, we will continue to prioritize the stable supply of existing fuels, including natural gas and LNG used as transition fuels, whose demand is expected to rise, thereby contributing to energy security while balancing these objectives. - We will develop, produce, and trade energy sources, such as ammonia and SAF, which will be needed in large quantities in the future, aiming at improving profitability and taking steps to play an appropriate role in society. - We will consider and promote the production and sales of other alternative energies, such as biofuels and bio-methane and synthetic fuels, along with the development of the CCUS* business. * Carbon dioxide Capture, Utilization and Storage		
[Physical risk response]		
- We are working to realize project design and operation that takes account of a wide range of risk including natural disasters. - We are working on a range of measures to avoid or mitigate direct damage to buildings or other assets. - Property damage insurance and business interruption insurance, depending on the business, are procured for each building or asset. - Since its foundation, the Marubeni Group company Marnix Corporation, has built a track record as an insurance broker for overseas infrastructure projects, for which, depending on the case, it can help implement a comprehensive risk analysis and assessment, and help build an appropriate risk management program.		
Financial information		
- Relevant segment net profit including energy resource investment business (oil/gas/LNG) (FYE 3/2025): approx. ¥86.2 billion for Energy & Chemicals Division (including net profits of approx. ¥4.4 billion for LNG projects and approx. ¥5.4 billion for oil/gas exploration and production business) - Exposure of energy resource investment business (oil/gas/LNG) (as of March 31, 2025): approx. ¥90.0 billion for oil/gas interests and approx. ¥50.0 billion for LNG interests - Our alternative energy businesses are operated by multiple segments, including Energy & Chemicals Division, Power & Infrastructure Services Division, Lifestyle Division, and Aerospace & Mobility Division.		

Copper Mine Investment Business

Business environment overview (Transition risks/opportunities, physical risks/opportunities, time horizons (short-term, medium-term, long-term))

■ Baseline scenarios

[Opportunities]

- Short to long term: Demand for copper is expected to increase due to population growth, economic expansion, and the promotion of decarbonization and electrification.

[Transition risks]

- The potential for increased costs of fuels, materials, and other resources due to the introduction of new regulatory frameworks, such as carbon taxes or emissions trading schemes

[Physical risks]

- The potential for disruptions to mining operations and transportation due to extreme weather events such as droughts, heavy rainfall, or snowfall

■ Transition scenarios

[Opportunities]

- Short to long term: Demand for copper is expected to increase significantly due to population growth, economic expansion, and the promotion of decarbonization and electrification.

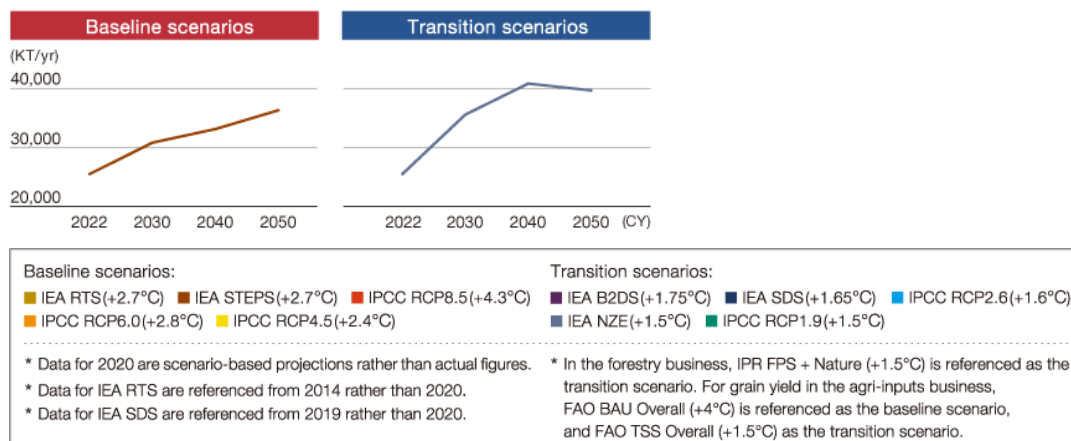
[Transition risks]

- The potential for increased costs of fuels, materials, and other resources due to the introduction of new regulatory frameworks, such as carbon taxes or emissions trading schemes
- The difficulty of new developments is increasing due to environmental permits and stricter regulations.

[Physical risks]

- The potential for disruptions to mining operations and transportation due to extreme weather events such as droughts, heavy rainfall, or snowfall

Copper demand



Financial implications [medium-term]

Positive(Med)	By capturing the growing demand, the impact on earnings is expected to be positive. Specifically, the promotion of electrification is likely to further boost copper demand and drive additional earnings growth.
---------------	---

Policies and initiatives

- We aim to seize the growing demand for copper and contribute to its stable supply through our copper mining business in Chile.
- The conversion of electricity used in our Chilean copper mining operations to 100% renewable energy has been completed, and we are committed to sustainable mining business management by thoroughly reducing environmental impact, including the electrification of heavy machinery and using seawater for operational water.
- To address the medium- to long-term increase in demand and enhance cost competitiveness, we will focus on maintaining mineral resources and exploring opportunities for future expansion.
- We will continue to maintain and promote operations and infrastructure development in compliance with local laws and regulations, while prioritizing environmental resilience and the safety and health of employees and local communities.

[Physical risk response]

- We are working to realize project design and operation that takes account of a wide range of risk including natural disasters.
- We are working on a range of measures to avoid or mitigate direct damage to buildings or other assets.
- Property damage insurance and business interruption insurance, depending on the business, are procured for each building or asset.

Financial information

Metals & Mineral Resources Division

- Relevant segment net profit (FYE 3/2025): approx. ¥123.5 billion (including net profit of approx. ¥20.7 billion by Marubeni LP Holding*)
- Exposure (as of March 31, 2025): approx. ¥460.0 billion for copper mine investment business

* Chile-based Group company managing investments in copper business

Iron Ore Mine and Coking Coal Mine Investment Business

Business environment overview (Transition risks/opportunities, physical risks/opportunities, time horizons (short-term, medium-term, long-term))

■ Baseline scenarios

[Opportunities]

- Short to long term: Steel production is expected to grow steadily as populations and economies expand, with existing blast furnace production at a consistent level.
- Medium to long term: The promotion of decarbonization is anticipated to drive an increase in demand for high-grade iron ore and direct reduced iron (DRI).
- Short to long term: Coking coal demand is expected to remain stable due to increased steel demand driven by population growth and economic expansion, as well as the continued use of imported coking coal for blast furnace production at a consistent level.

[Transition risks]

- The potential for increased costs of fuels, materials, and other resources due to the introduction of new regulatory frameworks, such as carbon taxes or emissions trading schemes

[Physical risks]

- The potential for disruptions to mining operations and transportation due to extreme weather events such as droughts, heavy rainfall, or snowfall

■ Transition scenarios

[Opportunities]

- Short to long term: Steel production is expected to either remain steady or increase as populations and economies grow.
- Medium to long term: The promotion of decarbonization is anticipated to drive an increase in demand for high-grade iron ore and direct reduced iron.
- Short to long term: Coking coal supply is expected to decrease due to delays in new development and expansion plans, driven by reduced demand resulting from the promotion of decarbonization. As a result, the competitiveness of our assets will be maintained. Additionally, demand for decarbonization solutions, such as Carbon dioxide Capture and Storage (CCS), is expected to increase.

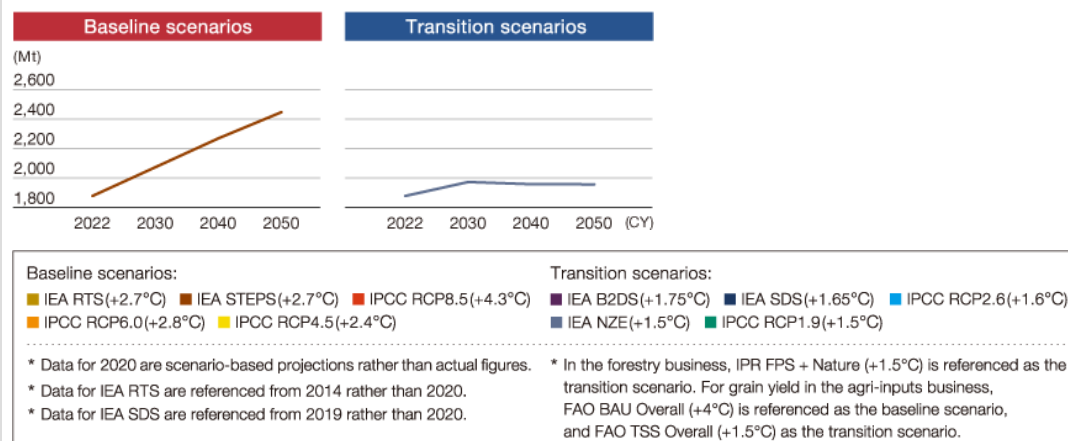
[Transition risks]

- Medium to long term: The shift from blast furnaces to electric arc furnaces, along with the development of new technologies (such as using scrap in large blast furnaces and utilizing hydrogen in blast furnace hydrogen reduction), are being pursued to achieve carbon neutrality in the steel industry.
- Medium to long term: The rise in the share of electric arc furnaces is expected to decrease the demand for iron ore used in blast furnaces and coking coal.
- Medium to long term: The rising difficulty of investment in the coking coal supply side is expected to weaken the stability of supply.

[Physical risks]

- The potential for disruptions to mining operations and transportation due to extreme weather events such as droughts, heavy rainfall, or snowfall

Steel production



Financial implications [medium-term]

Iron ore	→ Positive(Low)	Led by the iron ore mining business in Australia, we expect a positive impact on earnings due to rising demand.
Coking coal	→ Neutral	Under the baseline scenarios, coking coal demand is expected to remain stable. Under the transition scenarios, while a decline in demand for coking coal is anticipated, a certain level of blast furnace production is expected to continue, leading to a limited impact on earnings.

Policies and initiatives

Iron ore

- Going forward, while closely monitoring trends in the steel industry's transition to carbon neutrality, we will seize the growing demand for steel driven by population growth and economic expansion, contributing to the stable supply of iron ore through our iron ore mining business in Australia.
- To address the medium- to long-term increase in demand and strengthen cost competitiveness, we will focus on replenishing mineral reserves, exploring opportunities for future expansion and pursuing the potential for a direct reduction iron business.
- We will continue to maintain and promote operations and infrastructure development in compliance with local laws and regulations, while prioritizing environmental resilience and the safety and health of employees and local communities.

Coking Coal

- In the future, while closely monitoring trends in the steel industry's carbon neutrality efforts and the global supply-demand environment for coking coal, we will work to strengthen the competitiveness of our coking coal assets and strive to ensure a stable supply to customers.
- At the same time, we will continue to reduce the carbon intensity of our coking coal operations and focus on providing decarbonization solutions such as CCS, contributing to the resolution of societal challenges related to decarbonization and low-carbon goals.
- We will continue to maintain and promote operations and infrastructure development in compliance with local laws and regulations, while prioritizing environmental resilience and the safety and health of employees and local communities.

[Physical risk response]

- We are working to realize project design and operation that takes account of a wide range of risk including natural disasters.
- We are working on a range of measures to avoid or mitigate direct damage to buildings or other assets.
- Property damage insurance and business interruption insurance, depending on the business, are procured for each building or asset.

Financial information

Metals & Mineral Resources Division

- Relevant segment net profit (FYE 3/2025): approx. ¥123.5 billion
(including net profits of approx. ¥42.7 billion by Marubeni Resources Development* and ¥24.7 billion by the Roy Hill Iron Ore Project)
- Exposure (as of March 31, 2025): approx. ¥100.0 billion for coking coal mine investment business and approx. ¥170.0 billion for iron ore mine investment business

* Australia-based Group company managing investments in steelmaking material business

Aircraft Leasing Business (Aircastle)

Business environment overview (Transition risks/opportunities, physical risks/opportunities, time horizons (short-term, medium-term, long-term))

■ Baseline scenarios ■ Transition scenarios

* The risks and opportunities of the airline customers, as outlined below, may impact on the lease demand and profitability of this business.

[Opportunities]

- Short to long term: The demand for air travel is anticipated to steadily grow, with the gradual introduction of new aircraft with lower environmental impact.
- Short to long term: Technological advancements in aircraft equipment are expected to improve fuel efficiency, resulting in progress in fuel cost reduction.
- Medium to long term: The stable supply of aviation fuels with lower environmental impact, such as Sustainable Aviation Fuel (SAF), is expected to advance, resulting in a reduction of environmental management costs.

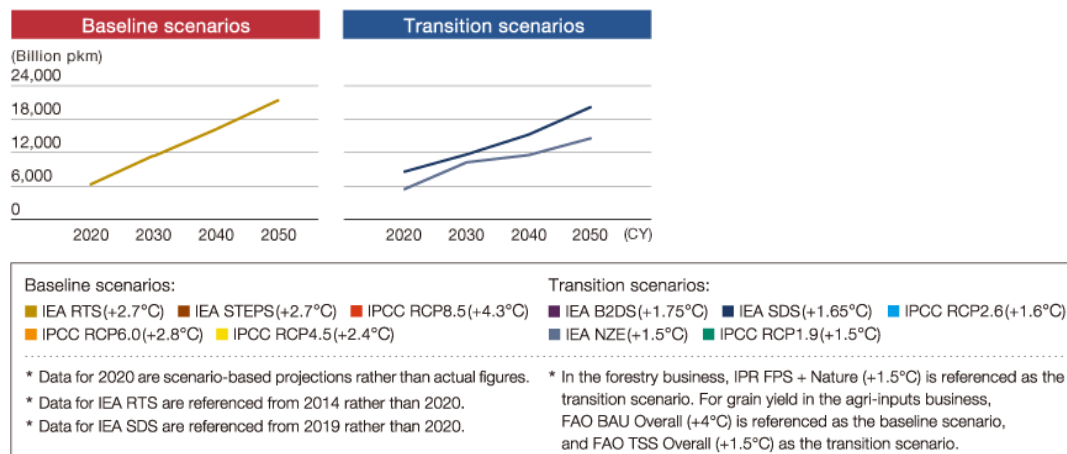
[Transition risks]

- Short to long term: The tightening of GHG emissions regulations is expected to result in increased costs due to the replacement of aircraft with newer models and the purchase of environmental credits.
- Medium to long term: A certain decrease in air travel by passengers is expected due to changes in people's behavior.
- Medium to long term: Impact on financial performance due to supply shortages, regional imbalances, and high prices resulting from delays in the development, production, and adoption of SAF.
- Medium to long term: Delays in responding to climate change may affect consumer awareness, leading to a decline in demand for air travel. Additionally, the modal shift in domestic and short-distance transportation may result in reduced demand for aviation.

[Physical risks]

- Short to long term: The worsening of extreme weather events and major natural disasters could lead to a decrease in passenger numbers and an increase in flight cancellations, negatively impacting revenue.
- Short to long term: The costs for recovering aircraft and facilities damaged by disasters are expected to increase, along with rising capital investment costs for disaster preparedness and mitigation measures.

Distance transported by air



Financial implications [medium-term]

Positive(Med) With demand expected to grow even under the transition scenarios, we expect a positive impact on earnings as we seek to mitigate environmental impact.

Policies and initiatives

- Based on the projected growth in air passenger demand in the medium and long term, our business management policy focuses on handling new aircraft models with lower environmental impact, aiming to expand revenue.
- Since the introduction of emission regulations and carbon pricing in the airline industry could affect the industry environment, we will closely monitor future developments.

Financial information

Finance, Leasing & Real Estate Business Division

- Relevant segment net profit (FYE 3/2025): approx. ¥59.1 billion (including net profit of approx. ¥19.9 billion by Aircastle)
- Exposure (as of March 31, 2025): approx. ¥235.8 billion for Aircastle (carrying amount of equity interests)

Ship Business

Business environment overview (Transition risks/opportunities, physical risks/opportunities, time horizons (short-term, medium-term, long-term))

■ Baseline scenarios ■ Transition scenarios

[Opportunities]

- Short to long term: Maritime transport volume will continue to increase in tandem with global economic growth and population growth.
- Short to medium term: The need to transition to fuel-efficient ships or next-generation low-carbon fuel ships is expected to create more opportunities for ship brokerage and the sale of fuel efficiency enhancement devices.
- Medium to long term: As power generation fuels become increasingly decarbonized, the maritime transport volume of clean energy sources such as ammonia and hydrogen, along with LNG used as a transition and backstop fuel, is expected to expand. Furthermore, the demand for vessels supporting offshore wind power, including those for installation and maintenance, is likely to rise.

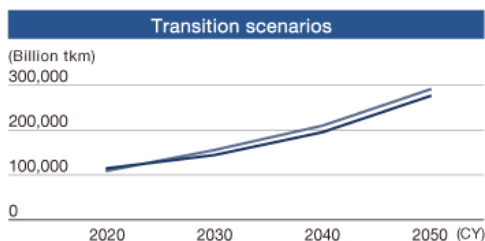
[Transition risks]

- Medium to long term: The introduction of carbon taxes and stricter environmental regulations is expected to drive up operating costs, while the market competitiveness of older, less fuel-efficient vessels will gradually diminish.

[Physical risks]

- No specific remarks

Distance transported by vessel



Baseline scenarios:

■ IEA RTS(+2.7°C) ■ IEA STEPS(+2.7°C) ■ IPCC RCP8.5(+4.3°C) ■ IEA B2DS(+1.75°C) ■ IEA SDS(+1.65°C) ■ IPCC RCP2.6(+1.6°C)

■ IPCC RCP6.0(+2.8°C) ■ IPCC RCP4.5(+2.4°C)

Transition scenarios:

■ IEA B2DS(+1.75°C) ■ IEA SDS(+1.65°C) ■ IPCC RCP2.6(+1.6°C)

■ IEA NZE(+1.5°C) ■ IPCC RCP1.9(+1.5°C)

* Data for 2020 are scenario-based projections rather than actual figures.

* Data for IEA RTS are referenced from 2014 rather than 2020.

* Data for IEA SDS are referenced from 2019 rather than 2020.

* In the forestry business, IPR FPS + Nature (+1.5°C) is referenced as the transition scenario. For grain yield in the agri-inputs business, FAO BAU Overall (+4°C) is referenced as the baseline scenario, and FAO TSS Overall (+1.5°C) as the transition scenario.

Financial implications [medium-term]



Positive(Med)

As environmental regulations tighten, the replacement of older vessels with newer, fuel-efficient ships, improvements in fleet deployment efficiency, and the adoption of energy-saving technologies in existing vessels will contribute to better fuel efficiency and increased profits.

Policies and initiatives

- We will view the growth in maritime transport demand as a business opportunity, working to expand our operations and boost profitability.
- While considering environmental regulations, customer needs, and market trends, we will replace older vessels with newer, fuel-efficient ships, improve fleet deployment efficiency, and introduce energy-saving technologies in existing vessels to enhance fuel efficiency.
- Although next-generation fuel ships are still in development, we will focus on growth opportunities in new business ventures related to these ships and new fuel transport vessels, considering long- to medium-term demand, technological advancements, and price trends.
- By focusing on “decarbonization, operational optimization, and labor reduction,” we will engage in and expand into new business areas through the use of new technologies.

Financial information

Aerospace & Mobility Division

- Relevant segment net profit (FYE 3/2025): approx. ¥51.4 billion
- Relevant segment assets (as of March 31, 2025): approx. ¥731.9 billion

Agri-Inputs Business (North America)

Business environment overview (Transition risks/opportunities, physical risks/opportunities, time horizons (short-term, medium-term, long-term))

■ Baseline scenarios

[Opportunities]

- Short to long term: Global grain demand is expected to rise.
- Short to long term: In line with rising grain demand, cultivation area is also expected to expand by converting land from other applications.
- Medium to long term: In North America, it is expected that the cultivable period will be extended mainly in the western and southern regions due to the rise in temperature.
- Medium to long term: Overall, there are many regions with precipitation increases, and this tendency is more remarkable in the baseline scenarios.

[Transition risks]

- Medium to long term: The water stress across North America is expected to be high in the western region, but relatively low in the eastern region.

[Physical risks]

- Medium to long term: Poor harvests due to the change of climate patterns in North America, our main areas, could have significant impact on earnings of our agri-inputs business.
- Medium to long term: The worsening of extreme weather conditions could disrupt logistics functions, potentially impacting business operations.

■ Transition scenarios

[Opportunities]

- Short to long term: As global grain demand is expected to increase, grain yields are also anticipated to grow through environmentally sustainable production methods driven by technological innovations, including research and development investments.
- Short to long term: In line with rising grain demand, cultivation area is also expected to expand by converting land from other applications.
- Medium to long term: In North America, it is expected that the cultivable period will be extended mainly in the western and southern regions due to the rise in temperature.

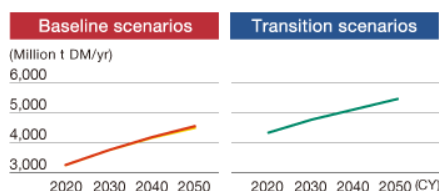
[Transition risks]

- Medium to long term: Overall, there are many regions with precipitation increases, but it will tend to decline in the southwestern and central regions.
- Medium to long term: The water stress across North America is expected to be high in the western region, but relatively low in the eastern region. However, its impact will be smaller than the one in baseline scenarios.

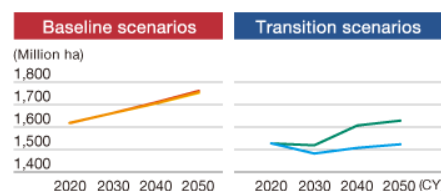
[Physical risks] (The impact of the following two points is expected to be lower than in the baseline scenarios.)

- Medium to long term: Poor harvests due to the change of climate patterns in North America, our main areas, could have significant impact on earnings of our agri-inputs business.
- Medium to long term: The worsening of extreme weather conditions could disrupt logistics functions, potentially impacting business operations.

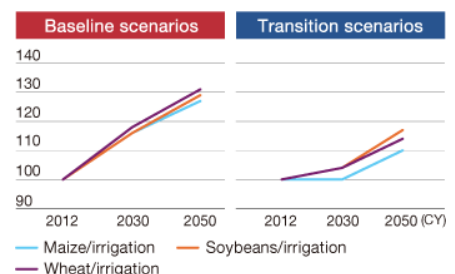
Grain demand



Cultivation area



Grain yield (index with 2012 yield set as 100)



Baseline scenarios:

- IEA RTS(+2.7°C) ■ IEA STEPS(+2.7°C) ■ IPCC RCP8.5(+4.3°C)
- IPCC RCP6.0(+2.8°C) ■ IPCC RCP4.5(+2.4°C)

Transition scenarios:

- IEA B2DS(+1.75°C) ■ IEA SDS(+1.65°C) ■ IPCC RCP2.6(+1.6°C)
- IEA NZE(+1.5°C) ■ IPCC RCP1.9(+1.5°C)

* Data for 2020 are scenario-based projections rather than actual figures.

* Data for IEA RTS are referenced from 2014 rather than 2020.

* Data for IEA SDS are referenced from 2019 rather than 2020.

* In the forestry business, IPR FPS + Nature (+1.5°C) is referenced as the transition scenario. For grain yield in the agri-inputs business, FAO BAU Overall (+4°C) is referenced as the baseline scenario, and FAO TSS Overall (+1.5°C) as the transition scenario.

Financial implications [medium-term]



Positive(Low)

We expect a positive impact on our earnings due to rising grain demand. In the transition scenarios, the need for higher crop yields could bring fast growth to our agri-inputs business.

Policies and initiatives

- Expand the agricultural support business by developing agri-input materials and providing services that contribute to enhancing productivity.
- To reduce physical risks associated with the impact on logistics functions due to the increase and intensification of natural disasters, we will diversify products and services, and respond to water stress by expanding networks in relatively unaffected regions.
- We will comprehensively manage risks by geographically diversifying and expanding the procurement and sales network, and diversifying products and services.

Financial information

Food & Agri Business Division

- Relevant segment net profit (FYE 3/2025): approx. ¥68.9 billion (including net profit of approx. ¥39.1 billion by Helena Agri-Enterprises*)
- Relevant segment assets (as of March 31, 2025): approx. ¥2,474.7 billion

* Group company engaged in sales of agricultural materials and provision of various services in the U.S.

Forestry Business

Business environment overview (Transition risks/opportunities, physical risks/opportunities, time horizons (short-term, medium-term, long-term))

■ Baseline scenarios

[Opportunities]

- Medium to long term: While forest area is projected to slightly decrease, yield per hectare is expected to gradually increase, especially in Southeast Asia.
- Short to long term: Carbon pricing systems in certain countries and the trading of voluntary carbon credits are bringing attention to CO₂ capture and sequestration. Within international climate change initiatives, there is a growing push to encourage CO₂ capture and sequestration efforts throughout supply chains.

[Transition risks]

- Short to long term: Rising fire insurance premiums due to the impacts of climate change, along with the implementation of related measures aimed at mitigating climate change, such as the mandatory use of biodiesel and the adoption of electric vehicles

[Physical risks]

- Medium to long term: The occurrence of wildfires, pest outbreaks, and other challenges resulting from extreme temperature increases, prolonged dry seasons, and more frequent lightning strikes due to climate change.

■ Transition scenarios

[Opportunities]

- Medium to long term: The demand for wood-derived biomass fuels is expected to increase.
- Medium to long term: The implementation of policies to curb deforestation and degradation, along with efforts to promote forest restoration, is expected to lead to an expansion in forest areas, including protected areas.
- Medium to long term: With the acceleration and strengthening of carbon pricing implementation from 2030 onwards, the importance of CO₂ capture and sequestration through methods such as afforestation is expected to increase beyond current levels. Approaches like environmental conscious afforestation, bioenergy use, and storage (BECCS : Bioenergy with Carbon Capture and Storage) are anticipated. With increased investment in CO₂ capture and sequestration projects and the active trading of captured and sequestered CO₂ volumes, the forestry business will also need to shift toward providing value beyond just the supply of wood resources.

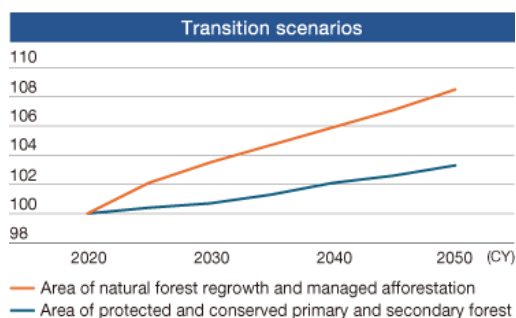
[Transition risks]

- Short to long term: Rising fire insurance premiums due to the impacts of climate change, along with the implementation of related measures aimed at mitigating climate change, such as the mandatory use of biodiesel and the adoption of electric vehicles

[Physical risks]

- Medium to long term: The occurrence of wildfires, pest outbreaks, and other challenges resulting from temperature increases, prolonged dry seasons, and more frequent lightning strikes due to climate change

Forest area (Forest area index, with the 2020 forest area set as 100)



Baseline scenarios:

■ IEA RTS(+2.7°C) ■ IEA STEPS(+2.7°C) ■ IPCC RCP8.5(+4.3°C) ■ IEA B2DS(+1.75°C) ■ IEA SDS(+1.65°C) ■ IPCC RCP2.6(+1.6°C)
 ■ IPCC RCP6.0(+2.8°C) ■ IPCC RCP4.5(+2.4°C) ■ IEA NZE(+1.5°C) ■ IPCC RCP1.9(+1.5°C)

Transition scenarios:

■ IEA B2DS(+1.75°C) ■ IEA SDS(+1.65°C) ■ IPCC RCP2.6(+1.6°C)
 ■ IEA NZE(+1.5°C) ■ IPCC RCP1.9(+1.5°C)

* Data for 2020 are scenario-based projections rather than actual figures.

* Data for IEA RTS are referenced from 2014 rather than 2020.

* Data for IEA SDS are referenced from 2019 rather than 2020.

* In the forestry business, IPR FPS + Nature (+1.5°C) is referenced as the transition scenario. For grain yield in the agri-inputs business, FAO BAU Overall (+4°C) is referenced as the baseline scenario, and FAO TSS Overall (+1.5°C) as the transition scenario.

Financial implications [medium-term]

Positive(Med)

Under the baseline scenarios, the reduction in forest area could lead to an increase in the value of existing afforestation assets. Under the transition scenarios, climate change measures will improve forest value, and the expansion of forest area will increase opportunities for business expansion, which will have a positive impact on earnings.

Policies and initiatives

- With an understanding of the challenges associated with reforestation, we will pursue opportunities not only in the traditional use of forest resources but also in areas such as the establishment of carbon credit programs through carbon absorption and sequestration by forests.
- In addition to appropriate management of two projects in two countries overseas with around 120,000 hectares of forest (total gross project area around 300,000 hectares), we are engaged in research into forest resource utilization in anticipation of the decarbonized society of the future.
- By raising the carbon sequestration of our afforestation areas and managed forests and utilizing the plantation forests for multiple purposes, we will boost carbon sequestration volumes, increase environmental value, and lead to the building of asset value.
- To address the threat from wildfires, we are installing fire-fighting equipment, investing in systems for fire prevention and monitoring, and conducting activities to raise awareness in local communities. We are installing meters-wide firebreaks (gaps where trees are not planted) to help create separate blocks of plantation forest to better prevent fire from spreading.

Financial information

Lifestyle Division

- Relevant segment net profit/loss (FYE 3/2025): net loss of approx. ¥29.5 billion (including net profits of approx. ¥4.3 billion by Musi Pulp Project^{*1} and approx. ¥2.3 billion by WA Plantation Resources^{*2})
- Relevant segment assets (as of March 31, 2025): approx. ¥634.2 billion

^{*1} Indonesia-based Group company engaged in forest plantation business (hardwood plantation) and manufacture/sales of pulp

^{*2} Australia-based Group company engaged in plantation forest management and manufacture/sales of wood chips for use in production of paper and biomass fuels

Power Generation Business (Coal-Fired Power Generation / Gas-Fired Power Generation / Renewable Energy Power Generation) ✓	Energy Resource Investment Business (Oil/Gas/LNG) and Alternative Energy Business ✓	Copper Mine Investment Business ✓	Iron Ore Mine and Coking Coal Mine Investment Business ✓
Aircraft Leasing Business (Aircastle) ✓	Ship Business ✓	Agri-Inputs Business (North America) ✓	Forestry Business ✓

Financial Implications [Current] [Short Term]

Based on the financial results for the fiscal year ended March 31, 2025, an assessment was conducted on the financial implications (impact on financial position, financial performance, and cash flows) of climate-related risks (cash flows, its access to finance or cost of capital that could reasonably be expected to affect the Marubeni Group) in the current period (1. total assets: ¥9,202.0 billion, 2. net profit: 503.0 billion, 3. core operating cash flow^{*1}: ¥606.6 billion) and the short term (up to 3 years). This assessment, based on climate-related “transition risks” and “physical risks,”^{*2} concluded that the direct impact on the Marubeni Group within the current and short-term time horizon is less than 1% in each of the categories 1.–3., indicating that the impact is limited.

^{*1} Core operating cash flow: Operating cash flow excluding net increase/decrease in working capital and others

^{*2} Climate-related “transition risks” related to the risks arise from efforts to transition to a lower-carbon economy, including policy, legal, technological, market, and reputational risks. “Physical risks” refer to the risks resulting from climate change that can be event-driven (acute physical risk) or from longer-term shifts in climatic patterns (chronic physical risk).

In assessing “transition risks,” we conducted calculations based on the trends in policies and laws related to carbon pricing in major countries where it has already been implemented. The calculations considered businesses that fall under carbon pricing systems currently in place or expected to be introduced within the next three years (short term) in the countries where the business operates, and where the risk of changes to these systems has not been hedged. As a result, the current financial implications are less than 1%, and even if the carbon pricing rate used for the calculation doubles within the short-term time horizon, the impact is still expected to be less than 1%.

As for the financial implications of “physical risks,” the impact in the current and short-term periods is limited. However, the Marubeni Group has implemented various risk mitigation measures in response to these risks. These measures include assessing potential impacts on business base facilities, logistics, and supply chains at each business site, developing Business Continuity Plans (BCP), disaster prevention strategies, subscribing to various insurance policies, and conducting disaster awareness activities for relevant stakeholders (including employees and local communities), such as initiatives for wildfire prevention. For more details, please refer to the “Policies and initiatives” section in the “Scenario Analysis.”

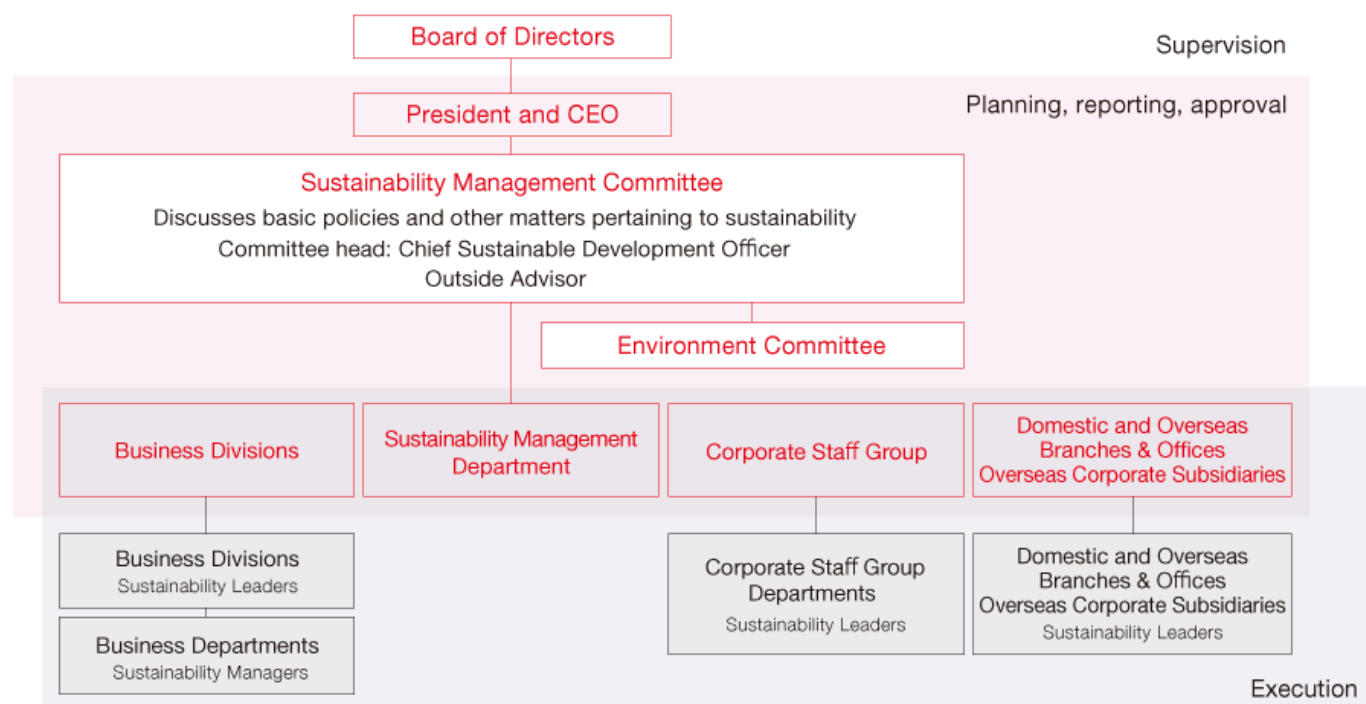
Governance

Our governance structure ensures adequate Board supervision of important sustainability-related issues (policy, targets, action plans, etc.) for the Marubeni Group, which are deliberated and decided by the Corporate Management Committee and the Board of Directors. In the individuals' qualitative evaluation in the compensation system for directors, we consider contributions to the plans and efforts related to sustainability measures. We have put into place a framework to enhance the linkage with director compensation to medium- to long-term corporate value.

The Sustainability Management Committee, which reports directly to the President, holds discussions about a broad range of matters related to sustainability. With regard to climate change measures, for example, it leads the process of evaluating opportunities and risks as identified in our TCFD climate-related disclosure; formulating, revising and monitoring strategy, risk management, metrics and targets; and reviewing progress in climate-related innovation and changes in the external environment. The committee deliberates and reports regularly (at least once a year) on these matters to the Board of Directors. In the fiscal year ended March 31, 2025, the Sustainability Management Committee was held twice and discussed the Mid-Term Management Strategy (GC2024 and the Green Strategy) and TCFD disclosures.

The Sustainability Management Committee is chaired by the Chief Sustainable Development Officer, who is Managing Executive Officer, CSO. Outside advisor is also a member of the committee in an advisory role to support the management and supervision of sustainability-related matters from an independent external perspective.

Sustainability Management Organization



Risk Management

The Marubeni Group manages and monitors high-priority risks and opportunities from the perspective of sustainability—including aspects related to climate change, natural capital, and supply chain management—through the Sustainability Management Committee.

We have developed an assessment framework to support the multifaceted analysis of 27 items across the three risk categories (environmental, health and safety, and social). In addition, we assess the importance and impact of potential risks in each assessment category. We use this risk assessment approach in sustainability survey methods within the Group and for our suppliers, as a part of the process used to make any investment and financing decisions. Besides monitoring existing businesses, we use this approach to gauge the value of Group businesses on an ongoing basis from a sustainability perspective.

Regarding the significant impacts of climate change, the Marubeni Group leverages various scenario analyses, including those developed by the IEA, to identify high-risk situations. In such cases, we consider factors such as projected GHG emission reduction plans, decarbonization strategies in project host countries, and alignment with long-term climate change visions. These evaluations, alongside climate-related risks, opportunities, and business priorities, inform our investment and financing decisions. Business domains with high risks, including those related to the impacts of climate change, are deliberated by the Investment and Credit Committee, the Corporate Management Committee, and the Board of Directors as needed. The status of these risk management systems is reported to the Board of Directors during the annual review of the basic policy for internal control to evaluate their effectiveness.

Regarding climate-related “physical risks,” the Marubeni Group continuously evaluates the effectiveness of individual measures and works to establish a system that can address all potential crises. In April 2022, the Marubeni Group updated its Business Continuity Plan (BCP) from a scenario-based approach to an All-Hazards BCP, an impact-based approach preparing for natural disasters and other calamities. To ensure the effective functioning of the BCP and to establish and promote the Business Continuity Management (BCM) system, the Marubeni Group has set up a dedicated organization within the General Affairs Department of the Head Office. This system is designed to respond swiftly in the event of a disaster affecting employees, systems, offices (buildings), payment functions, or other critical resources related to the management of Group companies, with the highest priority given to ensuring the safety of human lives.

Risk Assessment Items in Business (27 Items Across 3 Categories)

Environmental	Climate change / Environmental pollution / Biodiversity / Resource management / Mitigation measures and administrative procedures (environmental)
Health & Safety	Machine safety / Fires and explosions / Toxic substance exposure / Infection / Hazardous operations / Mitigation measures and administrative procedures (health & safety)
Social	Forced labor and human trafficking / Child labor / Working hours / Wages and employment contracts / Discrimination / Harassment at work and disciplinary measures / Respect for diversity / Freedom of association and the right to collective bargaining / Land issues / Negative social impact on local communities / Indigenous peoples and cultural heritage / Conflict minerals / Privacy / Animal welfare / Responsible marketing / Mitigation measures and administrative procedures (social)

Metrics and Targets

Climate Related Metrics and Targets

The Marubeni Group has formulated the following metrics and targets as part of our response to its climate-related risks and opportunities.

Metrics and targets	Results						
Achieve net-zero GHG emissions*¹ by 2050 By 2030: (1) Reduction of 50% in Scope 1 & 2 CO₂ emissions from FYE 3/2020 level (about 1 million t-CO₂) (2) Reduction of 20% in Scope 3 CO₂ emissions (Category 15: Investments) from FYE 3/2020 level (estimated CO₂ emissions about 36 million t-CO₂*²) *¹ Includes Scope 1, Scope 2, and Scope 3 (Category 15: Investments) emissions. *² This emissions volume comprises the FYE 3/2020 performance of existing investees plus the estimated emissions from projects already contracted as of March 2021 (as for power generation projects, projects for which associate investees of the Marubeni Group have entered into power purchase agreements but have not yet achieved the commercial operations).	(1) Scope 1 & 2 CO₂ emissions: 1.02 million t-CO₂*³ (FYE 3/2025) (2) Scope 3 CO₂ emissions (Category 15: Investments): 24 million t-CO₂e (FYE 3/2025) Breakdown <table> <tr> <td>Power generation*⁴</td><td>21 million t-CO₂e</td></tr> <tr> <td>Resource projects</td><td>2 million t-CO₂e</td></tr> <tr> <td>Other businesses</td><td>1 million t-CO₂e</td></tr> </table> *³ The combined value of Scope 1 and Scope 2 does not include non-energy-related GHG emissions (6.5 gas). Numbers below the unit are rounded for display. *⁴ Results exclude estimated emissions from projects that have entered into power purchase agreements but have not yet achieved the commercial operations. Actual emissions after the commencement of commercial operations are reflected in results.	Power generation* ⁴	21 million t-CO ₂ e	Resource projects	2 million t-CO ₂ e	Other businesses	1 million t-CO ₂ e
Power generation* ⁴	21 million t-CO ₂ e						
Resource projects	2 million t-CO ₂ e						
Other businesses	1 million t-CO ₂ e						
Cut Group's coal-fired power net generation capacity from FYE 3/2019 value of approx. 3 GW in half by 2025, with further abatement to approx. 1.3 GW by 2030, and aim for zero capacity by 2050	Approx. 1.8 GW (as of March 31, 2025)						

* For the emissions data of Scope 1 to 3, please refer to the [Environmental Data](#).

* The actual values for Scope 1, Scope 2, and Scope 3 Category 15 (Investments) have received third-party assurance. For further details, please refer to the [Environmental Data](#).

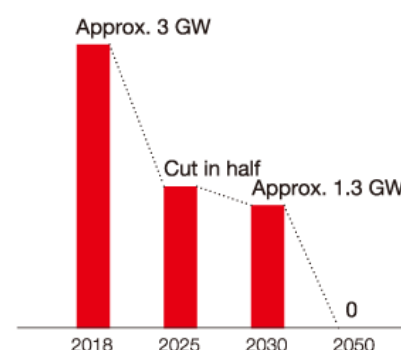
Policy for Coal-Related Business

Initiatives for Coal-Fired Power Generation Business

In 2018, Marubeni announced business policies in relation to the coal-fired power generation business, and announced it would not engage in any new coal-fired power generation projects. We will continue to consider our management policies regarding coal-fired power generation projects that have already been contracted to fulfill our responsibilities to host countries and other stakeholders. At the same time, we will accelerate our decarbonization process by contributing to energy policies of host countries aimed at achieving decarbonization. We expect to achieve our reduction targets for net power generation capacity in accordance with the completion of power purchase agreements.

[Business Policies for Our Coal-Fired Power Generation Business and Renewable Energy Power Business](#)  [50KB]

Group's Coal-Fired Power Net Generation Capacity



Initiatives for Equity Interests in Thermal Coal

In 2020, Marubeni established a policy on thermal coal equity interests, stating that it does not hold any such interests and will not acquire any in the future.

Internal Carbon Pricing (ICP)

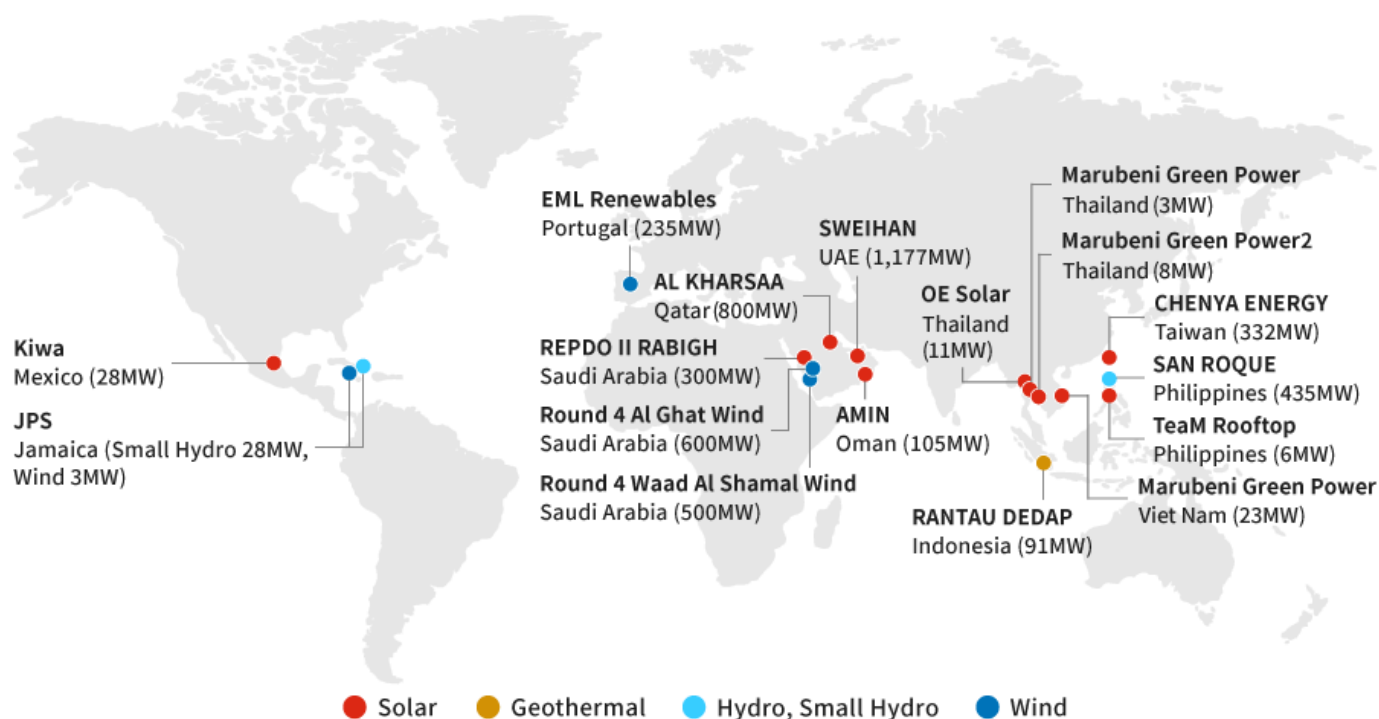
Regarding the potential impact of a carbon tax and carbon prices in emissions trading on its businesses, the Marubeni Group quantifies and visualizes future GHG impacts. The Group sets an internal carbon price (Internal Carbon Pricing, ICP) based on estimated GHG emissions and the price of emissions credits (such as EU ETS^{*1}) when investment and financing projects are submitted for approval. The average annual carbon price used for estimates in the fiscal year ended March 31, 2025, was approximately €86/t-CO₂.

^{*1} EU Emissions Trading System

Initiatives

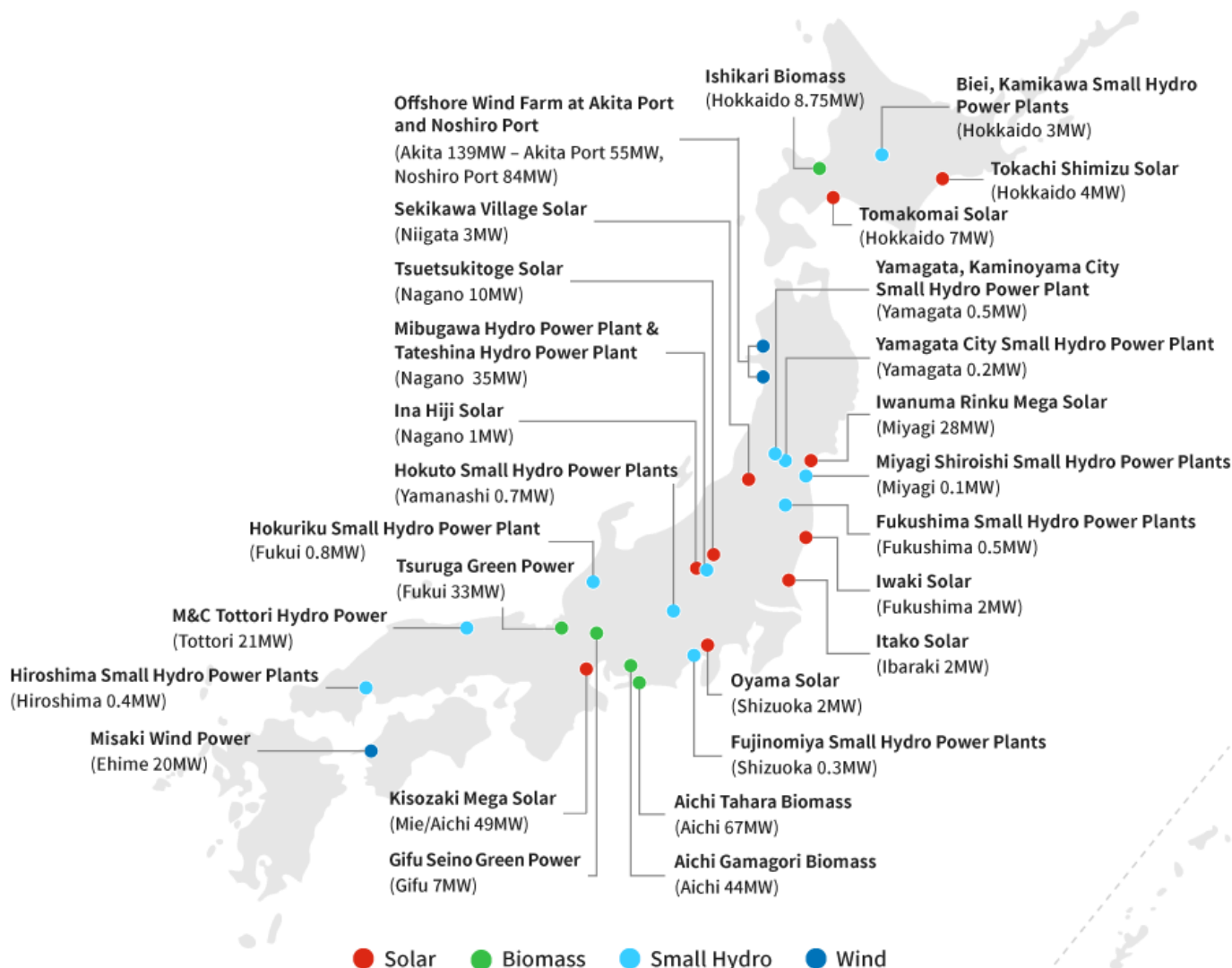
Initiatives for Renewable Energy Power Projects

In order to work toward a low-carbon society that mitigates the effects of climate change as part of sustainable development goals, Marubeni is actively pursuing and expanding renewable energy power projects.



Initiatives for Small Hydropower, Solar, Wind and Biomass Power Generation

Throughout Japan, in addition to the development of small hydropower generation projects, the Marubeni Group is actively working on generation of renewable energy that contributes to conservation of the global environment and biodiversity.



Initiatives for Small Hydropower Generation Business

Since 2000, Marubeni has been conducting small-scale hydropower generation business through its Group company, Mibugawa Power Company, rooted in coexistence and mutual prosperity with local communities and living in harmony with nature.

“Small hydropower generation” is a term used to refer to small-scale hydropower generation projects with output of less than 1,000 kW. These projects do not require the use of dams or other facilities that entail large-scale construction projects, but rather generate power by utilizing rivers or agricultural irrigation canals, thus minimizing the development footprint. The environmental impact on water quality and the water habitat is exceptionally low, and there is no impact on land features or scenic beauty. Once up and running, CO₂ emissions during operation are extremely low, thereby offering benefits in terms of minimal impact on biodiversity and environmental conservation. As this business utilizes natural energy sources, consideration for the environment is essential, such as maintenance of water quality, waste reduction, conservation of energy, resources, and other local environment. The intake of Mibugawa Power Station No. 2, which is located at the highest elevation, is next to a national park, and the facilities of the power station are in a region with high biodiversity value, we strive not only to avoid destruction of nature, but also to preserve it. To address such environmental challenges, in addition to conducting river cleanup activities, facility maintenance and emergency response training to be prepared for possible oil spills, Mibugawa Power Company takes measures for protection of biodiversity by conducting water quality inspections twice a year, not only to determine whether pollutants are present, but also to check whether the water has the oxygen content required by living organisms.



Tateshina Power Station No. 4 (Chino City, Nagano Prefecture)



Small hydropower station (Hokuto City, Yamanashi Prefecture)

Collaborating with Stakeholders and Coexistence with Local Community

Initiatives for the Sequestration, Capture, and Storage of Carbon Dioxide

Marubeni is an investor in Japan CCS Co., Ltd., which was established in May 2008, in response to the Japanese government's call for the development of CCS^{*1} technologies as a countermeasure to global warming. It was founded by major private-sector firms with expertise in CCS-related fields joining forces to meet the new demands. As a private-sector corporation that brings together and integrates CCS technologies, the company conducts surveys on how to commercialize technologies for the separation, capture, transport, and geological storage of CO₂, as well as R&D and testing in these fields.

*1 CCS is an acronym for Carbon dioxide Capture and Storage and refers to the capture and storage of carbon dioxide (CO₂). Specifically, it involves technologies for capturing CO₂ emitted by factories, power plants and the like before it is released into the atmosphere, transporting it to underground geological strata suited to storing it, and storing it in a stable manner over long periods of time.

➤ Japan CCS Co., Ltd. 

➤ Shareholders 

Coexistence with Local Community

Mibugawa Power Company is also advancing initiatives to utilize small-scale hydropower generation business as a technology for realizing local production for local consumption of energy, contributing to the region's self-sustaining development.

At the Murayamarokkamuraseki- Waterfarm, Hokuto City, Yamanashi Prefecture and Mibugawa Power Company jointly operates the four hydro power stations comprising the waterfarm: the Hokuto Nishizawa Power Station, Hokuto Murayamarokkamuraseki Hydropower Station (municipally-owned), Hokuto Kawakoishi Power Station and Hokuto Kurabara Power Station). The waterfarm uses existing irrigation canals to supply renewable energy while making appropriate adjustments to the volume of water for farmland and household use. Furthermore, aiming to be power producer that coexists with the community, the company strives to realize its projects with the understanding and cooperation of local organizations and stakeholders. This is achieved through events for residents focused on environmental themes, dispatching lecturers, and deepening understanding of the history of the planned sites.

At the small hydropower station in Shiroishi City, Miyagi Prefecture, the elevation difference in water pipes of water supply facilities is used to generate electricity with minimal impact on the surrounding environment.

In addition, in selling power through Marubeni Power Retail Corporation, we are helping to improve biodiversity by allocating a portion of the electricity fees to forest maintenance and management.

M&C Tottori Hydro Power Co., Ltd. (hereafter, M&C Tottori Hydro Power) believes that building a trusting relationship through communication with local residents is essential for the safe, secure, and stable operation of hydroelectric power generation projects. To this end, M&C Tottori Hydro Power has appointed a “staff member in charge of community coexistence” and has made efforts to reflect residents’ opinions of its operations on its website. In addition, the company regularly communicates with local stakeholders, including six local municipalities (Wakasa, Yazu, Kurayoshi, Misasa, Nichinan and Hino) and various councils on important issues related to the environmental impacts, e.g., on rivers, that may arise from construction, inspections, etc. Thanks to these initiatives, M&C Tottori Hydro Power understands each municipality’s needs (including complaints) and business risks and incorporates them into its management strategy. In addition, M&C Tottori Hydro Power plans to offer visiting lectures and work experience for elementary and junior high schools on the theme of hydroelectric power generation projects. M&C Tottori Hydro Power contributes to the economic development of the region by improving the knowledge of local residents and linking it to the development of the next generation of human resources.

Marubeni Clean Power Corporation (Marubeni Clean Power) contributes to the realization of a sustainable society by promoting renewable energy through its biomass power generation business. Building on the expertise gained through developments, the company supplies diverse renewable energy sources. Prioritizing the solution of social issues within the region and coexistence with local communities and the natural environment, Marubeni Clean Power is actively involved in interactions with local stakeholders and contribution to the community, such as local environmental fairs and beautification campaigns, conducting power plant tours for local elementary school and junior high school students, etc.

Marubeni Clean Power participates in the “Biomass Power Association” (hereafter, the Association) as a regular member (Director Company) and serves as its representative director. The Association includes not only power generators, but also fuel suppliers, manufacturers, financial institutions, consulting firms, and other stakeholders from various industries. It promotes the biomass power generation business and the sound development of the biomass industry, working to help build a sustainable, recycling-oriented society and foster global environmental conservation.

Environment

Living in Harmony with Nature (Disclosure in Line with the Recommendations of the TNFD)

Disclosure in Line with the Recommendations of the TNFD ▼ | Governance ▼ | Strategies ▼ |

Risk and Impact Management ▼ | Metrics and Targets ▼ | Initiatives ▼ |

Disclosure in Line with the Recommendations of the TNFD

The Marubeni Group is expanding its business on a global level in a wide range of fields. We recognize that each of our business streams has some degree of impact on the natural environment and biodiversity, and that all businesses benefit from nature.

The Marubeni Group believes that for the sustainable development of its businesses, it is critical to appropriately analyze and evaluate the dependencies and impacts on nature related to its businesses, as well as the risks and opportunities arising from them. Additionally, we acknowledge the importance of disclosing nature-related financial information regarding these matters. In January 2024, we endorsed the recommendations of the Taskforce on Nature-related Financial Disclosures (TNFD) and registered as a “TNFD Adopter.”

Furthermore, in March 2022, we participated in the TNFD Forum, an organization which shares the vision and mission of the TNFD and supports their activity.

General Requirements

The general requirements for this disclosure are as follows.

1. Application of Materiality

In addition to financial materiality, the Marubeni Group analyzes and evaluates the impact of its business on natural capital and biodiversity (impact materiality), and discloses information on double materiality basis.

2. Scope of Disclosures

This disclosure is based on the four pillars of the TNFD recommendations: Governance, Strategy, Risk and Impact Management, and Metrics and Targets. In “Strategy,” we disclose the results of the assessment of nature-related issues (dependencies and impacts on nature, risks and opportunities) for all the Marubeni Group’s direct operations and upstream and downstream of the value chain, as well as the results of the assessment of the sensitive location where we operate business (including upstream and downstream of the value chain).

3. Location of Nature-Related Issues

We have organized the upstream and downstream value chains of all Marubeni Group’s businesses, as well as the location of each value chain, and analyzed locations of nature-related issues.

4. Integration with Other Sustainability-Related Disclosures

The Marubeni Group recognizes that various issues related to natural capital and biodiversity, and issues related to climate change are interrelated. We disclose in line with the TNFD and the TCFD (Task Force on Climate-related Financial Disclosures). The Marubeni Group’s sustainability-related disclosures are aggregated in the “Sustainability” section of our website, which discloses our overall approach to sustainability, materiality, and disclosures by topic. In the future, we will strive to expand our disclosures to integrate the TNFD and the TCFD disclosures.

5. Time Horizons Considered

In this disclosure, the time horizon is defined as follows: short-term refers to up to 3 years, medium-term refers to 3 to 10 years, and long-term refers to 10 to 30 years.

6. Engagement of Indigenous Peoples, Local Communities and Affected Stakeholders

The Marubeni Group recognizes the importance of processes for monitoring the potential negative impact of business development and operation on the human rights of all stakeholders who may be indirectly affected by the impact on nature at sites used for business operations and in neighboring areas, and for implementing related management and corrective action. The Marubeni Group supports and respects all international rules on human rights and recognizes that it is of the utmost importance to respect the human rights of all people affected by its business activities and to strive to fulfill its responsibilities. We conduct due diligence on our business investments and operations in accordance with the Marubeni Group Basic Policy on Human Rights. In addition, we work to understand the status of engagement (dialogue) with local communities and strengthen our efforts to respect human rights. For details, please refer to "Governance" below.

Governance

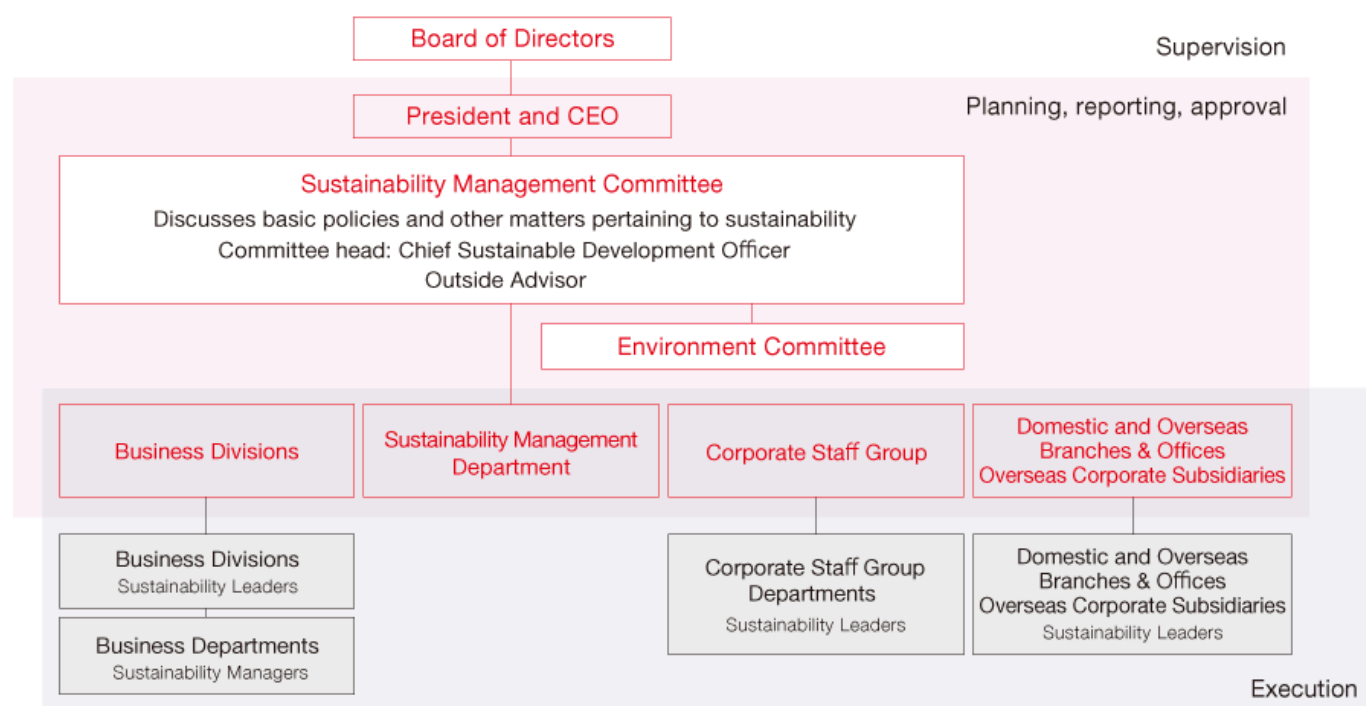
Our governance structure ensures adequate Board supervision of important sustainability-related issues (policy, targets, action plans, etc.) for the Marubeni Group, which are deliberated and decided by the Corporate Management Committee and the Board of Directors. In the individuals' qualitative evaluation in the compensation system for directors, we consider contributions to the plans and efforts related to sustainability measures, etc. We have put into place a framework to enhance the linkage with director compensation to medium- to long-term corporate value. (for more information on our Green Strategy, please refer to "▶ Long-Term Strategy On Nature," below).

The Sustainability Management Committee, which reports directly to the President holds discussions about a broad range of matters related to sustainability. With regard to nature-related responses, the committee deliberates the process of evaluation of dependencies and impacts, risks and opportunities, strategy, risk management, and metrics and targets as identified in the TNFD Recommendations and reports regularly (at least once a year) on these matters to the Board of Directors. Reporting includes progress and results of nature-related metrics and targets, including climate change. In the fiscal year ended March 31, 2025, the Sustainability Management Committee was held twice and discussed the progresses and results of the Green Strategy set out in Mid-Term Management Strategy GC2024 and the TNFD disclosures. The Sustainability Management Committee is chaired by the Chief Sustainable Development Officer, who is Managing Executive Officer, CSO. The chairperson of the Committee is responsible for the promotion of sustainability and related disclosures of the Marubeni Group. Outside advisor is also a member of the committee in an advisory role to support the management and supervision of sustainability-related matters from an independent external perspective.

In line with our initiatives to contribute toward the realization of a nature positive world, and of a society that lives in harmony with nature, the Marubeni Group respects the human rights including the right to a clean, healthy and sustainable environment of all stakeholders who could be indirectly affected by the impact that our businesses and supply chains can have on nature (particularly those stakeholders who are especially vulnerable to environmental degradation, such as indigenous people, local communities, senior citizens, women (in some regions), people with disabilities, children and young people). In particular, we recognize the special importance of stakeholders' right to accurate, relevant information (including their right to exercise free, prior and informed consent), their right to substantive participation in environment-related decision-making (including the right of indigenous people and local communities to self-determination and the prevention of forced relocation), their right to effective relief measures, and the implementation of engagement (dialogue) to support and realize their enjoyment of these rights, and we aim to expand efforts that prioritize these rights. The status of the responses for human rights and engagement is included in regular (at least once a year) reports to the Board of Directors by the Sustainability Management Committee; the system to supervise the status has been established.

We also recognize the importance of the process for monitoring, managing and remedying any negative human rights impacts in the development and operation of projects on site and in the surrounding area. We monitor and assess these risks and impacts at the stage of exploring the potential for new business development. We have formalized and are implementing related internal procedures. We have also instituted an internal process that serves as a grievance mechanism for complaints relating to human rights (redress). This is a formal mechanism that guarantees confidentiality and anonymity, and is available to and covers complaints about human rights violations from any stakeholders (A dedicated contact point for submission of complaints about human rights violations).

Sustainability Management Organization



For details, please refer to “> Policy: Our Approach to the Human Right to a Healthy Environment” and “> Initiatives: Human Rights Due Diligence” under “Respect for Human Rights.”

We recognize that respect for the human rights of stakeholders such as indigenous people and local communities is a vital prerequisite for nature-related initiatives. We strive to promote the widespread adoption of measures that embody respect for human rights through occasional opportunities for the exchange of views with related parties such as representatives of relevant government agencies, authorities and international organizations, and through participation in United Nations Human Rights Forum (including attendance at sessions relating to issues affecting indigenous people), etc.

For details, please refer to “> Policy Recommendation and Lobbying Activities Relating to Nature.”

Regarding nature-related issues, our executives attend policy councils on nature-related issues to speak out and make proposals for reducing environmental impact.

Strategies

Long-Term Strategy on Nature

In accordance with the spirit grounded in “Fairness, Innovation and Harmony,” the Marubeni Group is proudly committed to social and economic development and safeguarding the global environment by conducting fair and upright corporate activities as our Management Philosophy. The Marubeni Group's long-term strategy is to put our management philosophy into practice and to create value and grow by anticipating the challenges of our customers and society and providing solutions.

The challenges faced by customers and society are diverse and constantly evolving. To stay ahead of these changes, the Marubeni Group continues to evolve, using four key aspects of diversity—1. ➤ human capital, 2. ➤ regions, 3. ➤ sectors, and 4. ➤ business models—as an important differentiator. This is a major strength and source of value creation for the Marubeni Group. To further enhance this strength, we have identified the “Fundamental Materiality (1. Human Capital That Creates New Value, 2. Robust Management Foundations, 3. Governance That Supports Coexistence with Society)” and are committed to its continuous strengthening.

The impact of our business on natural capital and biodiversity (impact materiality) is an issue for our customers and society, and by providing solutions, the Marubeni Group will achieve financial impact (financial materiality) in the form of “growth.” Therefore, double materiality and single materiality are inseparable for our Group, and understanding nature-related issues associated with our business is nothing less than exploring growth opportunities for our Group.

The Marubeni Group is committed to anticipating societal issues posed by nature degradation and achieving the international community's goal of nature positive (halting the loss of natural capital and biodiversity and putting it on a recovery path) in accordance with the Kunming-Montreal Global Biodiversity Framework (GBF), while promoting economic transition to a nature positive economy both within and outside of our Group, and we will link this to our own growth. This strategy is based on the Mid-Term Management Strategy (FY2022-2024) GC2024 “Green Strategy” and the Mid-Term Management Strategy (FY2025-2027) GC2027 “Green Initiatives.”

The Green Strategy was formulated as one of the basic policies in GC2024. It is intended to lead to the growth of the Marubeni Group by working together with customers, partners, and other stakeholders to solve social issues related to “Living in Harmony with Nature”, such as decarbonization, transition to a circular economy, and conservation of water resources and biodiversity.

Green Strategy: For details, please refer to ➤ Integrated Report 2023 (P21-22)  [33MB].

To implement our Green Strategy in a field-led manner, we have formulated a Green Strategy for each business division for FY2022. Based on the relationship between business and nature, which varies by sector, this strategy identifies issues that each business division should prioritize, provides solutions, and leads to growth (see below for examples of major green business and green initiatives). The analysis and assessment of the relationship between business and nature by sector, identification of priority issues and details of the strategy, which were conducted when the strategy was formulated, have been organized and integrated into the Green Portal, described below.

State of major green business initiatives: For details, please refer to ➤ Integrated Report 2024 (P106-107)  [35.5MB].

Major progress in greening all business domains: For details, please refer to ➤ Integrated Report 2024 (P108)  [35.5MB].

Through the formulation and implementation of the GC2024 Green Strategy and Division-Specific Green Strategies for each business division, awareness of connecting “green” to “growth” has permeated throughout the entire Group. In the Mid-Term Management Strategy GC2027, under the basic policy of “shifting into high gear towards the next growth stage, accelerating profit growth and corporate value enhancement,” we aim to “promote green initiatives to enhance corporate value.” In other words, “green” is also advancing toward the next stage.

GC2027 Green Initiatives: For details, please refer to ➤ GC2027 (P13)  [2.0MB].

Identification and Evaluation of Nature-Related Issues (LEAP Approach)

To identify and evaluate nature-related issues, we applied the “LEAP Approach” of the TNFD. The LEAP Approach is a voluntary framework proposed by the TNFD for understanding nature-related issues, with “LEAP” standing for the initials of its four steps: Locate, Evaluate, Assess, and Prepare.

The Marubeni Group aims to contribute to the transition to nature-positive outcomes by comprehensively organizing the diverse range of products, value chains, and regions it handles, understanding and evaluating the relationship between business and nature, extracting priority issues, and considering solutions both within and outside the group.

Marubeni Group developed “> Green Portal” to illustrate how the marubeni Group understands “nature” and how it has connected or is trying to connect that to its own business “Growth”, and to show the initiatives aimed at building “positive” relationships between business and nature.

1. Organizing the Definition of Business

We defined the businesses of the Marubeni Group and the upstream and downstream of its value chain using four coordinate axes: “product,” “value chain (VC),” “handling organization (within/outside the Group*),” and “location (activity region).”

- ① Product × VC: Identifying the products handled by the Marubeni Group and their VC
- ② Identification of Handling Organizations: Linking the handling organizations to the product × VC combinations organized in ①
- ③ Identification of Locations: Specifying the locations of the information organized up to ②

As a result of steps ① to ③ above, we identified over 100 types of products and more than 500 product × VC combinations, demonstrating that the Marubeni Group, as a general trading company, operates a diverse range of businesses globally.

* Marubeni Corporation, consolidated subsidiaries, and equity-method affiliates are classified as “Within the Group,” while other companies and organizations in the upstream and downstream of the VC are classified as “Outside the Group.”

2. Evaluation of Sensitive Locations and Biome Identification for Products × VC [Locate]

We conducted an evaluation of sensitive locations concerning the “main countries of origin for raw materials” and “regions of our direct operations.” Here, based on the TNFD criteria, we assessed whether the locations where our business operates are situated in or near regions that are considered sensitive from a nature perspective. For products × VC with activities in or near sensitive locations, further evaluation was conducted in subsequent steps (see 4 below). Additionally, we identified the biomes of the locations where our business operates. For details on the evaluation of sensitive locations, please refer to “Connections Between the Marubeni Group and Upstream/Downstream Value Chain Businesses and Sensitive Locations.”

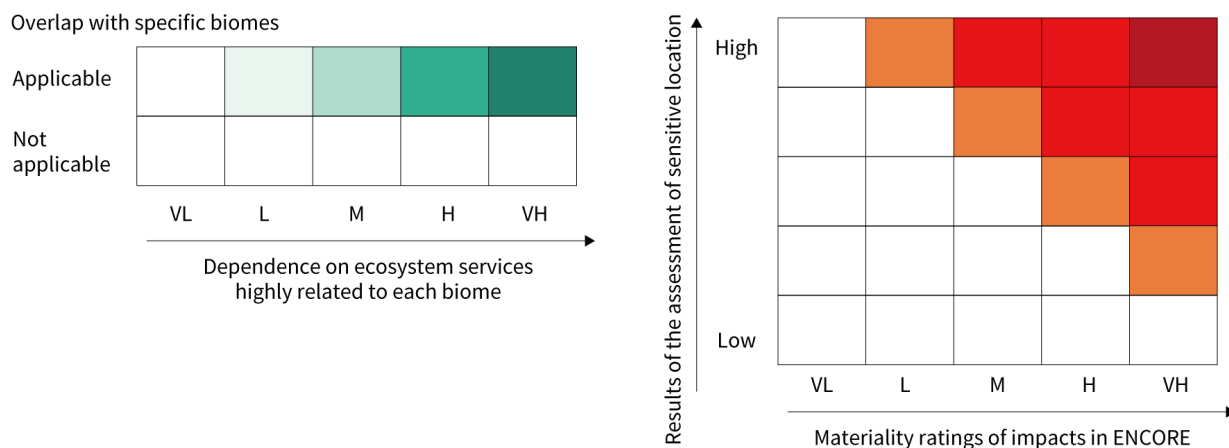
3. Evaluation of Dependencies and Impacts of Products × VC [Evaluate]

We evaluated the dependencies and impacts on nature of each product × VC across the Marubeni Group and its upstream and downstream VC, as defined in 1 above, using a five-level scale (Very Low, Low, Medium, High, Very High). For the evaluation of dependencies and impacts, we utilized the “ENCORE” tool, operated by UNEP-FI (United Nations Environment Programme Finance Initiative), UNEP-WCMC (United Nations Environment Programme World Conservation Monitoring Centre), and Global Canopy (a UK think tank). We referred to ENCORE as of December 2024. Additionally, ENCORE was also applied to the industry classification of each product × VC.

4. Assessment of Risk Regions for Products × VC [Assess]

We combined the evaluation results of sensitive locations for each product × VC (see 2 above) with the evaluation results of dependencies and impacts (see 3 above) to identify regions (risk regions) where business activities may potentially face nature-related issues. In this step, we narrowed down risk regions using a matrix, with the evaluation results of biomes and sensitive locations on the vertical axis and the evaluation results of dependencies and impacts on the horizontal axis.

The Marubeni Group not only identifies dependencies and impacts for products × VC but also organizes its relationship with nature by incorporating location information into these dependencies and impacts. This is the most distinctive feature of the LEAP Approach implemented by the Marubeni Group. This approach can be applied horizontally across a wide range of products × VC, providing the core information for the Green Portal.



5. Integration with Green Strategies [Prepare]

Since avoiding or reducing dependencies and impacts on nature contributes to mitigating nature-related risks, we linked the Division-Specific Green Strategies of the business divisions to the information for each product × VC × location. This integration connects “Green Strategies that contribute to reducing dependencies and impacts” with “the characteristics of the locations where business is operated,” enabling the Marubeni Group to systematically organize its approach to addressing nature-related issues.

Below, we provide an overview of the relationships between the Marubeni Group, its upstream and downstream VC, and nature, as identified through the five steps outlined above.

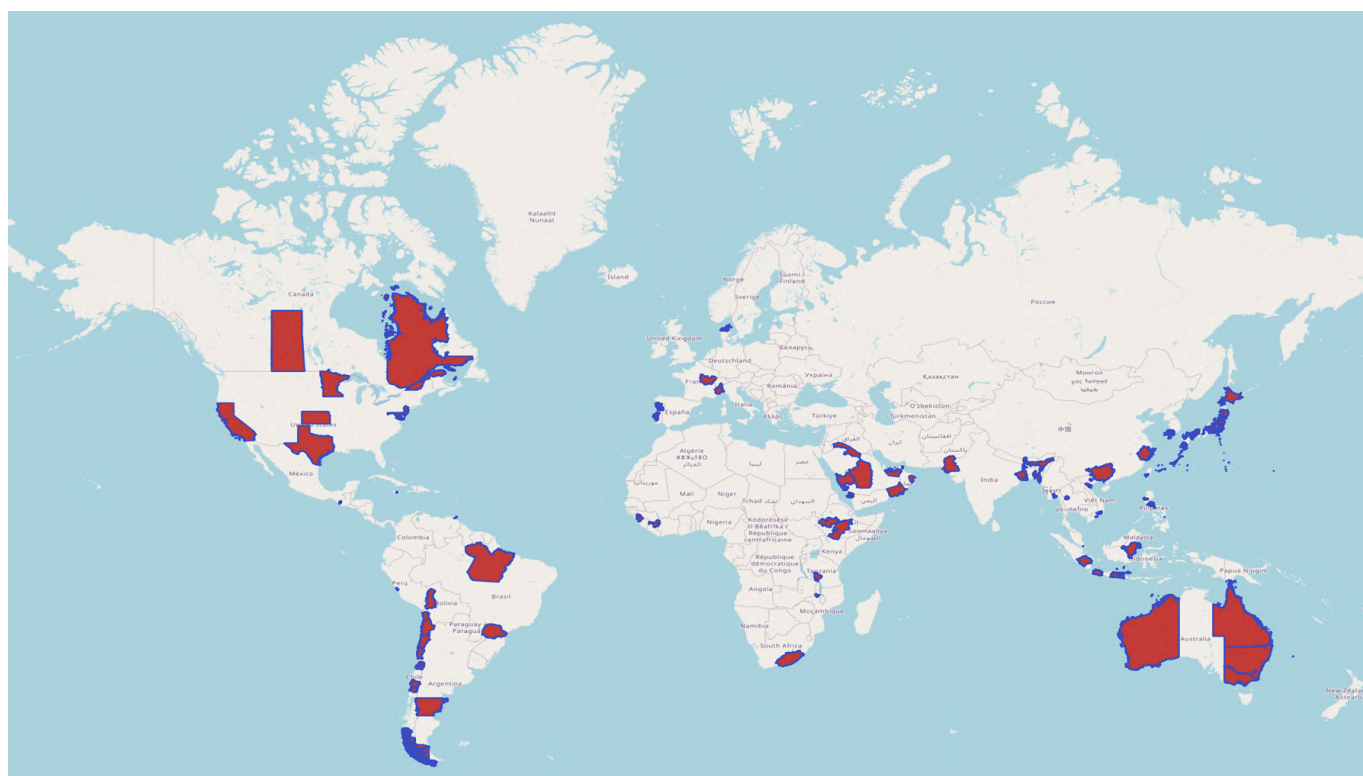
Connections Between the Marubeni Group and Upstream/Downstream Value Chain Businesses and Sensitive Locations

Since nature-related issues vary by region, it is critical to understand how our business activities interact with specific natural environments and ecosystems and what kinds of activities are being operated in those areas. The TNFD requires organizations to identify and disclose regions considered ecologically high-risk (sensitive locations) within their direct operations or value chains (VC), as well as regions where the organization has identified significant nature-related issues (material locations). This document focuses on disclosing information regarding sensitive locations.

The identification of sensitive locations was carried out through the following steps.

1. Organization of Location Information

The location information for the Marubeni Group and its upstream and downstream VC was organized by referring to the “Definition of Business” established in the Green Portal. Note that the traceability of some products and VC includes data at the country or state level.



Examples of locations where the Marubeni Group and its value chain operate business (The background map refers to OpenStreetMap)

2. Selection of Indicators

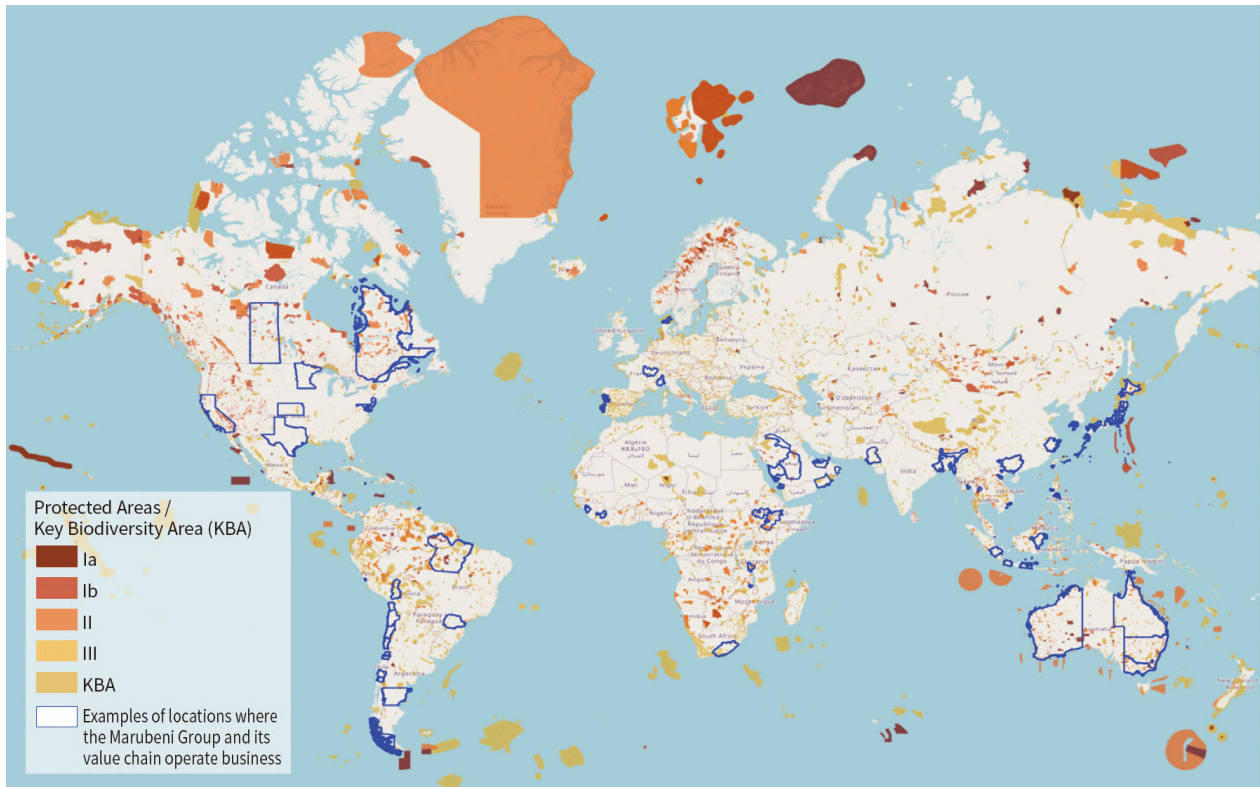
In the TNFD, sensitive locations are indicated by four areas: “Areas important for biodiversity,” “Areas of high ecosystem integrity,” “Areas of importance for ecosystem service provision,” and “Areas of high physical water risks.” The TNFD requires organizations to select tools or indicators based on these criteria and explain how they have defined sensitive locations.

Given that the Marubeni Group deals with a wide range of products, we selected indicators as outlined to enable cross-sectoral evaluation across diverse sectors as follows. Locations that intersect with these regions are defined as sensitive locations for the Marubeni Group and its upstream and downstream value chains. For businesses operating in these sensitive locations, we conduct a more detailed assessment of their dependencies and impacts on nature.

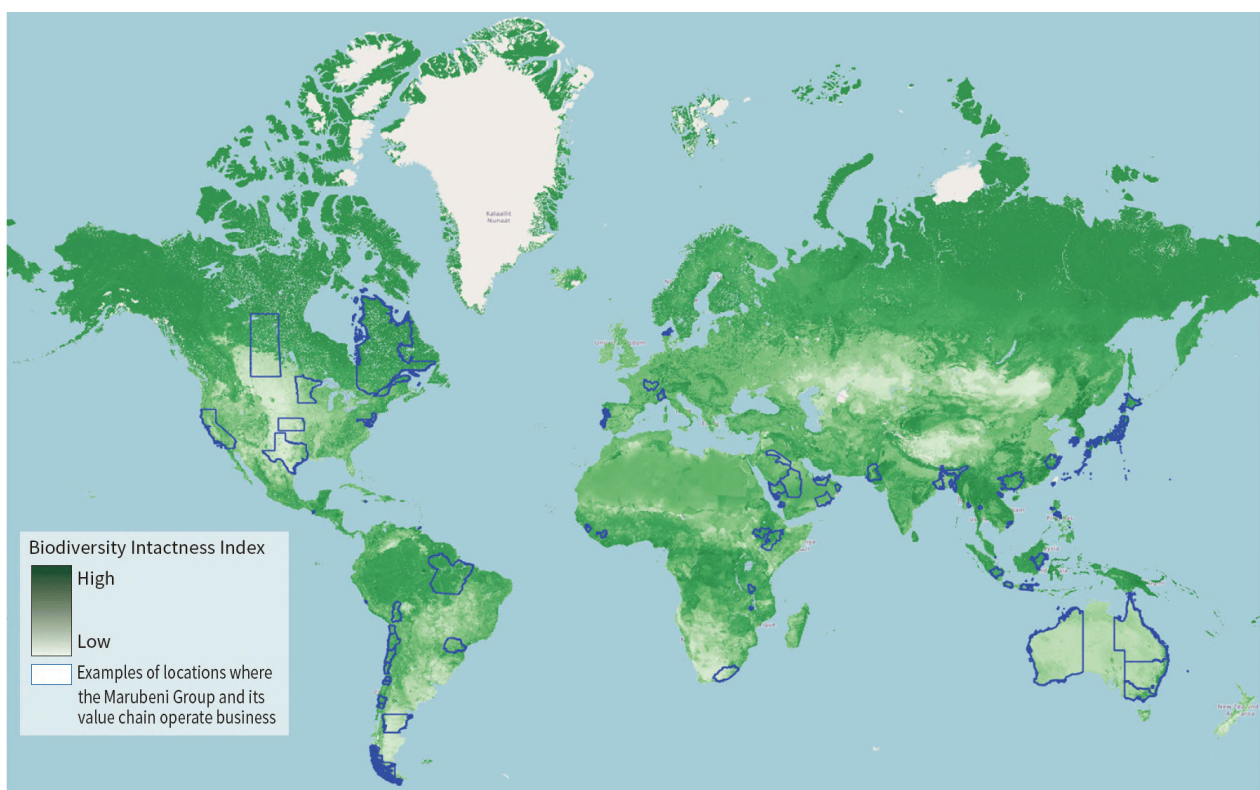
Area	Criteria	Indicators	Overview of Indicators
Biodiversity Importance	Areas protected for natural or ecological reasons	World Database on Protected Areas (WDPA)	The data refers to areas designated as protected regions under international conventions and other frameworks, referencing the World Database on Protected Areas (WDPA). Developed by the International Union for Conservation of Nature and Natural Resources (IUCN), management categories I to VI are established to classify protected areas. (Data source: IBAT (Integrated Biodiversity Assessment Tool))
		Key Biodiversity Area (KBA)	Data on key regions critical for biodiversity conservation, selected based on international standards. This extends the concept of important areas for birds, as designated by the international environmental NGO “BirdLife International,” to other biological taxonomic groups. (Data source: IBAT)
	Areas important for endangered species	Species Threat Abatement and Restoration (STAR) metric (terrestrial environments)	A metric quantifying the potential contribution of threat mitigation activities for terrestrial species to reducing global extinction risk. (Data source: IBAT)
		Species Threat Abatement and Restoration (STAR) metric (marine environments)	An indicator quantifying the potential contribution of threat mitigation activities for marine species to reducing global extinction risk. (Data source: Turner et al. (2024). Targeting ocean conservation outcomes through threat reduction)
Ecosystem Integrity	High integrity locations	Biodiversity Intactness Index (BII)	A metric showing the extent to which populations remain compared to the pristine natural state, unaffected by human pressures such as land modification. (Data source: Newbold et al. (2016). Has land use pushed terrestrial biodiversity beyond the planetary boundary? A global assessment)
	Areas of rapid decline in integrity	Tree cover loss	A metric showing the reduction in tree cover from 2001 to 2023. (Data source: Global Forest Watch)
Ecosystem Service Delivery Importance	Areas important for delivery of ecosystem service benefits, including to Indigenous Peoples and local communities	Indigenous Peoples and local communities	A data platform that publishes maps and other information regarding lands collectively owned and used by Indigenous Peoples and local communities. (Data source: LandMark)
Water Physical Risk	Areas of low water availability	Baseline water stress	A score based on the ratio of water withdrawal to the water supply in a watershed, indicating the level of water supply-demand stress. (Data source: Aqeduct)
	Areas of high flood risks	Flood depth	Flood inundation depth (m) for a 100-year return period. (Data source: MS&AD Flood Risk Finder)
	Areas concerned about declining water quality	Biochemical Oxygen Demand (BOD)	Water Pollution Indicator by BOD from the World Bank (Data source: World Bank)
Others	Biome of the business operating areas	Global Ecosystem Typology 2.0	Twenty-four groups (Functional Biomes) subdivided by ecosystem functions, derived from the five major classifications (Realms) of the biosphere—terrestrial, freshwater, marine, subterranean, and atmospheric. (Data source: IUCN)

3. Analysis

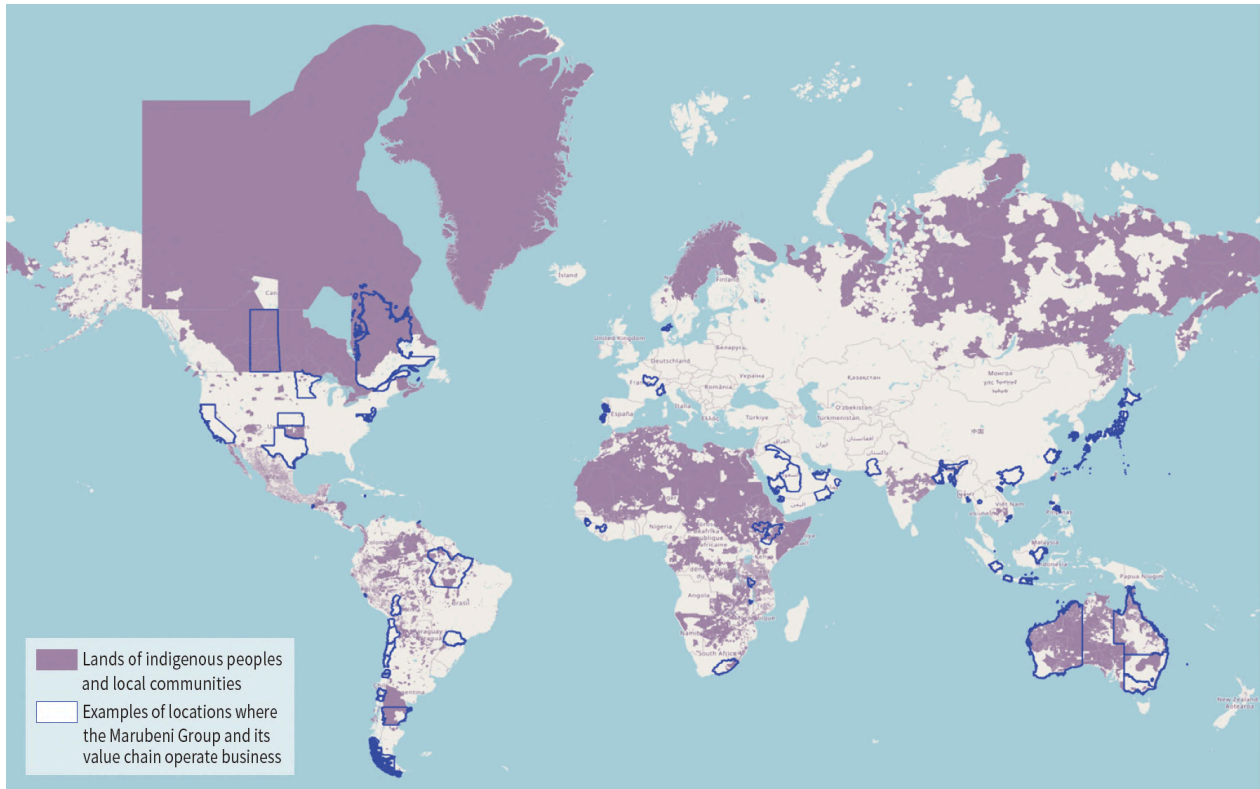
We overlaid the location information organized in step 1 and the indicators selected in step 2 on GIS (Geographic Information System) software to examine the ecological characteristics of the areas surrounding the locations of where the Marubeni Group and companies with upstream and downstream value chains operate business. The analysis was conducted for all the indicators selected in the Step2.



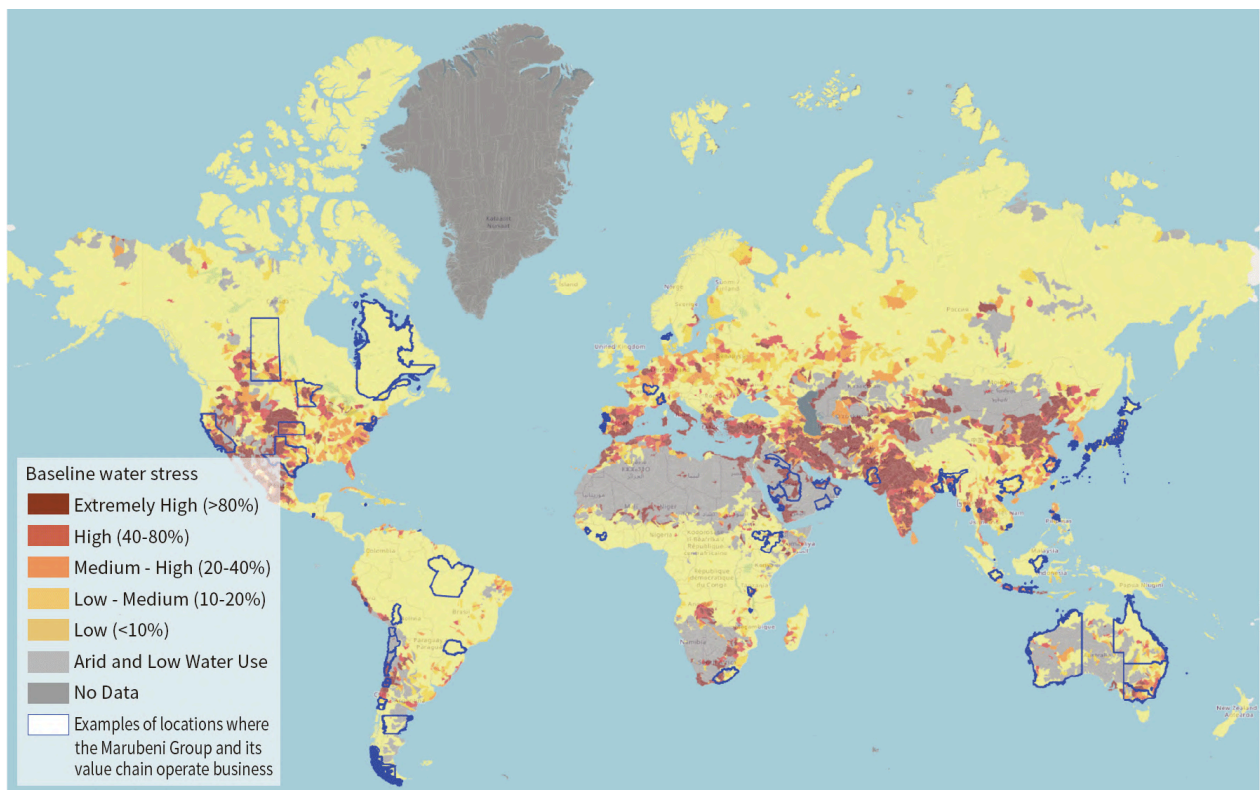
Proximity to the location where the Marubeni Group and its value chain operate business and Protected areas / KBA
(The background map refers to OpenStreetMap)



Proximity to the location where the Marubeni Group and its value chain operate business and areas of high ecosystem integrity
(The background map refers to OpenStreetMap)



Proximity to the location where the Marubeni Group and its value chain operate business and the areas where indigenous peoples and local communities are claiming their rights (The background map refers to OpenStreetMap)



Proximity to the location where the Marubeni Group and its value chain operate business and the water-stressed areas (The background map refers to OpenStreetMap)

4. Selection and Organization of Sensitive Locations

Based on the analysis results of step 3, we selected locations where require the ecological attention (sensitive locations). These sensitive locations were identified based on the four areas: "Areas important for biodiversity," "Areas of high ecosystem integrity," "Areas of importance for ecosystem service provision," and "Areas of high physical water risks." The selected sensitive locations were organized as within or outside of the Group according to the handling organizations involved in the Green Portal.

The analysis and evaluation conducted at the country or state level for Product × VC may have been overestimated. Therefore, we organized the evaluation results targeting products × VC for which traceability is secured at a level more detailed than the city level. Based on the results from steps 1 to 4 above, an example of countries containing regions considered ecologically sensitive is presented below. For products × VC corresponding to sensitive locations, the next step involves verifying the actual ecological impacts at the locations where the Marubeni Group operates the business, based on each of the four relevant criteria; necessary measures will then be considered as needed. For the status of responses to "Water physical risks," please refer to the [▶ CDP](#) [Water Security](#) responses.

Furthermore, for infrastructure facilities operated using public funds or project financing, we conduct environmental assessments in accordance with the standards of the funding entities and relevant government agencies before carrying out business activities.

Area	Criteria	Countries with Sensitive Locations
Biodiversity Importance	Areas protected for natural or ecological reasons	[Within the Group] Vietnam, Brazil, Myanmar, U.S.A., Taiwan, Portugal, Japan [Outside the Group] Ethiopia, Guatemala, Indonesia, Mexico, Japan, etc.
	Areas important for endangered species	[Within the Group] Vietnam, Brazil, Myanmar, U.S.A., Philippines, Bangladesh, Japan, etc. [Outside the Group] Indonesia, Mexico, Chile, Australia, Saudi Arabia, Japan, etc.
Ecosystem Integrity	High integrity locations	[Within the Group] Vietnam, Brazil, Thailand, U.S.A., Tunisia, Taiwan, Japan, etc. [Outside the Group] Ethiopia, Guatemala, Chile, Saudi Arabia, Indonesia, Mexico, Japan, etc.
	Areas of rapid decline in integrity	[Within the Group] Indonesia, Philippines, Japan, etc. [Outside the Group] Australia, Malaysia, Indonesia, etc.
Ecosystem Service Delivery Importance	Areas important for delivery of ecosystem service benefits, including to indigenous peoples and local communities	[Within the Group] Taiwan, U.S.A., Indonesia, Australia, Saudi Arabia, Japan, etc. [Outside the Group] Ethiopia, Guatemala, Indonesia, Australia, etc.
Water Physical Risk	Areas with low water availability	[Within the Group] Taiwan, Indonesia, Saudi Arabia, Chile, Australia, etc. [Outside the Group] Thailand, Saudi Arabia, Indonesia, Australia, etc.
	Areas of high flood risks	[Within the Group] Chile, Japan, etc. [Outside the Group] Myanmar, Papua New Guinea, Chile, etc.
	Areas concerned about declining water quality	[Within the Group] Chile, Japan, etc. [Outside the Group] China, Japan, etc.

Dependencies and Impacts on Nature for the Marubeni Group and Its Upstream and Downstream Value Chain

As a result of the dependencies and impacts assessment using ENCORE, we have excerpted and listed those with particularly high significance within and outside the Group. The evaluation results of dependencies and impacts for all products × value chain (VC) are published on the [▶ Green Portal](#). (Note that Division and Industry group in the following tables adopt ENCORE's industry classifications, which include products and businesses not handled by the Marubeni Group.)

As a characteristic of the relationship between the business and nature for the Marubeni Group, its upstream and downstream VC, the degree of dependency and impact tends to be higher outside the Group than within it. Businesses outside the Group span a wide variety of sectors. Providing solutions to these business entities to reduce their nature-related dependencies and impacts not only contributes significantly to nature positive but also represents an opportunity for our Group to transition toward nature positive practices, thereby supporting growth. For efforts to reduce climate change-related impacts, please also refer to the [▶ TCFD](#) disclosures.

Based on the findings so far, regarding direct operations, we have determined that the dependencies and impacts of the industrial afforestation business (Forest Products Division, Lifestyle Division from April 2025), which deals with paper and pulp as its products, are material. In particular, Indonesia have been identified as a sensitive location and, this year, we conducted an in-depth LEAP analysis targeting the industrial afforestation in Indonesia. For the industrial afforestation, we have also assessed nature-related risks and opportunities, and the results will be explained in the subsequent section, "Industrial Afforestation Business."

[Dependencies / Within the Group]

	Division	Industry group	Water supply	Other provisioning services		Remediation			Water flow regulation	Climate regulation		Flood and storm mitigation			Soil and sediment retention	Soil quality regulation	Nursery population and habitat maintenance	Biological control	Cultural service
				Biomass provision-ing	Genetic material	Solid waste remediation	Air filtration	Water purification		Global	Local (micro and meso)	Flood mitigation service	Storm mitigation	Rainfall pattern regulation					
Within the Group	Agriculture, forestry and fishing	Logging	M	VH	ND	M	H	-	M	ND	-	M	L	-	VH	H	-	H	-
	Agriculture, forestry and fishing	Silviculture and other forestry activities	H	VH	VH	M	M	VH	H	VH	VH	H	M	VH	VH	VH	H	H	ND
	Water supply; sewerage, waste management and remediation activities	Water collection, treatment and supply	M	VL	-	VH	M	VH	M	VL	L	M	L	VH	M	-	-	VL	-
	Electricity, gas, steam and air conditioning supply	Fossil fuels energy production	H	-	-	M	VL	M	H	M	L	M	L	-	M	-	-	-	-
	Mining and quarrying	Mining of hard coal	H	L	-	L	M	VH	H	H	L	H	M	VH	M	-	-	-	-
	Mining and quarrying	Mining of other non-ferrous metal ores	H	VL	-	L	M	VH	H	H	L	H	M	VH	M	-	-	-	-
	Agriculture, forestry and fishing	Aquaculture	H	VH	M	VH	M	VH	H	M	H	H	H	VH	VH	M	VL	H	ND
	Mining and quarrying	Mining of iron ores	H	VL	-	L	M	VH	H	H	L	H	M	VH	M	-	-	-	-
	Electricity, gas, steam and air conditioning supply	Hydropower energy production	VH	-	-	L	-	L	VH	M	L	VH	M	-	VH	-	-	-	-
	Mining and quarrying	Extraction of natural gas	L	-	-	L	M	VL	M	H	L	H	L	ND	L	-	-	-	-
	Manufacturing	Manufacture of fertilizers and nitrogen compounds	H	-	-	M	L	M	H	VL	L	M	M	M	M	-	-	-	-
	Manufacturing	Processing and preserving of meat	H	-	-	M	L	VH	H	VL	ND	M	M	-	L	-	-	VL	-
	Manufacturing	Processing and preserving of fish, crustaceans and molluscs	H	-	-	M	L	VH	H	VL	ND	M	M	-	L	-	-	VL	-
	Water supply; sewerage, waste management and remediation activities	Sewerage	L	-	-	VH	M	M	H	VL	ND	H	H	M	VL	-	-	VL	-
	Mining and quarrying	Extraction of crude petroleum	M	-	-	L	M	VL	M	H	L	H	L	ND	L	-	-	-	-
	Construction	Construction of utility projects	M	-	-	ND	L	M	M	M	L	M	M	VH	H	-	-	ND	-
	Transportation and storage	Sea and coastal freight water transport	L	-	-	ND	VL	M	M	M	L	H	H	M	L	-	-	VL	VH

* Please note that this heat map is based on a general ENCORE assessment of dependence on and impact on nature, and does not include elements beyond general information regarding our company's specific circumstances.

High	VH	Very High
	H	High
	M	Medium
	L	Low
Low	VL	Very Low
	-	the combination of the economic activity and exosystem service was not found
	ND	in cases of insufficient data as ND (No Data).

[Dependencies / Outside the Group]

	Division	Industry group	Water supply	Other provisioning services		Remediation			Water flow regulation	Climate regulation		Flood and storm mitigation			Soil and sediment retention	Soil quality regulation	Nursery population and habitat maintenance	Biological control	Cultural service
				Biomass provision-ing	Genetic material	Solid waste remediation	Air filtration	Water purification		Global	Local (micro and meso)	Flood mitigation service	Storm mitigation	Rainfall pattern regulation					
Outside the Group	Agriculture, forestry and fishing	Logging	M	VH	ND	M	H	-	M	ND	-	M	L	-	VH	H	-	H	-
	Agriculture, forestry and fishing	Silviculture and other forestry activities	H	VH	VH	M	M	VH	H	VH	VH	H	M	VH	VH	VH	H	H	ND
	Agriculture, forestry and fishing	Raising of cattle	H	VH	M	M	M	H	H	M	M	M	H	VH	VH	H	VL	M	VH
	Agriculture, forestry and fishing	Growing of cereals (except rice), leguminous crops and oil seeds	H	VH	VH	M	M	VH	H	VH	VH	H	H	VH	VH	VH	VL	H	-
	Agriculture, forestry and fishing	Raising of poultry	M	H	M	M	M	H	H	M	M	M	H	VH	M	L	VL	M	VH
	Water supply; sewerage, waste management and remediation activities	Water collection, treatment and supply	M	VL	-	VH	M	VH	M	VL	L	M	L	VH	M	-	-	VL	-
	Electricity, gas, steam and air conditioning supply	Fossil fuels energy production	H	-	-	M	VL	M	H	M	L	M	L	-	M	-	-	-	-
	Mining and quarrying	Mining of hard coal	H	L	-	L	M	VH	H	H	L	H	M	VH	M	-	-	-	-
	Transportation and storage	Freight air transport	VL	-	-	ND	VL	ND	VL	M	L	VL	L	VH	L	-	-	VL	-
	Mining and quarrying	Mining of other non-ferrous metal ores	H	VL	-	L	M	VH	H	H	L	H	M	VH	M	-	-	-	-
	Mining and quarrying	Mining of iron ores	H	VL	-	L	M	VH	H	H	L	H	M	VH	M	-	-	-	-
	Electricity, gas, steam and air conditioning supply	Hydropower energy production	VH	-	-	L	-	L	VH	M	L	VH	M	-	VH	-	-	-	-
	Manufacturing	Manufacture of plastics and synthetic rubber in primary forms	M	-	-	L	L	M	M	VL	L	M	M	M	M	-	-	-	-
	Mining and quarrying	Extraction of natural gas	L	-	-	L	M	VL	M	H	L	H	L	ND	L	-	-	-	-
	Manufacturing	Manufacture of fertilizers and nitrogen compounds	H	-	-	M	L	M	H	VL	L	M	M	M	M	-	-	-	-
	Manufacturing	Manufacture of basic chemicals	M	-	-	L	L	M	M	VL	L	M	M	VL	M	-	-	-	-
	Manufacturing	Processing and preserving of meat	H	-	-	M	L	VH	H	VL	ND	M	M	-	L	-	-	VL	-
	Manufacturing	Processing and preserving of fish, crustaceans and molluscs	H	-	-	M	L	VH	H	VL	ND	M	M	-	L	-	-	VL	-
	Water supply; sewerage, waste management and remediation activities	Sewerage	L	-	-	VH	M	M	H	VL	ND	H	H	M	VL	-	-	VL	-
	Mining and quarrying	Extraction of crude petroleum	M	-	-	L	M	VL	M	H	L	H	L	ND	L	-	-	-	-
	Construction	Construction of buildings	M	-	-	VL	L	M	M	M	L	M	M	VH	H	-	-	ND	-
	Construction	Construction of utility projects	M	-	-	ND	L	M	M	M	L	M	M	VH	H	-	-	ND	-
	Manufacturing	Manufacture of motor vehicles	L	-	-	L	L	M	M	VL	L	M	M	VL	M	-	-	-	-
	Transportation and storage	Sea and coastal freight water transport	L	-	-	ND	VL	M	M	M	L	H	H	M	L	-	-	VL	VH

* Please note that this heat map is based on a general ENCORE assessment of dependence on and impact on nature, and does not include elements beyond general information regarding our company's specific circumstances.

High	VH	Very High
	H	High
	M	Medium
	L	Low
Low	VL	Very Low
	-	the combination of the economic activity and exosystem service was not found
	ND	in cases of insufficient data as ND (No Data).

[Impacts / Within the Group]

Division	Industry group	Area of land use	Area of freshwater use	Ocean and seabed use	Volume of water use	Other biotic/abiotic resource extraction	Emissions of GHG	Emissions of non-GHG air pollutants	Emissions of water pollutants	Emissions of soil pollutants	Generation and release of solid waste	Disturbances (e.g. noise, light)	Introduction of invasive species
Agriculture, forestry and fishing	Logging	VH	M	ND	M	VH	M	VH	M	M	L	H	M
Agriculture, forestry and fishing	Silviculture and other forestry activities	VH	-	-	M	ND	ND	VH	H	H	L	H	H
Water supply; sewerage, waste management and remediation activities	Water collection, treatment and supply	H	H	ND	L	-	M	M	M	M	L	M	-
Electricity, gas, steam and air conditioning supply	Fossil fuels energy production	M	M	ND	M	-	VH	VH	VH	VH	H	VH	-
Mining and quarrying	Mining of hard coal	M	H	ND	M	-	VH	H	H	H	M	H	VL
Mining and quarrying	Mining of other non-ferrous metal ores	M	VH	VH	M	H	M	H	VH	VH	H	VH	L
Agriculture, forestry and fishing	Aquaculture	M	H	H	M	VH	M	-	H	H	H	M	H
Mining and quarrying	Mining of iron ores	M	H	H	L	H	M	M	H	H	VH	H	VL
Electricity, gas, steam and air conditioning supply	Hydropower energy production	M	H	-	L	-	L	-	ND	ND	L	H	-
Mining and quarrying	Extraction of natural gas	L	H	H	M	-	H	H	H	H	M	H	VL
Manufacturing	Manufacture of fertilizers and nitrogen compounds	L	-	-	M	-	M	M	VH	VH	M	VH	-
Manufacturing	Processing and preserving of meat	L	-	-	M	-	M	M	VH	VH	M	M	ND
Manufacturing	Processing and preserving of fish, crustaceans and molluscs	L	-	-	M	-	L	L	VH	VH	M	M	ND
Water supply; sewerage, waste management and remediation activities	Sewerage	L	M	M	L	-	H	L	VH	VH	M	VH	VH
Mining and quarrying	Extraction of crude petroleum	L	VH	VH	L	-	H	M	VH	VH	L	VH	L
Construction	Construction of utility projects	L	VH	M	L	-	M	L	H	H	M	VH	L
Transportation and storage	Sea and coastal freight water transport	-	ND	M	L	-	H	H	L	L	M	VH	VH

* Please note that this heat map is based on a general ENCORE assessment of dependence on and impact on nature, and does not include elements beyond general information regarding our company's specific circumstances.

High	VH	Very High
	H	High
	M	Medium
	L	Low
Low	VL	Very Low
	-	the combination of the economic activity and ecosystem service was not found in cases of insufficient data as ND (No Data).
	ND	

[Impacts / Outside the Group]

Division	Industry group	Area of land use	Area of freshwater use	Ocean and seabed use	Volume of water use	Other biotic/abiotic resource extraction	Emissions of GHG	Emissions of non-GHG air pollutants	Emissions of water pollutants	Emissions of soil pollutants	Generation and release of solid waste	Disturbances (e.g. noise, light)	Introduction of invasive species
Agriculture, forestry and fishing	Logging	VH	M	ND	M	VH	M	VH	M	M	L	H	M
Agriculture, forestry and fishing	Silviculture and other forestry activities	VH	-	-	M	ND	ND	VH	H	H	L	H	H
Agriculture, forestry and fishing	Raising of cattle	VH	H	-	H	ND	H	H	H	H	VH	M	H
Agriculture, forestry and fishing	Growing of cereals (except rice), leguminous crops and oil seeds	H	M	-	VH	ND	M	H	VH	VH	H	M	VH
Agriculture, forestry and fishing	Raising of poultry	H	-	-	H	ND	M	H	H	H	H	M	M
Water supply; sewerage, waste management and remediation activities	Water collection, treatment and supply	H	H	ND	L	-	M	M	M	M	L	M	-
Electricity, gas, steam and air conditioning supply	Fossil fuels energy production	M	M	ND	M	-	VH	VH	VH	VH	H	VH	-
Mining and quarrying	Mining of hard coal	M	H	ND	M	-	VH	H	H	H	M	H	VL
Transportation and storage	Freight air transport	M	L	L	M	-	H	M	L	L	VL	VH	VH
Mining and quarrying	Mining of other non-ferrous metal ores	M	VH	VH	M	H	M	H	VH	VH	H	VH	L
Mining and quarrying	Mining of iron ores	M	H	H	L	H	M	M	H	H	VH	H	VL
Electricity, gas, steam and air conditioning supply	Hydropower energy production	M	H	-	L	-	L	-	ND	ND	L	H	-
Manufacturing	Manufacture of plastics and synthetic rubber in primary forms	L	-	-	H	-	M	M	VH	VH	M	VH	-
Mining and quarrying	Extraction of natural gas	L	H	H	M	-	H	H	H	H	M	H	VL
Manufacturing	Manufacture of fertilizers and nitrogen compounds	L	-	-	M	-	M	M	VH	VH	M	VH	-
Manufacturing	Manufacture of basic chemicals	L	-	-	M	-	M	M	VH	VH	M	VH	-
Manufacturing	Processing and preserving of meat	L	-	-	M	-	M	M	VH	VH	M	M	ND
Manufacturing	Processing and preserving of fish, crustaceans and molluscs	L	-	-	M	-	L	L	VH	VH	M	M	ND
Water supply; sewerage, waste management and remediation activities	Sewerage	L	M	M	L	-	H	L	VH	VH	M	VH	VH
Mining and quarrying	Extraction of crude petroleum	L	VH	VH	L	-	H	M	VH	VH	L	VH	L
Construction	Construction of buildings	L	M	M	L	-	H	L	H	H	M	VH	L
Construction	Construction of utility projects	L	VH	M	L	-	M	L	H	H	M	VH	L
Manufacturing	Manufacture of motor vehicles	L	-	-	L	-	VL	L	M	M	L	VH	-
Transportation and storage	Sea and coastal freight water transport	-	ND	M	L	-	H	H	L	L	M	VH	VH

* Please note that this heat map is based on a general ENCORE assessment of dependence on and impact on nature, and does not include elements beyond general information regarding our company's specific circumstances.

High	VH	Very High
	H	High
	M	Medium
	L	Low
Low	VL	Very Low
	-	the combination of the economic activity and ecosystem service was not found in cases of insufficient data as ND (No Data).
	ND	

Industrial Afforestation Business

Interactions Between Industrial Afforestation and Nature

The Marubeni Group identifies Environmental and Social Materialities—namely, “Contributing Toward Measures in Response to Climate Change,” “Contributing Toward the Realization of a Society That Is in Harmony with Nature,” “Contributing Toward the Building of the Circular Economy,” and “Human Rights & Co-development with Communities”—to anticipate customer and societal challenges, provide solutions, and drive its own growth. In the context of the relationship between business and nature, forest-related businesses hold significant importance. The Marubeni Group owns afforestation business in two countries of Indonesia and Australia with a total of approximately 120,000 hectares of tree plantable land. In particular, the industrial afforestation business in Indonesia is a critical element not only as an opportunity for transitioning to nature positive practices but also as a contributor to the growth of our Group (for details, please refer to “> TCFD Disclosures: Long-Term Strategy on Climate Change – Marubeni Group’s Initiatives Leading the Transition to a Low-Carbon and Decarbonized Society, Section 3) Initiatives in the Forestry and Afforestation Sector”). Furthermore, as mentioned earlier, an analysis of nature-related dependencies and impacts across the Marubeni Group’s value chain revealed that, in direct operations, the industrial afforestation business is particularly material from the perspective of dependency. Accordingly, this year, we conducted a detailed analysis of the industrial afforestation business following the LEAP approach.

First, we evaluated sensitive locations among the business sites. The analysis identified the ecosystem services depended upon and the impact factors affecting nature in the industrial afforestation business in Indonesia, which was assessed as a sensitive location. Subsequently, we identified risks and opportunities arising from these dependencies and impacts and conducted a qualitative evaluation of their significance. Furthermore, risk items evaluated as highly significant and requiring priority action were linked to Green Strategy and existing initiatives. The details of each evaluation are presented below.

Evaluation of Sensitive Locations [Locate]

To identify sensitive locations among our business sites, we conducted an analysis using the following indicators. These indicators were selected from the WWF Biodiversity Risk Filter (BRF) data, corresponding to three of the four TNFD areas for sensitive locations: Areas important for biodiversity, Areas of high ecosystem integrity, and Areas of high physical water risks. According to the WWF BRF, a score of 3.4 or higher is considered high risks. Therefore, we designated sites with scores of 3.4 or above for each indicator as “Sensitive Locations.”

The results are as follows: In certain regions of Indonesia, there are numerous protected areas near our business sites, and compared to other regions, the ecosystem integrity is high, confirming that these are locations of significant value to nature. Additionally, PT. Musi Hutan Persada (MHP), located in Indonesia, is not only responsible for producing materials for the Marubeni Group’s key pulp-related products but, as mentioned earlier, is also critical to our growth. Therefore, we have identified nature-related issues in MHP’s industrial afforestation business and formulated strategies targeting it as part of the Division-Specific Green Strategies.

Areas	Indicators	Overview of Indicators
Biodiversity Importance	Protected / Conserved Areas	An indicator that confirms the proximity to or potential overlap with protected areas registered in the UNEP-WCMC World Database on Protected Areas (WDPA).
	Key Biodiversity Areas	An indicator that confirms the proximity to or potential overlap with Key Biodiversity Areas (KBAs), which are critical regions for biodiversity conservation.
	Range Rarity	An indicator that yields a higher score the more rare and endangered species inhabit the surrounding area.
	Sites of International Interest	An indicator that confirms the proximity to or potential overlap with sites registered under the Ramsar Convention or as World Heritage Sites.
Ecosystem Integrity	Ecosystem Condition	An indicator that assesses the extent to which pristine nature remains and the degree to which mammals can move between protected areas.
Water Physical Risks	Water Scarcity	A metrics that comprehensively assesses water scarcity from seven perspectives: aridity, water depletion, baseline water stress ^{*1} , blue water ^{*2} scarcity, available water remaining, probability of drought frequency, and predicted changes in drought occurrence.
	Water Condition	A metrics of water condition calculated by combining multiple water quality metrics, such as biochemical oxygen demand (BOD), for both freshwater and seawater.

*1 The ratio of water demand from human activities to the available water resources.

*2 Water that falls as precipitation and either flows over the surface into rivers or infiltrates the soil to become groundwater.

Country	Region	Biodiversity Importance				Ecosystem Integrity	Water Physical Risks	
		Protected / Conserved Areas	Key Biodiversity Areas	Range Rarity	Sites of International Interest	Ecosystem Condition	Water Scarcity	Water Condition
Australia	Western Australia Point 1.	H	H	H	VL	L	L	H
Indonesia	South Sumatra Point 1.	H	H	H	VL	L	L	H
Indonesia	South Sumatra Point 2.	L	L	L	VL	H	L	H
Indonesia	South Sumatra Point 3.	H	H	H	VL	L	L	H
Indonesia	South Sumatra Point 4.	L	L	L	VL	L	L	H
Indonesia	South Sumatra Point 5.	VH	H	L	H	H	L	H
Indonesia	South Sumatra Point 6.	VH	H	L	H	H	L	H

Identification of Dependencies and Impacts [Evaluate]

Focusing on the industrial afforestation business in Indonesia, we identified the specific dependencies and impacts relevant to the actual operations. To identify these dependencies and impacts, we reviewed business information and management practices owned by MHP, and conducted interviews with on-site personnel, and verified the actual extent of dependencies and impacts. As a result, the material dependencies and impacts on nature specifically related to MHP's industrial afforestation business in Indonesia were identified as follows:

It was found that the company is particularly dependent on provisioning services related to the trees themselves, such as biomass and genetic material, as well as on regulating and maintenance services, including soil quality regulation necessary for growth, suppression of natural disasters such as floods and landslides, and the nursery population and habitat maintenance.

Ecosystem Services		Material Dependencies	Regarding Information of MHP
Provision services	Water supply		The water used for afforestation is sourced from rainwater or rainwater reservoirs, and dependencies on freshwater bodies within the target area are extremely low, thus deemed non-material.
	Biomass provisioning	●	The business is dependent on timber resources.
	Genetic material	●	It is dependent on specific tree species, such as eucalyptus.
Regulating and maintenance services	Solid waste remediation		No hazardous solid waste generated by the business has been identified, thus deemed non-material.
	Soil and sediment retention services	●	The business depends on the natural soil retention function to maintain infrastructure stability and sustain industrial plantations.
	Water purification		Tree growth depends on rainfall and does not rely on water purification function, thus deemed non-material.
	Air filtration		No air pollutant emissions have been identified from the business or external environment, and dependency on air purification function is low, thus deemed non-material.
	Soil quality regulation	●	For healthy tree growth, during afforestation, the business depends on ecosystem services such as soil maintenance and nutrient cycling. However, dependencies on these ecosystem services are reduced by applying chemical fertilizers during seedling production and planting in forest lands.
	Water flow regulation	●	The industrial afforestation sites and surrounding infrastructure depend on ecosystem services that regulate rainwater runoff and mitigate flooding.
	Rainfall pattern regulation	●	To ensure sufficient precipitation for tree growth, the business depends on the regulation of rainfall patterns.
	Global climate regulation	●	The trees targeted for industrial afforestation depend on climate conditions suitable for their growth.
	Local (micro and meso) climate regulation	●	The trees targeted for industrial afforestation depend on natural services that regulate stable humidity levels.
	Flood mitigation	●	The business depends on natural flood mitigation functions to maintain the infrastructure of industrial plantation sites.
	Storm mitigation		While some dependencies are assumed, it is not considered significant enough to impact the continuity of the industrial afforestation business, thus deemed non-material.
	Nursery population and habitat maintenance	●	The growing environment for seedling depends on the maintenance function of habitats to protect against damage from wildlife.
	Pollination		Current seedling production depends on pollination services, but since seedling production through methods like cuttings is also possible, it is deemed non-material.
	Biological control		The trees planted in industrial afforestation sites are eucalyptus species, which have insect-repellent properties due to their volatile compounds. In this business, artificial propagation using cuttings or grafting from pest- and disease-resistant mother trees is employed, so it is deemed not dependent on natural pest control functions.

Impact Driver		Material Impacts	Regarding Information of MHP
Climate change	Emissions of GHG	●	Greenhouse gas (GHG) emissions are generated from forestry machinery and transportation. Additionally, since felled trees are used as pulpwood, GHG emissions also occur in downstream manufacturing processes and export activities.
Land / freshwater / ocean use	Land use change		Since the plantation sites were originally established on bare land, the impact of land-use change is deemed non-material. However, social engagement is conducted in collaboration with various stakeholders, including landowners, NGOs, government sectors or agencies, communities, and interest groups.
Resource use / replenishment	Volume of water use		The water used for afforestation is sourced from rainwater or rainwater reservoirs, and the impact caused by the business is deemed non-material.
Pollution / pollution removal	Emissions of non-GHG air pollutants		The materials used do not contain volatile substances, and no air pollutants are emitted through the business, thus deemed non-material.
	Emissions of soil / water pollutants		Water quality tests conducted to check for pollutants and nutrient runoff meet national standards, thus deemed non-material.
	Disturbances		The use of all heavy machinery in protected areas is prohibited, thus deemed non-material.
Invasive alien species	Introduction of invasive species	●	Since the planted trees are Eucalyptus pellita, there is a risk of invasive species spreading through wind dispersal.

While the plantation site was established on bare land, and thus the ecological impact from land modification is deemed non-material, we recognize the importance of engagement with various stakeholders regarding the land. Social engagement in the region is carried out in collaboration with diverse stakeholders, including landowners, NGOs, government sectors or agencies, communities, and interest groups. Numerous communities with rights exist within the permitted boundaries of the business, and our corporate social responsibility team regularly visits these villages to ensure harmonious relationships are maintained.

Furthermore, as part of efforts to foster greater harmony with local communities, MHP implements a regional collaboration initiative called the Partnership Program. A notable example is a scheme where local communities provide land for growing eucalyptus, and MHP shares the economic benefits generated after harvesting with these communities. To date, approximately 1,000 hectares have already been planted under this program, with plans for further expansion in the future.

Identification of Risks and Opportunities [Assess] / Future Initiatives and Activities [Prepare]

To identify nature-related risks and opportunities, we categorized the activities of the industrial afforestation business into two segments: "Planting" and "Logging (final cutting)." We then assessed the risks and opportunities for each segment arising from the dependencies and impacts on nature identified in the previous section. For the identified risks, we conducted a qualitative evaluation of their significance based on two axes—impact severity if the risk materializes and likelihood of occurrence—while considering the actual operational details of MHP. Based on the evaluation results, for items identified as major risks in Indonesia's industrial afforestation business, we implemented existing risk mitigation measures and integrated additional responses and opportunities into the Division-Specific Green Strategies. A list of major risks, opportunities, and corresponding measures is provided below.

In particular, physical risks were identified as significant, including acute risks such as "damage to trees, infrastructure, and employees due to natural disasters" and chronic risks such as "decreased timber productivity and changes in the environment of planting site due to climate change" and "spread of tree diseases due to monoculture planting." One of the Division-Specific Green Strategies related to MHP's operations, the "biochar business utilizing forest residues and downstream pulp mill residues," contributes to reducing greenhouse gas (GHG) emissions and maintaining soil quality regulation, a key aspect of the planting environment. As an opportunity to address issues through impact reduction and create further value for the Marubeni Group, we have formulated and are actively pursuing Division-Specific Green Strategies to advance this initiative.

Forest Products Division (Lifestyle Division from April 2025) Green Strategy for MHP (Examples)

- Promoting green businesses through forest value creation business (maximizing the economic and environmental value of MHP's operations, generating carbon credits through environmental afforestation, etc.).
- Sustainable forest management/forest conservation and multipurpose utilization of forest-derived products (product-specific procurement policies).

Risk Classification		Major Risk Contents	Related Businesses		Major Measures	Particularly Related Dependencies / Impacts on Nature
			Planting	Logging (Final cutting)		
Physical Risks	Acute Risks	Suspension or stagnation of operations due to sudden natural disasters such as heavy rain, floods, or forest fires.	●	●	• Formulation and adherence to policies for sustainable forestry (Forest Management Policy).	[Dependencies] Soil and sediment retention, water flow regulation, rainfall pattern regulation, global climate regulation, local (micro and meso) climate regulation, flood mitigation, nursery population and habitat maintenance.
		Damage to seedlings, destruction of infrastructure such as seedling facilities or forest roads, and personal injury to employees or local staff caused by natural disasters.	●			
		Destruction of infrastructure such as forest roads and personal injury to employees or local staff caused by natural disasters.		●		
	Chronic Risks	Decreased timber productivity and harvest volume due to rising temperatures, reduced precipitation, and prolonged droughts caused by climate change.	●	●	[Green Strategy] • Promotion of a biochar business utilizing forest residues and downstream pulp mill residues.	[Dependencies] Genetic material, soil quality regulation, rainfall pattern regulation, global climate regulation, local (micro and meso) climate regulation, nursery population and habitat maintenance.
		Change in planted tree species due to changes in the environment at the afforestation site (introduction of species suitable for growth in that environment)	●			
		Reduced labor productivity due to extreme heat.	●	●		
		Spread of tree diseases and wildlife damage due to monoculture planting.	●			
Transition Risks	Market Reputation	Declining customer preference due to the growing negative image of industrial afforestation.	●	●	• Formulation of and compliance with a forest management policy.	[Impacts] GHG emissions, introduction of invasive species
	Reputation and compensation for damages	Fines or compensation for damages to natural capital due to the introduction of invasive species.	●	●	• Acquisition of certification from the Indonesian Forestry Certification Cooperation.	[Impacts] Introduction of invasive species.

Opportunity Classification		Major Opportunity Contents
Business	Product and Service	Short planting-to-logging (final cutting) cycles allow for extended periods of planting trees in their growth phase, which absorb more CO ₂ (generally, trees in their growth phase absorb more carbon than mature trees).
	Market	Increased demand for certified products due to preferences for environmentally friendly products.
	Market / Reputation	Enhanced customer preference, reputation, and brand value through environmentally considerate operations.
	Financial Incentive	Improved investor preference, expanded financing opportunities, and access to nature-related green funds through environmentally considerate operations.
Sustainability	Ecosystem Protection, Restoration, and Regeneration	Suppression of third-party development on land by holding concession areas.

Scenario Analysis

For the forestry business, we conducted a scenario analysis regarding the Mid-Term financial implications caused by climate change, as well as corresponding policies and initiatives. For details, please refer to the [▶ TCFD disclosures \(Results of Scenario Analysis: Forestry Business\)](#).

Financial Implications [Current] [Short Term]

Regarding the current (fiscal year ended March 2025) and short term (up to 3 years) financial implications (impact of financial position, financial performance, and cash flows) of climate-related risks (risks that can reasonably be expected to affect cash flows, access to financing, or cost of capital) on the Marubeni Group, Please refer to the [▶ TCFD disclosures](#). Based on the analysis results of the “LEAP Approach” of the TNFD conducted this time, the financial implications of nature-related risks other than climate-related risks on the Marubeni Group in the current and short-term timeframe are limited.

Risk and Impact Management

The Marubeni Group manages and monitors high-priority risks and opportunities from the perspective of sustainability including climate change, natural capital, and supply chain management—through the Sustainability Management Committee.

The Marubeni Group is assessing potential risks in business from a sustainability perspective. We have developed an assessment framework to support the multifaceted analysis of 27 items across the three risk categories (environmental, health and safety, and social). In addition, we assess the importance and impact of potential risks in each assessment category. We use this risk assessment approach in sustainability survey methods within the Group and our suppliers, and also implement this as a part of the process used to make any investment and financing decisions. Besides monitoring of existing businesses, we use this approach to gauge the value of Group businesses on an ongoing basis from a sustainability perspective.

Risk Assessment Items in Business (27 Items Across 3 Categories)

Environmental	Climate change / Environmental pollution / Biodiversity / Resource management / Mitigation measures and administrative procedures (environmental)
Health & Safety	Machine safety / Fires and explosions / Toxic substance exposure / Infection / Hazardous operations / Mitigation measures and administrative procedures (health & safety)
Social	Forced labor and human trafficking / Child labor / Working hours / Wages and employment contracts / Discrimination / Harassment at work and disciplinary measures / Respect for diversity / Freedom of association and the right to collective bargaining / Land issues / Negative social impact on local communities / Indigenous peoples and cultural heritage / Conflict minerals / Privacy / Animal welfare / Responsible marketing / Mitigation measures and administrative procedures (social)

For impacts on nature, particularly those of high significance such as climate change, the Marubeni Group leverages various scenario analyses, including those by the International Energy Agency (IEA), to identify high-risk situations. In such cases, we consider factors such as projected GHG emission reduction plans, decarbonization strategies in project host countries, and alignment with long-term climate change visions.

These evaluations, alongside climate-related risks, opportunities, and business priorities, inform our investment and financing decisions. Business domains with high risks, including those related to the impacts of climate change, are deliberated by the Investment and Credit Committee, the Corporate Management Committee, and the Board of Directors as needed. The status of these risk management systems is reported to the Board of Directors during the annual review of the basic policy for internal control to evaluate their effectiveness.

To comprehensively assess and manage risks across diverse industries and regions with discipline, in addition to addressing individual risks, we implement “integrated risk management” that oversees the entire Marubeni Group. This framework integrates risks such as “market risk,” “legal and regulatory risk,” “environmental and social risk,” and “natural disaster risks.” In conducting integrated risk management, the Marubeni Group calculates the maximum downside risk (risk assets) by multiplying the consolidated risk exposure by the assumed maximum loss ratio, which is defined according to the risk profile of each asset type. The Group’s basic risk management policy is to keep risk assets within equity, which represents its risk-bearing capacity. As of March 31, 2025, risk assets were within the scope of shareholders’ equity.

The Marubeni Group screens and selects each investment project to maximize returns relative to risk for the entire Group. In addition, by monitoring RORA (return on risk assets), we work to strengthen earnings capacity against potential risks, sustain and improve ROE, and reduce the cost of equity.

Main Risk Factors: For details, please refer to [▶ Integrated Report 2025 \(P53\)](#)  [21.5MB].

Regarding Nature related “physical risks,” the Marubeni Group continuously evaluates the effectiveness of individual measures and works to establish a system that can address all potential crises. In April 2022, the Marubeni Group updated its Business Continuity Plan (BCP) from a scenario-based approach to an All-Hazards BCP, an impact-based approach preparing for natural disasters and other calamities. To ensure the effective functioning of the BCP and to establish and promote the Business Continuity Management (BCM) system, the Marubeni Group has set up a dedicated organization within the General Affairs Department of the Head Office. This system is designed to respond swiftly in the event of a disaster affecting employees, systems, offices (buildings), payment functions, or other critical resources related to the management of Group companies, with the highest priority given to ensuring the safety of human lives.

Metrics and Targets

We have established metrics for dependencies and impacts on nature as outlined as follows.

Core Global Disclosure Metrics and Data for Nature-Related Dependencies and Impacts

Metric No.		
	Driver of Nature Change	Climate Change
	Indicator	GHG Emissions
	Metric	Please refer to ▶ Climate Change (Disclosure in Line with the Recommendations of the TCFD).
	Performance	Please refer to ▶ Climate Related Metrics and Targets .

Metric No.																																			
C1.1	Driver of Nature Change	Land / Freshwater / Ocean-use change																																	
	Indicator	Extent of Land / Freshwater / Ocean-use change																																	
	Metric	• Extent of land use change (km²) –Business operations –Value chain –Analysis level –Biomes of relevant facilities and locations																																	
	Performance	Extent of land use:																																	
		1) Status of land use in the industrial afforestation business analyzed under the LEAP Approach (conversion from bare land to plantation land).																																	
		<table><tr><th>Business Operation</th><th>Value Chain</th><th>Land Use Area (km²)</th><th>Analysis Level</th><th>Biomes of the Relevant Facilities and Locations*</th></tr><tr><td>Industrial Afforestation</td><td>Afforestation, Logging, Silviculture and other forestry activities (Indonesia)</td><td>1,100.00</td><td>Point</td><td>Tropical and sub-tropical forests, intensive land use systems, artificial subterranean freshwaters, artificial wetlands, open ocean waters, artificial marine systems, shoreline systems, artificial shorelines</td></tr></table>		Business Operation	Value Chain	Land Use Area (km ²)	Analysis Level	Biomes of the Relevant Facilities and Locations*	Industrial Afforestation	Afforestation, Logging, Silviculture and other forestry activities (Indonesia)	1,100.00	Point	Tropical and sub-tropical forests, intensive land use systems, artificial subterranean freshwaters, artificial wetlands, open ocean waters, artificial marine systems, shoreline systems, artificial shorelines																						
		Business Operation	Value Chain	Land Use Area (km ²)	Analysis Level	Biomes of the Relevant Facilities and Locations*																													
		Industrial Afforestation	Afforestation, Logging, Silviculture and other forestry activities (Indonesia)	1,100.00	Point	Tropical and sub-tropical forests, intensive land use systems, artificial subterranean freshwaters, artificial wetlands, open ocean waters, artificial marine systems, shoreline systems, artificial shorelines																													
		2) Other major land use situations in our Group's operations																																	
		<table><tr><th>Business Operation</th><th>Value Chain</th><th>Land Use Area (km²)</th><th>Analysis Level</th><th>Biomes of the Relevant Facilities and Locations*</th></tr><tr><td rowspan="4">Solar Power Generation</td><td rowspan="4">IPP (Independent Power Producer)</td><td>9.72</td><td>Country</td><td>Deserts and semi deserts, intensive land use systems, subterranean cave and rock systems, subterranean freshwaters, vegetated wetlands, rivers and streams, lakes, coastal inlets and lagoons, marine shelf, shoreline systems, maritime vegetation, artificial shorelines, brackish tidal systems</td></tr><tr><td>4.00</td><td>City</td><td>Tropical and sub-tropical forests, temperate boreal forests and woodlands, shrublands and shrubby woodlands, deserts and semi deserts, intensive land use systems, artificial subterranean freshwaters, lakes, marine shelf, open ocean waters, shoreline systems</td></tr><tr><td>5.16</td><td>State</td><td>Temperate boreal forests and woodlands, shrublands and shrubby woodlands, savannas and grasslands, deserts and semi deserts, Polar / alpine, intensive land use systems, artificial subterranean freshwaters, lakes, marine shelf, open ocean waters, deep sea floors, artificial marine systems, shoreline systems, maritime vegetation, artificial shorelines, brackish tidal systems</td></tr><tr><td>8.00</td><td>City</td><td>Savannas and grasslands, deserts and semi deserts, intensive land use systems, artificial subterranean freshwaters, lakes</td></tr><tr><td rowspan="2">Livestock</td><td>Fattening (Ranches, etc.)</td><td>46.10</td><td>State</td><td>Tropical and sub-tropical forests, temperate boreal forests and woodlands, shrublands and shrubby woodlands, savannas and grasslands, deserts and semi deserts, Polar / alpine, intensive land use systems, subterranean cave and rock systems, artificial subterranean spaces, subterranean freshwaters, artificial subterranean freshwaters, vegetated wetlands, lakes, artificial wetlands, coastal inlets and lagoons, marine shelf, open ocean waters, artificial marine systems, shoreline systems, maritime vegetation, artificial shorelines, brackish tidal systems</td></tr><tr><td>Primary Processing (Slaughterhouses, Processing Plants, etc.)</td><td>1.47</td><td>Point</td><td>Savannas and grasslands, intensive land use systems, artificial subterranean freshwaters, lakes, artificial wetlands</td></tr><tr><td></td><td>Total</td><td>74.45</td><td></td><td></td></tr></table>		Business Operation	Value Chain	Land Use Area (km ²)	Analysis Level	Biomes of the Relevant Facilities and Locations*	Solar Power Generation	IPP (Independent Power Producer)	9.72	Country	Deserts and semi deserts, intensive land use systems, subterranean cave and rock systems, subterranean freshwaters, vegetated wetlands, rivers and streams, lakes, coastal inlets and lagoons, marine shelf, shoreline systems, maritime vegetation, artificial shorelines, brackish tidal systems	4.00	City	Tropical and sub-tropical forests, temperate boreal forests and woodlands, shrublands and shrubby woodlands, deserts and semi deserts, intensive land use systems, artificial subterranean freshwaters, lakes, marine shelf, open ocean waters, shoreline systems	5.16	State	Temperate boreal forests and woodlands, shrublands and shrubby woodlands, savannas and grasslands, deserts and semi deserts, Polar / alpine, intensive land use systems, artificial subterranean freshwaters, lakes, marine shelf, open ocean waters, deep sea floors, artificial marine systems, shoreline systems, maritime vegetation, artificial shorelines, brackish tidal systems	8.00	City	Savannas and grasslands, deserts and semi deserts, intensive land use systems, artificial subterranean freshwaters, lakes	Livestock	Fattening (Ranches, etc.)	46.10	State	Tropical and sub-tropical forests, temperate boreal forests and woodlands, shrublands and shrubby woodlands, savannas and grasslands, deserts and semi deserts, Polar / alpine, intensive land use systems, subterranean cave and rock systems, artificial subterranean spaces, subterranean freshwaters, artificial subterranean freshwaters, vegetated wetlands, lakes, artificial wetlands, coastal inlets and lagoons, marine shelf, open ocean waters, artificial marine systems, shoreline systems, maritime vegetation, artificial shorelines, brackish tidal systems	Primary Processing (Slaughterhouses, Processing Plants, etc.)	1.47	Point	Savannas and grasslands, intensive land use systems, artificial subterranean freshwaters, lakes, artificial wetlands		Total	74.45	
Business Operation		Value Chain	Land Use Area (km ²)	Analysis Level	Biomes of the Relevant Facilities and Locations*																														
Solar Power Generation		IPP (Independent Power Producer)	9.72	Country	Deserts and semi deserts, intensive land use systems, subterranean cave and rock systems, subterranean freshwaters, vegetated wetlands, rivers and streams, lakes, coastal inlets and lagoons, marine shelf, shoreline systems, maritime vegetation, artificial shorelines, brackish tidal systems																														
	4.00		City	Tropical and sub-tropical forests, temperate boreal forests and woodlands, shrublands and shrubby woodlands, deserts and semi deserts, intensive land use systems, artificial subterranean freshwaters, lakes, marine shelf, open ocean waters, shoreline systems																															
	5.16		State	Temperate boreal forests and woodlands, shrublands and shrubby woodlands, savannas and grasslands, deserts and semi deserts, Polar / alpine, intensive land use systems, artificial subterranean freshwaters, lakes, marine shelf, open ocean waters, deep sea floors, artificial marine systems, shoreline systems, maritime vegetation, artificial shorelines, brackish tidal systems																															
	8.00		City	Savannas and grasslands, deserts and semi deserts, intensive land use systems, artificial subterranean freshwaters, lakes																															
Livestock	Fattening (Ranches, etc.)	46.10	State	Tropical and sub-tropical forests, temperate boreal forests and woodlands, shrublands and shrubby woodlands, savannas and grasslands, deserts and semi deserts, Polar / alpine, intensive land use systems, subterranean cave and rock systems, artificial subterranean spaces, subterranean freshwaters, artificial subterranean freshwaters, vegetated wetlands, lakes, artificial wetlands, coastal inlets and lagoons, marine shelf, open ocean waters, artificial marine systems, shoreline systems, maritime vegetation, artificial shorelines, brackish tidal systems																															
	Primary Processing (Slaughterhouses, Processing Plants, etc.)	1.47	Point	Savannas and grasslands, intensive land use systems, artificial subterranean freshwaters, lakes, artificial wetlands																															
	Total	74.45																																	
* Biomes are cited from the IUCN Global Ecosystem Typology.																																			
Data Source: KEITH, David A., et al. "A function-based typology for Earth's ecosystems." Nature, 2022, 610.7932: 513-518.																																			

Metric No.																														
C2.1	Driver of Nature Change	Pollution / Pollution Removal																												
	Indicator	Wastewater Discharged																												
	Metric	• Total volume of water discharged –Ocean –Surface water –Underground / wells –Off-site water treatment –Others																												
	Performance	Please refer to ➤ Environmental Data: Water Management – Wastewater Discharge.																												
C2.2	Driver of Nature Change	Pollution / Pollution Remediation																												
	Indicator	Waste Generation and Disposal																												
	Metric	• Total amount of waste generated • Amount of recycled * Scope includes Marubeni Corporation and consolidated subsidiaries.																												
	Performance	Please refer to ➤ Environmental Data: Environmental Management – Waste Generated.																												
C2.4	Driver of Nature Change	Pollution / Pollution Removal																												
	Indicator	Total volume of Non-GHG air pollutants																												
	Metric	• Nitrogen oxides (NOx) • Volatile organic compounds (VOC) • Sulfur oxides (SOx)																												
	Performance	Please refer to ➤ Environmental Data: Environmental Management – NOx, SOx, VOC Emissions.																												
C3.0	Driver of Nature Change	Resource Use / Resource Replenishment																												
	Indicator	Water Withdrawal and Consumption from areas of water scarcity																												
	Metric	• Total volume of water withdrawal –Water withdrawal by source • Water withdrawal from water-stressed regions																												
	Performance	Please refer to ➤ Environmental Data: Water Management – Water Withdrawal and ➤ Water Withdrawal from Water-Stressed Regions. The Marubeni Group also contributes to the efficient use of water through operations such as water supply and sewerage businesses, promoting the spread of modern urban water systems. Water Supply Population (in tens of thousands) <table><tr><th>Water Stress* Level</th><th>Desalination / Purification</th><th>FY2020</th><th>FY2021</th><th>FY2022</th><th>FY2023</th></tr><tr><td rowspan="2">High</td><td>Desalination</td><td>886</td><td>886</td><td>1,111</td><td>1,111</td></tr><tr><td rowspan="2">Purification</td><td>1,307</td><td>1,312</td><td>1,299</td><td>1,328</td></tr><tr><td>Low</td><td></td><td>130</td><td>130</td><td>130</td><td>130</td></tr><tr><td colspan="2">Total</td><td>2,323</td><td>2,328</td><td>2,540</td><td>2,569</td></tr></table> * Water Stress: A condition where human water demand significantly exceeds available water resources. Major causes include population growth, urbanization, climate change, and excessive water use in agriculture or industry.	Water Stress* Level	Desalination / Purification	FY2020	FY2021	FY2022	FY2023	High	Desalination	886	886	1,111	1,111	Purification	1,307	1,312	1,299	1,328	Low		130	130	130	130	Total		2,323	2,328	2,540
Water Stress* Level	Desalination / Purification	FY2020	FY2021	FY2022	FY2023																									
High	Desalination	886	886	1,111	1,111																									
	Purification	1,307	1,312	1,299	1,328																									
Low			130	130	130	130																								
Total		2,323	2,328	2,540	2,569																									

Initiatives

Conservation of Biodiversity and Habitats

Asian Waterbird Census

TeaM Energy Foundation, Inc. (TEFI) was established to handle the CSR activities of TeaM Energy Corporation (TeaM Energy), an independent power producer in the Philippines in which Marubeni owns a 50% stake. In cooperation with the > Wild Bird Club of the Philippines (WBCP) and the > Department of Environment and Natural Resources, TEFI has participated in the Asian Waterbird Census, an Asian aquatic bird population survey conducted by the international NGO > "Wetlands International", every year since 2010, and collects data on waterbirds within a 10-kilometer radius of the Pagbilao and Sual power stations. The survey has confirmed that the environmental impact on the neighborhoods around the power stations is low, and a healthy environment is being maintained. The areas around the Pagbilao and Sual power stations are sanctuaries of the Philippine duck (*Anas luzonica*), an endemic species of the Philippines that is designated as "vulnerable" in the > IUCN Red List of Threatened Species 2014 issued by the International Union for Conservation of Nature. The sites of the power stations are resting spots for many other birds, including migratory birds.

TEFI takes steps to safeguard the habitat of these birds through noise reduction measures, limitations on development, and habitat relocation in the event of development.

During the pandemic from 2020 to 2022, TEFI held off its bird watching activities with WBCP. Sual Power Station and Pagbilao Power Station have separate monitoring surveys conducted by external parties.

In a survey conducted in 2021 in Sual Power Station, a total of 1,056 bird individuals in 56 species and 34 families were recorded.

Three threatened birds were recorded in 2021: *Lonchura oryzivora* or Java sparrow, *Streptopelia bitorquata* or Island collared dove, and *Anas luzonica* or Philippine duck.

For *Anas Luzonica* or Philippine duck, 260 were recorded in the 1st semiannual report and 60 for the 2nd semiannual report, utilizing the man-made lagoons in the area.

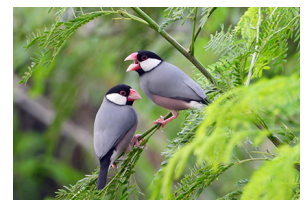
There were no additional species recorded, with the overall total of recorded birds remaining at 129 species. However, recurrence of *Motacilla cinerea* or Grey wagtail and *Orthotomus derbianus* or Grey-backed tailorbird were noted. The former was last observed in 2011 while the latter was in 2015.

In a survey conducted in 2021 in Pagbilao Power Station, nine species are breeding residents.

Nine of 18 species are associated with non-forest to forest habitats. Only one threatened species, *Anas luzonica*, was recorded, while 16 are classified as Least Concern by IUCN.

Other than Pagbilao Power Station, monitoring is also conducted in three other locations: 1) Binahaan Watershed Forest Reserve, 2) Binahaan Mangrove Forest and 3) Danlagan Mangrove Forest.

Across the four locations, 584 individuals of 39 bird species were recorded.



Anas luzonica or Philippine duck and *Lonchura oryzivora* or Java sparrow photographed from monitoring stations, within and outside Pagbilao Power Station.

Afforestation Program

TEFI is carrying out projects to plant acacia, eucalyptus, and other tree varieties at its Pagbilao and Sual power stations since 2001 in partnership with neighboring communities as well as NGOs such as Sioasio East Forest Developers Association. The average survival rate of the saplings planted in Sioasio is 96.5% (as of March 2023). To date, approximately 100 hectares at Sual and 328 hectares at Pagbilao have been planted and are being maintained since 2001.

In 2021, Pagbilao Power Station planted a total of 300 native trees within 4,806 m² of station premises where employee volunteers planted seedlings of Agoho, Narra and Talisay.



Afforested area

TeaM Sual Corporation on the other hand has been rehabilitating the coast of Barangay Baquioen of Sual through annual mangrove planting and maintenance for the past 5 years.

In 2021, Sual Power Station employee volunteers together with representatives of Baquioen Barangay Government unit in attendance planted 3,000 mangrove seedlings along the coast of Barangay Baquioen in Sual.

In 2022, 2,000 mangrove seedlings were planted in that area with employee volunteers, and representatives from the same government unit, the local school, and contractors.

In 2022, TEFI, with an external partner and members of the local community, planted 21,000 mangrove propagules in Barangays Victoria and Pilar, both in the Santiago Island of Bolinao town, Pangasinan; this is under TEFI's Project CATCH ME (Community Alliance Transforming Coast Habitat and Mangrove Ecosystem).

Until the ownership of Sual and Pagbilao power stations are transferred to the state-run power company from 2024 through 2025, Marubeni will continue to support the protection and maintenance of a total of about 144,000 hectares of natural forests where TEFI has been carrying out conservation and afforestation, as well as at other activity areas, with the goal to protect biodiversity and to foster forest preservation.

Tree Planting Activities to Reduce and Restore Negative Impacts on Biodiversity

Maynilad Water Services, Inc. (Maynilad), a Marubeni Group company engaged in water supply and sewerage services in Metropolitan Manila, has planted more than 242,000 mangrove propagules in the coastal area for the purpose of land conservation (including conservation of species), reduction of negative impacts caused by the population growth, and recovery. This activity employs fishermen in some areas and provides them with additional income opportunities. With the support of the country's government agencies (such as the Department of Environment and Natural Resources and local government entities), businesses, and volunteers, the company also arranges events to educate people on responsible water consumption and proper wastewater management. Together with our stakeholders, Maynilad will continue to invest in local communities through tree planting activities to conserve ecosystems, prevent flooding, provide high-quality water and operate the sustainable water business.

Engagement to Reduce Loss of Biodiversity

Forest Conservation Activities and Providing Livelihoods to Indigenous People

Since 2010, TEFI has had various activities in implementing a Community Carbon Pools Program (C2P2) in the municipality of General Nakar in the province of Quezon, in cooperation with the Philippine Department of Environment and Natural Resources, local residents, and international and local NGOs.

TEFI conducted training and provided funding to a honey manufacturing facility powered by solar energy. In addition to honey, the communities of General Nakar produce resin, food and other non-timber products and also engage in textile dyeing and tea harvesting.

These activities provided livelihood intended to improve living standards for 34 tribal communities and over 2,000 local residents, and to help preserve about 144,000 hectares of forest and prevent deforestation. They also contribute to the reduction of GHG emissions caused by deforestation, the long-term conservation of forests, and the promotion of carbon storage with forests.



Forest conservation activities



Interaction with local residents



Products and honey produced

Contribution to Sustainable Forest Management and Biodiversity Conservation Through Engagement with the State Government of Western Australia

WA Plantation Resources Pty., Ltd. ("WAPRES"), an Australian plantation and wood chip business wholly owned by Marubeni Corporation, has been engaging with the local government to comply with local laws and regulations, including the Environment Protection and Biodiversity Conservation Act 1999 (as amended), and has obtained international sustainable forest certifications.

➤ [Click here to view Forest Management and Forestry Certification at Marubeni Group](#)

WAPRES believes that sustainable forest management contributes to the conservation of biodiversity, and will continue such business activities.

Contributing to Biodiversity Conservation Through a Desalination and Water Transmission Project in Chile

In connection with the desalination and water transmission project for Corporación Nacional del Cobre de Chile (CODELCO) (the Project), prior to participating in the Project we identified the potential impacts on biodiversity, and took measures to avoid and reduce negative impacts.

➤ [Click here to view Conclusion of a Loan Agreement and Start of Construction under a Long-Term Water Sale Agreement for a Desalination and Water Transmission Project for the National Copper Corporation of Chile](#)

Conducting Due Diligence

Part of the proposed site of the Project falls within a priority conservation area for the *Eriosyce Laui*, a species of cactus that is listed as an endangered species (EL cactus). Therefore, in order to conserve the species, prior to our participation in the Project an external expert was retained to conduct due diligence to determine whether the EL cactus is present at the proposed construction site in the priority conservation area and the status of its habitat. As a result, it was confirmed that the EL cactus is not present at the proposed construction site.

Formulation of Biodiversity Action Plan (BAP) and Biodiversity Management Plan (BMP)

In this Project, a Biodiversity Action Plan (BAP) was developed by identifying areas with sites, species, and functions of particular importance for conservation. Detailed surveys of the relevant areas are conducted by experts, and the results are reflected in the Biodiversity Management Plan (BMP), which is continuously monitored (audited) in order to conserve biodiversity.

Entry into the Salmon Farming Business via Recirculating Aquaculture System

Responding to the Rising Global Demand for Marine Products

The improvement of living standards in the developing countries and growing health consciousness in the developed countries have resulted in the yearly increase in the global demand for marine products. Nevertheless, as the fish catch from fisheries has remained stable for the past 30 years, aquaculture has taken on an increasing significance. Within this field, in the sub-industry of salmon farming, which has been geographically limited due to the scarcity of coastal regions that are suited to seawater culture, expectations are especially high for the growth of land-based salmon farming through the use of a Recirculating Aquaculture System (hereinafter "RAS"^{*1}), which is not limited by geographical conditions.

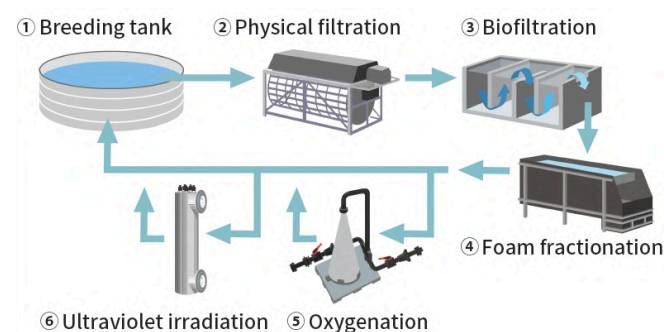
^{*1} A Recirculating Aquaculture System (RAS) is a farming method that filters and circulates 90% or more of the water used in an enclosed, land-based facility. Given that water temperature, water quality, and other conditions are controlled within the facility, it is minimally impacted by outside factors.

In April 2020, Marubeni, jointly with Nippon Suisan (Europe) B.V., acquired shares of Danish Salmon A/S (hereinafter "DS"), a globally top-ranked company with a track record in RAS production. Marubeni will meet the growing global demand for marine products through DS, one of the few companies to have established manufacturing expertise and technology in this field.

Contribution to Sustainability

RAS has minimal impact on the surrounding environment and the ecosystem, as it uses and recirculates water within an enclosed facility, thereby reducing water pollution and the risk of escaping farmed fish. RAS also has an established control framework and is thus capable of retaining records, making it a farming method that supports traceability. It is also being regarded as a viable method of effectively resolving future shortages in protein supply which may occur in conjunction with the growing global population.

Marubeni is ready to contribute to the resolution of social problems by not only meeting the growing global demand for marine products but also providing a stable supply of environmentally-friendly marine products.



The mechanism of RAS farming



Receipt of Certification as “Nationally Certified Sustainably Managed Natural Site”

Forest Owned by the Tokiwa Property Ward in Noshiro City, Akita Prefecture

Through an initiative led by Marubeni in collaboration with the Shirakami Forestry Cooperative and the Tokiwa Property Ward, a 717.71 ha forest owned by the Tokiwa Property Ward in Noshiro City, Akita Prefecture, was certified as a “Nationally Certified Sustainably Managed Natural Site” in the second half of fiscal year 2024.

“Nationally Certified Sustainably Managed Natural Sites” are areas located outside legally designated protected areas such as national parks, that are officially recognized by the government (the Ministry of the Environment) as sites where biodiversity conservation is being promoted through private sector and community initiatives.

In addition, this site has been registered in the international database as an OECM (Other Effective area-based Conservation Measures). We recognize that this registration represents an important initiative contributing to the realization of the international goal of Nature Positive—restoring and enhancing biodiversity by 2030—as well as to the achievement of the “30 by 30” target, which aims to protect or conserve at least 30% of land and sea areas by 2030.



The newly certified area is adjacent to the Shirakami Sanchi, a UNESCO World Natural Heritage site. Like the Shirakami Sanchi, it consists mainly of beech and Japanese oak (Mizunara) forests, and approximately 25% of the total area retains its primeval vegetation. The area’s high biodiversity has been duly recognized due to the presence of a rich variety of flora and fauna, including rare species such as the Japanese serow. Furthermore, this lush forest plays an important role as a sink for GHGs (greenhouse gases), and we plan to generate J-Credits derived from the forests within this site.

Going forward, we will continue to make every effort to protect and conserve this precious forest, thereby contributing to the achievement of the global 30 by 30 target.

➤ [Japan's 30by30 Roadmap](#) [832KB]

The Handling of RSPO/ISCC Certified Products

Roughly 30% of the palm oil handled by our subsidiary Pasternak, Baum & Co., Inc. are RSPO/ISCC/RFA certified products.

We are doing our part to promote such certified products by responding to the needs of our environmentally conscious customers.

Environment

Contributing Toward the Building of the Circular Economy

| Strategy ▼ | Governance ▼ | Risk Management ▼ |

Strategy

In accordance with the spirit grounded in “Fairness, Innovation and Harmony,” the Marubeni Group is proudly committed to social and economic development and safeguarding the global environment by conducting fair and upright corporate activities as our Management Philosophy. The Marubeni Group’s long-term strategy is to put our Management Philosophy into practice and to create value and grow by anticipating the challenges of customers and society and providing solutions.

The challenges faced by customers and society are diverse and constantly evolving. To stay ahead of these changes, the Marubeni Group continues to evolve, using four key aspects of diversity—1. ➤ human capital, 2. ➤ regions, 3. ➤ sectors, and 4. ➤ business models—as important differentiators. This is major strength and source of value creation for the Marubeni Group. To further enhance this strength, we have identified the “Fundamental Materiality (1. Human Capital That Creates New Value, 2. Robust Management Foundations, 3. Governance That Supports Coexistence with Society)” and are committed to its continuous strengthening.

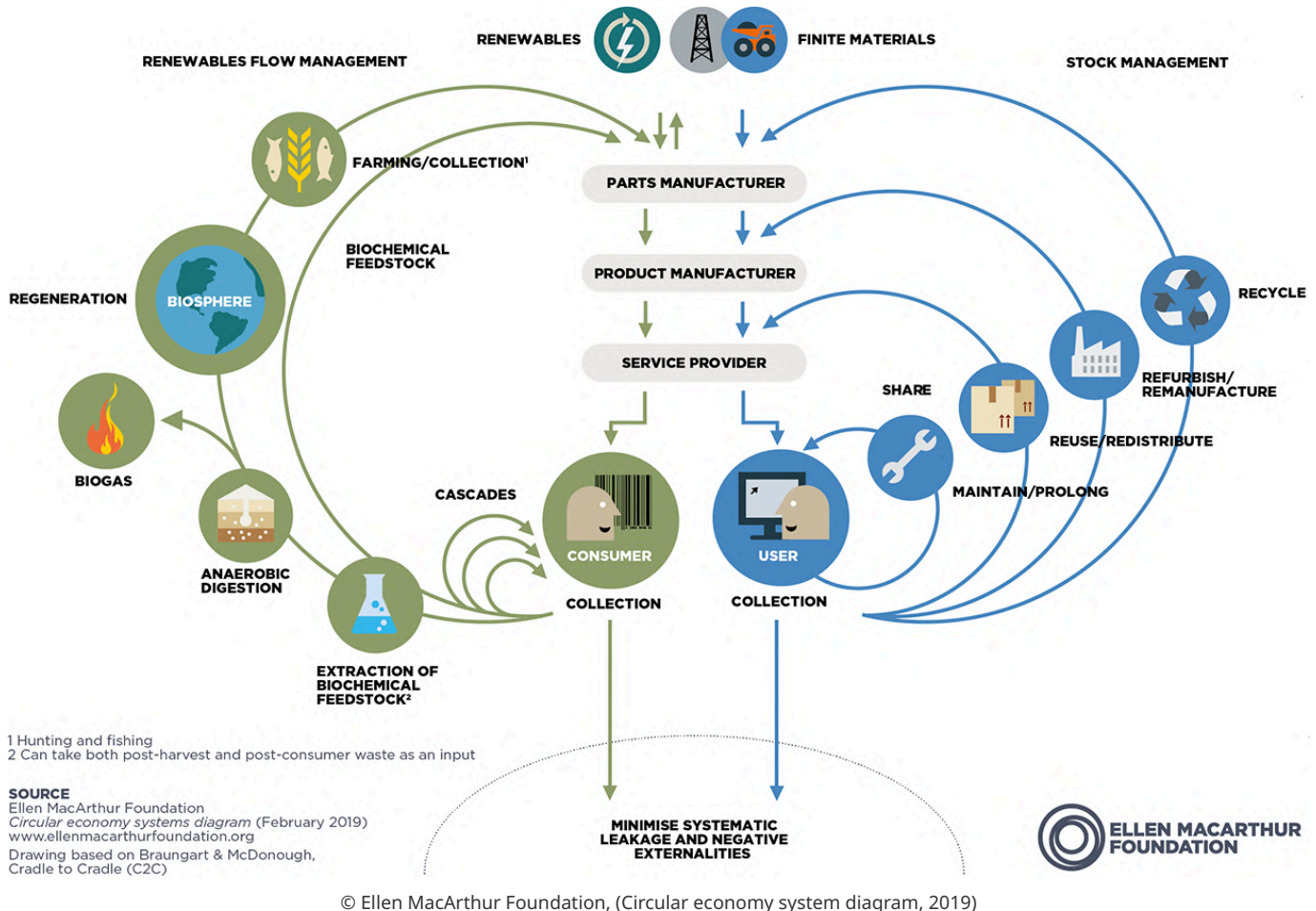
Contributing Toward the Building of the Circular Economy is a key factor that impacts the growth of the Marubeni Group and, as such, has been identified as one of the issues under “Environmental & Social Materiality.” The Marubeni Group recognizes that the transition from a linear economy and reducing the risk of resource depletion are vital for realizing a sustainable future. By working together with our stakeholders to build a sustainable society, for example through effectively utilizing of resources, enhancing sustainability, and improving the efficiency of energy usage, we can build a sustainable business model that will achieve further growth and development for the Marubeni Group.

* For details on “Fundamental Materiality” and “Environmental & Social Materiality,” please refer to the ➤ Materiality for the Marubeni Group.

* The following, with some exceptions, is based on the information available as of September 2025.

Major Initiatives

The Marubeni Group, referencing the Butterfly Diagram (Source: > Ellen MacArthur Foundation ) defines five processes illustrating the circulation of finite materials as its “Contributing Toward the Building of the Circular Economy” and is advancing initiatives accordingly.



Five Processes

> 1. Share	The use of a product by multiple users. It is a practice that retains the highest value of a product by extending its use period.
> 2. Maintain/ Prolong	Keep a product in its existing state of quality, functionally and/or cosmetically, to guard against failure or decline. It is a practice that retains the highest value of a product by extending its use period.
> 3. Reuse/ Redistribute	Reuse: The repeated use of a product or component for its intended purpose without significant modification. Small adjustments and cleaning of the component or product may be necessary to prepare for the next use. Redistribute: Divert a product from its intended market to another customer so it is used at high value instead of becoming waste. For example, a supermarket can redistribute surplus edible food to a food-bank.
> 4. Refurbish/ Remanufacture	Refurbish: Return a product to good working order. This can include repairing or replacing components, updating specifications, and improving cosmetic appearance. Remanufacture: Re-engineer products and components to as-new condition with the same, or improved, level of performance as a newly manufactured one. Remanufactured products or components are typically provided with a warranty that is equivalent to or better than that of the newly manufactured product.
> 5. Recycle	Transform a product or component into its basic materials or substances and reprocessing them into new materials. Embedded energy and value are lost in the process. In a circular economy, recycling is the last resort action.

1. Share (Click > here to view the five processes)

Aircraft Leasing Business

> Finance, Leasing & Real Estate Business Division

Since 2013, Marubeni has been Aircastle Limited's largest shareholder and has supported its growth by seconding management personnel and through other initiatives. Aircastle has steadily built a portfolio of high-quality assets while maintaining an investment-grade credit rating.

Aircastle operates a global platform that leases aircraft to airlines worldwide, with a primary focus on used aircraft—a segment that demands specialized expertise. Managing used aircraft requires careful assessment of maintenance condition and residual value risk, and Aircastle has strong capabilities in aircraft appraisal and asset management.

Leveraging its solid industry presence, long-standing customer relationships, disciplined asset management, and stable access to funding, Aircastle acquires and disposes of aircraft nimbly. This enables it to respond promptly to diverse customer needs while continuously strengthening its platform.

【Related Information】

- > Aircastle Limited 
- > Marubeni Corporation Integrated Report 2024 "Aircastle"  [35.5MB]
- > Scenario Analysis "Aircraft Leasing Business (Aircastle)"



Container and Pallet Material Circulation Business in International Logistics

> IT Solutions Division

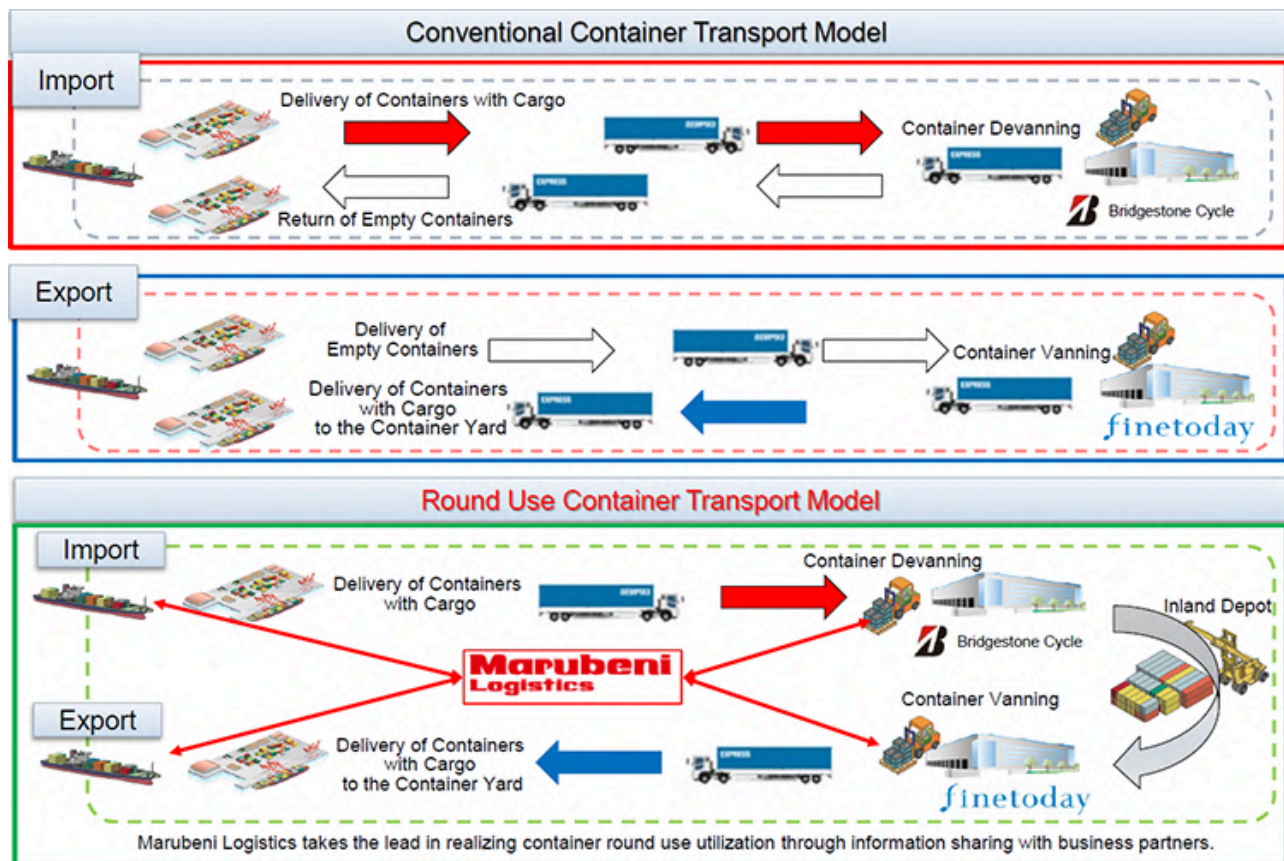
Marubeni Logistics Corporation has established mechanisms (Container Round Use, Pallet Round Use) to share maritime containers and pallet materials used internationally among different shippers. These initiatives contribute to reducing environmental impact in the logistics sector for building sustainable supply chains and addressing issues such as the so-called "2024 Problem."

(1) Container Round Use^{*1}

> Marubeni Logistics Corporation , > Bridgestone Cycle Co., Ltd. , and > FineToday Co., Ltd.  have jointly started full-scale operations of "Container Round Use" among different importers and exporters in October 2023, as an initiative to reduce environmental impact in logistics and address issues such as the "2024 Problem" (truck driver shortages due to new overtime regulations) while building sustainable supply chains.

This initiative, under a scheme established by Marubeni Logistics, involves directly transporting containers used by Bridgestone Cycle for importing bicycle products and parts from China to FineToday's logistics hub for use in exporting products to China. This eliminates the need for empty container return and delivery trips between each company's facilities and the Port of Tokyo, achieving more efficient logistics (see "Initiative Overview Diagram" below).

^{*1} An initiative to transport empty containers directly to exporting companies for reuse as export containers after unloading imported containers, instead of returning them to the port.



Initiative Overview Diagram

[Related Information]

➤ Marubeni Logistics, Bridgestone Cycle, and FineToday Start Joint Maritime Container Sharing—Promoting Environmental Impact Reduction and Addressing the 2024 Problem for Sustainable Logistics (Japanese only)

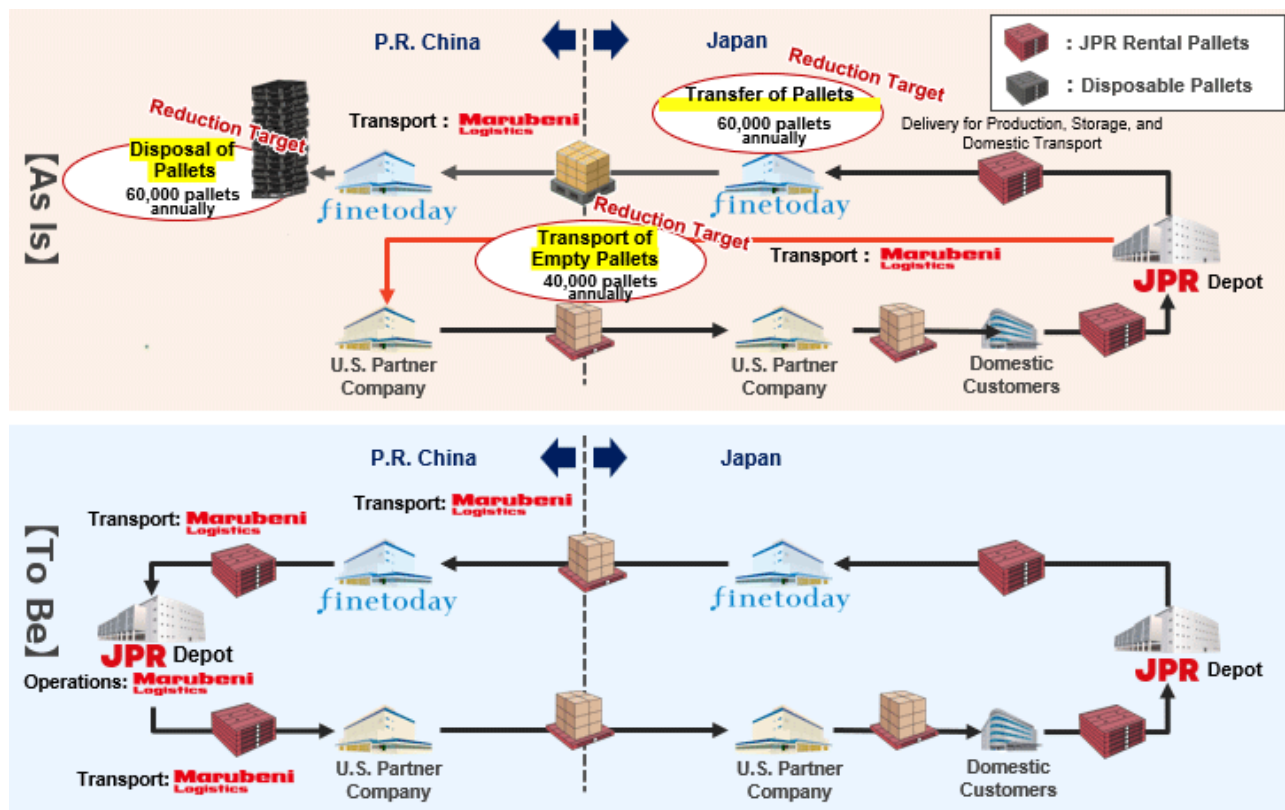
(2) Pallet Round Use

Marubeni Logistics Corporation, FineToday Co., Ltd., and ➤ Japan Pallet Rental Corporation ☐ have collaboratively launched "Pallet Round Use" with their U.S. partner company, utilizing domestic rental pallets for loading/unloading, transportation, and storage in product logistics, matching exports and imports between two shippers across Japan and China, and circulating these pallets overseas.

In Japan, a circulation scheme for rental pallets across manufacturers, wholesalers, and retailers has been established. This initiative involves circulating domestic rental pallets for exports and imports without transfer to overseas pallets, matching product exports and imports between two shippers to contribute to efficient international logistics.

Additionally, as a contribution to addressing the 2024 Problem, eliminating the need for transfer to overseas pallets for FineToday's exports to China could reduce truck driver waiting times by up to 5,000 hours*². Furthermore, this four-company collaboration eliminates the disposal of disposable overseas pallets for FineToday and the pre-transport of empty pallets for exports to Japan by the U.S. partner company, contributing to CO₂ emission reductions.

*² Transfer from domestic rental pallets to disposable export pallets and rewinding films to prevent load collapse previously required up to 5 minutes per pallet, with an estimated annual workload of approximately 60,000 pallets.



Overview Diagram of Round Use of Domestic Pallets

[Related Information]

- Four-Company Alliance: Export-Import Matching Using Domestic Rental Pallets (Marubeni Logistics Corporation) (Japanese only) □

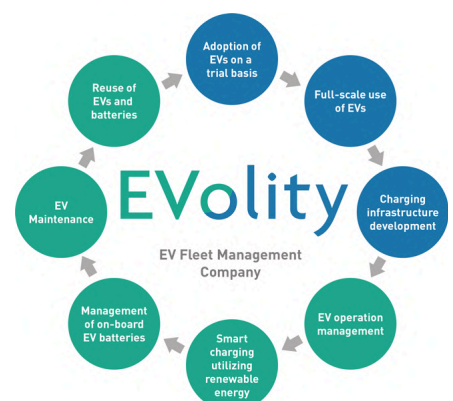
2. Maintain/Prolong (Click ➤ here to view the five processes)

Fleet Management Service Business for Corporate EVs

- Aerospace & Mobility Division

Marubeni and Panasonic Holdings Corporation (Panasonic HD) have established ➤ EVolity Corporation □ to provide fleet management services for corporate electric vehicles (EVs). Through supporting corporate clients from adoption and operation to secondary use, EVolity contributes to climate change mitigation and the realization of a circular economy.

EVolity provides a digital management system compatible with multi-brand vehicles and chargers, offering one-stop support for corporate EV adoption and operation. It supports daily operations with a real-time fleet and charging management service for vehicle location and charging status, while utilizing Panasonic HD's battery degradation diagnostic technology to provide range prediction and anomaly detection. In partnership with collaborating companies, EVolity leverages Panasonic HD's battery degradation diagnostic technology to develop solutions that enhance the value of EV secondary use, establish EV leasing with accurate residual value assessments, and implement preventive maintenance for EVs, striving to maximize value across the EV lifecycle and contribute to a circular economy.



EVolity leverages Marubeni's expertise and sales infrastructure in the mobility and EV sectors, combined with Panasonic Group's battery-related expertise in the battery degradation diagnostic technology, grounded in the battery material expertise unique to a leading battery manufacturer, to provide not only current battery degradation diagnostics but also future lifespan predictions. With an eye toward the secondary use of EVs and automotive batteries, it aims to build a circular economy model. By comprehensively supporting corporate EV adoption, it contributes to environmentally conscious business activities and enhanced corporate value.

【Related Information】

- EVolity Corporation [📄](#)
- EVolity: Transforming EV Adoption with Comprehensive, Customer-Centric Solutions
- Establishment of EVolity Corporation: A Company Providing Fleet Management Services for Commercial Electric Vehicles (EVolity offers comprehensive support for the entire process, from adoption through to operations of EVs)
- EVolity and Fuyo Lease Group Start Supporting EV Adoption and Operation for JAL at Narita International Airport (EVolity Corporation) (Japanese only) [📄](#)
- Orix Auto, EVolity, and Panasonic HD Start Joint Demonstration Experiment Utilizing Battery Degradation Diagnostics to Enhance the Secondary Distribution Value of Electric Vehicles (EVolity Corporation) (Japanese only) [📄](#)

3. Reuse/Redistribute (Click ➤ here to view the five processes)

The Land-Based Recirculating Aquaculture Business

➤ Food & Agri Business Division

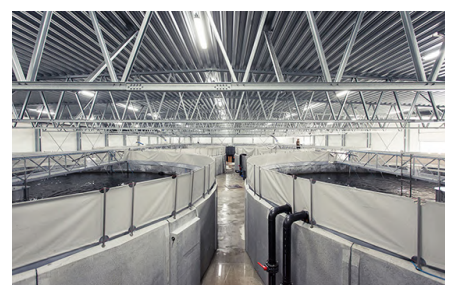
Marubeni is promoting initiatives related to Atlantic salmon in the land-based recirculating aquaculture system (RAS: Recirculating Aquaculture System) both domestically and internationally.

Due to population growth, improved dietary quality in emerging countries, and increasing health consciousness in developed countries, global demand for salmon is expected to rise. However, the supply of wild and sea-based farmed salmon is reaching its limit due to ecosystem conservation and limited suitable regions for sea-based aquaculture. Under these circumstances, RAS is expected to be a means of sustainably and stably supplying aquatic products, which is not constrained by geographical limitations with low environmental impact, reducing impacts on surroundings and ecosystems such as water pollution and fish escape.

Marubeni aims to expand environmentally conscious food businesses and contribute to a stable food supply.

【Related Information】

- Scope #39 "Danish Salmon A/S"
- Commencement of Sales of FUJI ATLANTIC SALMON, the First Land-farmed Atlantic Salmon in Japan



Danish Salmon A/S (Denmark)

Used Smartphone Reuse Business

> Lifestyle Division

Marubeni has invested in IOSYS Holdings Co., Ltd., the parent company of IOSYS Co., Ltd., which operates an IT device purchase and sales business including smartphones and PCs, to promote initiatives in the consumer smartphone reuse business.

In recent years, the smartphone reuse market has seen rapid expansion due to rising interest driven by the increasing prices of smartphones themselves. Additionally, the reuse of smartphones promotes a circular economy, and the expansion of the reuse market contributes to reducing environmental impacts. Against this background, Marubeni has been engaged in the reuse business for smartphones, PCs, and other devices for corporate clients through its subsidiary, Mobile Care Technologies Co., Ltd.

IOSYS has been involved in the reuse business for IT devices since its foundation in 1996. Currently, IOSYS purchases smartphones and other devices from individual consumers and corporations in Japan, performs data erasure and inspections, and then sells them to domestic individual consumers and domestic and overseas corporations, through its domestic stores and e-commerce website.

Marubeni will leverage IOSYS's services and products tailored to diverse consumer needs, combined with Marubeni's extensive network of business partners, to strengthen and expand the used smartphone reuse business.

【Related Information】

- > Investment in IOSYS, a Company Engaged in the Purchase and Sale of Smartphones and Other Devices
- > IOSYS Co., Ltd. (Japanese only) [📄](#)
- > Mobile Care Technologies Co., Ltd. [📄](#)



IOSYS outlet (Shinjuku West Exit)



IOSYS outlet (Osaka Trade-in Center)

Used Solar Panel Reuse and Recycling Business

> Power & Infrastructure Services Division

Marubeni and HAMADA Co., Ltd. have established a new company, Rexia Corporation, which has started to provide reuse and recycling-related services involving the sale, purchase, and recycle of used solar panels.

Reuse : To date, initiatives to reuse used solar panels have stalled in Japan due to difficulties in guaranteeing their quality and warranty. Rexia purchases panels that have been determined to be reusable through an established performance inspection methodology. It subsequently sells these panels under a product warranty scheme, providing defect liability insurance instituted through its partnership with a major insurance company.

Recycle : Used solar panels unsuitable for reuse due to damage or significant deteriorations in performance have conventionally been disposed of in landfills. Rexia promotes the collection and recycling of used solar panels unsuitable for reuse by separating their materials into glass, cell sheets, and other resources.

【Related Information】

- > Launch of Reuse and Recycling Services for Used Solar Panels
- > HAMADA Co., Ltd. [📄](#)
- > Rexia Corporation (Japanese only) [📄](#)



Pioneering a Waste-Free World,
Crafting a Circular Future.

4. Refurbish/Remanufacture (Click ▶ here to view the five processes)

Battery Business Through Secondary Use of Automotive Batteries

▶ Power & Infrastructure Services Division

Marubeni has invested in B2U Storage Solutions, Inc. (B2U), which develops grid-scale battery businesses^{*3} using used automotive batteries in California, USA.

B2U develops container-type batteries that efficiently reuse batteries used in electric vehicles for stationary applications, providing energy storage services for grid stabilization. B2U's proprietary technology enables low-cost and easy secondary use of used automotive batteries as stationary batteries without disassembly, reinspection, or repackaging.

With the global spread of EVs, the appropriate reuse and recycling of rapidly increasing used automotive batteries for resource efficiency has become a significant social issue. Additionally, California is one of the world's leading regions for renewable energy resource adoption, and the massive introduction of solar power facilities has led to surplus power during daylight hours and shortages at night, widening the diurnal gap in power supply and demand.

To alleviate the grid burden caused by the increasing use of unstable renewable energy power generation, Marubeni and B2U aim to provide higher-value adjustment functions by using used automotive batteries to balance power supply and demand and developing digital tools to optimize battery operations.

Through its investment in B2U, Marubeni contributes to achieving California's renewable energy objectives^{*4} and stable power supply, realizing the contribution to low-carbon/decarbonization through our business outlined in "The Marubeni Long-Term Vision on Climate Change" announced in March 2021, while also contributing to a circular economy.

^{*3} Grid-Scale Batteries: Batteries used in connection with the entire power system from power generation to transmission and distribution.

^{*4} Renewable energy objectives in California: Renewable energy in California is currently 30%. The state has set goals to implement 44% renewable energy by 2024, 60% by 2030, and 100% by 2045.

【Related Information】

▶ Marubeni Closes Investment in B2U Storage Solutions ~Repurposing Second Life Batteries~

▶ B2U Storage Solutions, Inc. [📄](#)

▶ Marubeni Signs a Memorandum of Understanding with VinFast to Repurpose Used EV Batteries in a Circular Economy



Energy storage facility using EV batteries

5. Recycle (Click > here to view the five processes)

Aircraft Parts Recycling Business

> Aerospace & Mobility Division

While the aviation market continues to grow annually with increasing passenger demand, the need for airlines, facing intensifying global competition, to rethink their cost reduction strategies has also been rising in recent years.

Amid this, Marubeni entered the aircraft aftermarket business in 2012 by acquiring shares in Magellan Aviation Group LLLP (Magellan), a U.S. company selling rotatable parts*⁵ for the aviation aftermarket, and has since expanded its business.

In 2023, through its wholly owned subsidiary, Marubeni Aviation Asset Investment LLC, a holding company for the aviation aftermarket business in the U.S., Marubeni acquired a 50% stake in Diversified Aero Services, LLC (DASI), one of the world's largest aircraft parts sales companies based in Florida, U.S. DASI procures and sells surplus parts*⁶ from airlines and maintenance companies.

By leveraging DASI's strengths in diverse surplus inventory solutions and combining them with Magellan's capabilities, Marubeni aims to enhance its proposal capabilities in the aviation aftermarket business, expand its revenue base, and maximize value provided to customers.

*⁵ Rotable Parts: Parts that can be reused after repair.

*⁶ Surplus Parts: New parts procured from parts manufacturers that remain unused as surplus inventory.

【Related Information】

- > Strategic Platform Business: Mid-Term Management Strategy GC2027  [1.5MB]
- > Marubeni Corporation Integrated Report 2025 "Aviation Aftermarket and Asset Trading Business"  [21.5MB]
- > Magellan Aviation Group 
- > Scope #23 "Magellan Aviation Group"
- > Expansion of Aircraft Aftermarket Business through Acquisition of Shares in DASI of the United States
- > Establishment of Karbon, an Independent Aircraft Maintenance and Teardown Joint Venture in Malaysia

Metal Recycling Business

> Metals & Mineral Resources Division

In its environmental and circular economy businesses, in addition to ongoing efforts in ferrous and non-ferrous recycling, Marubeni has invested in Cirba Solutions, LLC (Cirba) in the U.S. and Altilium Metals Ltd. (Altilium) in the U.K. to engage in battery recycling businesses. Additionally, Marubeni has invested in Nguyet Minh 2 Trading-Services-Environment Joint Stock Company (NM2) in Vietnam to engage in aluminum recycling businesses.



Cirba Solutions, LLC (U.S.)

Battery Recycling Business

With the spread of EVs and the expansion of an electrified society, the volume of batteries is expected to increase. At the same time, the mining of rare metals for batteries poses challenges to environment and economic security.

Efficient recycling of batteries is essential to address these challenges. Marubeni is contributing to solutions through its investments in Cirba in the U.S. and Altium in the U.K., both of which possess technologies that help reduce environmental impact and promote a sustainable society.

Aluminum Recycling Business

Aluminum is considered an essential metal for achieving a decarbonized society and reducing environmental impact by decreasing plastic usage. In Vietnam, which has the highest beverage can consumption in Southeast Asia, the Extended Producer Responsibility (EPR^{*7}) system has been implemented amid growing environmental awareness. NM2 is a Vietnam-based EPR-certified recycling company that melts various aluminum scraps, primarily beverage cans, to produce recycled aluminum ingots. In partnership with NM2, in which it holds an equity stake, Marubeni aims to advance Vietnam's resource circulating economy, ensure a stable medium- to long-term supply of recycled aluminum ingots with low carbon footprint, and contribute to a sustainable society.

*7 Businesses that manufacture and/or import items specified by law in Vietnam are obligated to recycle the products and packaging in question at or above a specified rate.

【Related Information】

- Cirba Solutions, LLC: Marubeni Closes an Investment in Cirba Solutions, LLC: Participating in the Lithium-ion Battery Recycling Business
- Altium Metals Ltd.: Marubeni Completes an Investment in Altium Metals Ltd., a UK Company Developing a Lithium-ion Battery Recycling Business
- Nguyen Minh 2 Trading-Services-Environment Joint Stock Company: Participation in the Aluminum Recycling Business in Vietnam



Altium Metals Ltd. (U.K.)



Nguyen Minh 2 Trading-Services-Environment Joint Stock Company (Vietnam)

Governance

Our governance structure ensures adequate Board supervision of important sustainability-related issues for the Marubeni Group, which are deliberated and decided by the Corporate Management Committee and the Board of Directors. In the individuals' qualitative evaluation in the compensation system for directors, we consider contributions to the plans and efforts related to sustainability measures. We have put into place a framework to enhance linkage with director compensation to medium- to long-term corporate value.

The Sustainability Management Committee, which reports directly to the President, holds discussions about a broad range of matters related to sustainability. Specifically, the Sustainability Management Committee leads the formulation of strategy, evaluation of progress and revision and monitoring of metrics and targets relating to sustainability, including climate change, water management, pollution prevention, sustainable forestry, biodiversity, circular economy, occupational health and safety, respect for human rights, contribution to local communities, supply chain management and responsibility to customers. In the fiscal year ended March 31, 2025, the Sustainability Management Committee was held twice and discussed the Mid-Term Management Strategy (GC2024 and the Green Strategy), TCFD disclosures and TNFD disclosures.

The committee deliberates and reports regularly (at least once a year) on these matters to the Board of Directors. The Board of Directors, by receiving periodic reports on important matters related to the sustainability initiatives discussed by the Committee, supervises sustainability-related matters.

The Sustainability Management Committee is chaired by the Chief Sustainable Development Officer, who is Managing Executive Officer, CSO. Outside advisor is also a member of the committee in an advisory role to support the management and supervision of sustainability-related matters from an independent external perspective.

Sustainability Management Organization



Risk Management

The Marubeni Group manages and monitors high-priority risks and opportunities from the perspective of sustainability—including aspects related to climate change, natural capital, circular economy and supply chain management—through the Sustainability Management Committee.

We have developed an assessment framework to support the multifaceted analysis of 27 items across the three risk categories (environmental, health and safety, and social). In addition, we assess the importance and impact of potential risks in each assessment category. We use this risk assessment approach in sustainability survey methods within the Group and for our suppliers, as a part of the process used to make any investment and financing decisions. Besides monitoring existing businesses, we use this approach to gauge the value of Group businesses on an ongoing basis from a sustainability perspective.

Risk Assessment Items in Business (27 Items Across 3 Categories)

Environmental	Climate change / Environmental pollution / Biodiversity / Resource management / Mitigation measures and administrative procedures (environmental)
Health & Safety	Machine safety / Fires and explosions / Toxic substance exposure / Infection / Hazardous operations / Mitigation measures and administrative procedures (health & safety)
Social	Forced labor and human trafficking / Child labor / Working hours / Wages and employment contracts / Discrimination / Harassment at work and disciplinary measures / Respect for diversity / Freedom of association and the right to collective bargaining / Land issues / Negative social impact on local communities / Indigenous peoples and cultural heritage / Conflict minerals / Privacy / Animal welfare / Responsible marketing / Mitigation measures and administrative procedures (social)

Environment

Sustainable Forestry

| Policy ▼ | Initiatives ▼ |

Policy

Forest Management Policy

1. Introduction

Marubeni Group (hereinafter the “Company”) promotes sustainable forest management by conducting fair and upright corporate activities in accordance with the spirit of the Company Creed of “Fairness, Innovation and Harmony”. We recognize that forests are renewable resources that provide various benefits for sustaining life on earth, and embrace economically viable forest management methods with the aim of ensuring the prosperity of present and future generations.

We strive to contribute to the establishment of a circular economy by creating innovation in the utilization of forest resources and responding to the society's environmental needs that are becoming more diverse.

The Forest Management Policy (hereinafter the “Policy”) drives our commitments to sustainable forest management, the protection of forests with high conservation value (HCV^{*1}) and the elimination of unregulated forest logging in our business activities. We, through our focus on on-site operations, are able to create economic benefits and contribute to society by conducting sustainable forest management through coexistence and co-prosperity with local communities, as well as supplying environmentally conscious wood resources that respond to society's needs.

2. Scope of Application

The Policy applies to all woodchip and pulp manufacturing and forest plantation operations by Marubeni and its subsidiaries worldwide.

3. Commitments

We go beyond compliance in our commitments to sustainable forest management. Through this Policy, we reaffirm our commitment to comply with all applicable laws and regulations relevant to forestry operations and seek to extend this obligation to our contractors and their employees.

(1) Natural Capital

In implementing sustainable forest management, we commit to the following guidelines on the principle of No Deforestation:

- Only handling wood resources managed in a sustainable and appropriate way.
- No conversion of natural forests in forest plantation developments.
- Proactively addressing protection of HCV forests in our forest management from the viewpoint of biodiversity conservation.
- No forest plantation operations in HCV forests or on peatland.
- Committing to a “No Burn Policy” that restricts the use of fire in forest plantation operations that can potentially cause forest fires in tropical forest areas.
- Minimizing the impact of logging and related logging access roads construction on ecosystems.

- Proactively addressing the protection of species at risk of extinction included in IUCN's (International Union for Conservation of Nature and Natural Resources) Red List of Threatened Species.
- Restricting the usage of alien species only to cases where impact is manageable.
- Following international best practices for soil management.
- Not using any pesticides classified as Class 1A/1B in the classification scheme of the WHO (World Health Organization), or any substances regulated by the Rotterdam Convention and the Stockholm Convention as pesticides.
- Not using genetic modification technology in forest management.
- Effective utilization of trees damaged by natural disasters such as burned trees, fallen trees, drift wood etc.

(2) Social Capital

We commit to the social and economic development of the areas where we operate and seek to identify opportunities to create shared values with local communities. We recognize the importance of land use rights for local communities and indigenous people and their right to enjoy a fair share of the benefits obtainable from the commercial use of forest resources. Marubeni Group follows the principles regarding human rights described in the Basic Policy on Human Rights, and conducts the following activities as a responsible party:

- Committing to provide a safe and productive work environment, and not tolerating any form for child labor, forced labor, discrimination, harassment or abuse.
- Following the principle of Free, Prior and Informed Consent (FPIC) when starting new forestry operations on the lands where indigenous and local communities hold legal or customary rights.
- Establishing grievance and conflict resolution mechanisms compliant with international standards and the regulatory requirements of the host countries of our forestry operations, as well as engaging in good-faith dialogue with stakeholders to resolve any issues.
- Actively carrying out stakeholder engagement on local, national and international scales.
- Respecting the rights of every worker.

We are contributing to economic and social development of areas where we operate through the following initiatives:

- Creating employment opportunities for local residents (priority allocation of contracts for forest plantation related work)
- Joint programs with local residents (Joint Forestry, Agriculture and Forest Products Harvesting Programs, etc.)
- Support activities for local residents (support for indigenous people, vocational training, disaster prevention drills, voluntary provision of daily necessities, etc.)
- Educational support (scholarships, construction or renovation and extension of schools, dispatching of teachers, operational support, etc.)
- Other community support (support for infrastructure equipment repair, sports events, etc.)

(3) International Standards

We promote the main principles outlined in international standards relevant to the forestry industry (forest plantations, woodchips and pulp manufacturing) in our own operations as part of our commitment to sustainable forest management.

(4) Environmental and Social Risk Assessment

We conduct the necessary environmental and social risk assessment prior to the completion of land acquisitions or land developments for new operations.

4. Governance

(1) Implementation

The Policy is approved by Marubeni's Board of Directors. Oversight of the Policy is by the Chairperson of Sustainability Management Committee with implementation by the Business Division.

(2) Links to Other Policies

The Policy complements other sustainability related policies of the Company including the Basic Policy on Human Rights and Basic Supply Chain Sustainability Policy.

(3) Policy Management

We will review the Policy at least once a year, or as new information and knowledge becomes available, in ways that are consistent with our objectives of sustainable forest management.

(4) Certification Audit and Monitoring

We hold international certification for sustainable forest management and CoC (Chain of Custody) certification to manage distribution and processing. As a result, accredited bodies conduct regular auditing and monitoring of these certifications.

(5) Information Disclosure

In addition to increasing the transparency of our business activities, we are committed to disclose information on our approach to sustainable forest management on the Company website etc.

*1 HCV forests are forests that have a High Conservation Value in social, cultural and or environmental terms.

Procurement Policy (Forest-derived Products)

1. Introduction

The Marubeni Group (hereinafter referred to as “we”) conducts fair and upright corporate activities in accordance with the spirit of its Company Creed of “Fairness, Innovation and Harmony” and strives to build a sustainable society together with its business partners in line with the “Basic Supply Chain Sustainability Policy.”

We have established the Product Procurement Policy (Forest-derived Products) (hereinafter referred to as the “Policy”) to promote the procurement of timber and related products produced from appropriately managed forests, thereby realizing the sustainable use of forest resources.

This Policy has been approved by Marubeni’s Board of Directors. The Chairperson of the Sustainability Management Committee oversees the Policy, and the Business Division is in charge of its effective implementation. We undertake to review this Policy at least annually and revise it as necessary.

2. Scope

This Policy applies to the trading of timber and related products by Marubeni and its subsidiaries worldwide. Specifically, it covers logs, woodchips (including fuel woodchips), wood pellets, pulp, paper and paperboard products (hereinafter referred to as “procured products”).

3. Commitment

In cooperation with suppliers and customers, we are committed to ensuring the traceability of procured products while conducting our procurement activities in accordance with the Basic Supply Chain Sustainability Policy and the following principles.

- (1) No handling of procured products produced from illegally logged timber.
- (2) No handling of products procured from suppliers involved in serious environmental and social controversies, such as the destruction of forests with high conservation value.
- (3) No handling of procured products produced from genetically modified wood.
- (4) Promoting the handling of procured products that have been certified under a reliable international forest certification system.

In order to promote this Policy, we will investigate the environmental and social considerations of suppliers as well as their compliance with laws and regulations. In the event that any non-compliance with this Policy is discovered, consultations and requests for improvement measures will be made. If the non-compliant supplier does not improve, we will review our business relationship with the relevant supplier.

We will regularly disclose information on this Policy. We are committed to promoting to society the sustainable use of forest resources through appropriate communication with our suppliers and customers and other stakeholders.

Performance Data of Forest Certification Acquisition

The Marubeni Group has been promoting the use of certified materials in consideration of sustainability. We will continue our efforts to increase the percentage of certified products that we handle.

Ratio of certified forest products and timber approved as a management material by a certification body to consolidated net sales of forest products in the Lifestyle Division

Item	FYE 3/2021	FYE 3/2022	FYE 3/2023	FYE 3/2024	FYE 3/2025
Ratio of FSC* ¹ or PEFC* ² certified timber and timber approved as a management material by a certification body	52%	50%	54%	56%	53%

*1 FSC® (Forest Stewardship Council®) (FSC® C016260): An NPO established to promote responsible forestry around the world and operates systems of international forest certification.

*2 PEFC (The Programme for the Endorsement of Forest Certification) (PEFC/31-32-80): An international forest certification system, which endorses mutual recognition of forest certification systems of various countries.

Initiatives

Forest Management and Forestry Certification at Marubeni Group

The Marubeni Group currently owns forest plantation businesses in the two countries of Indonesia and Australia with a total of approximately 120,000 hectares of tree plantable land (the total work area is approximately 300,000 hectares). Using a controlled cycle of planting, cultivation and management and harvesting focused on eucalyptus hardwoods that mature quickly in 6-10 years, we provide a stable and sustainable supply of wood resources for pulp and paper production. Based on the principle of No Deforestation, our sustainable forestry management practices prioritize natural and social capital by not harvesting natural forests. We also undertake proactive programs jointly with local communities.



Forest plantation business in Indonesia (MHP)

Group company	Location	Nature of business	Forestry certification
PT. Musi Hutan Persada (MHP)	Indonesia	Forest plantation business	Indonesian Forestry Certification Cooperation*¹ • Sustainable Forest Management certification
WA Plantation Resources Pty., Ltd. (WAPRES)	Australia	Forest plantation/ woodchips production business	FSC® certification*³ • FM (Forest Management) certification • CoC (Chain of Custody, processing/distribution processes) certification
			Responsible Wood*⁴ • Sustainable Forest Management certification

The Marubeni Group's Forest management is operated in accordance with standards established by forest certification systems. In MHP, which operates the forest plantation business in Indonesia, wood harvested from the plantation managed by MHP is supplied as 100% certified wood as of March 31, 2023.

The Marubeni Group will continue to manage the supply chain for manufacturing pulp and paper in a sustainable manner^{*5}.

*1 Indonesian Forestry Certification Cooperation is a forest certification system in Indonesia endorsed and mutually recognized under the PEFC^{*2}.

*2 The Programme for the Endorsement of Forest Certification (PEFC) is an international system for forest certification that is based on a framework for mutual recognition of national forestry certification schemes.

*3 The Forest Stewardship Council® (FSC®) is a non-profit organization that operates an international forest certification scheme with the aim of promoting the worldwide adoption of responsible forest management practices. (FSC® C016260)

*4 Responsible Wood is an Australian forest certification scheme endorsed and mutually recognized under the PEFC^{*2}.

*5 The Marubeni Group has businesses that span the pulp and paper supply chain.

(Consolidated subsidiaries)

Group company	Location	Nature of business
PT. Tanjungenim Lestari Pulp and Paper (TEL)	Indonesia	Production and sale of wood pulp
Koa Kogyo Co., Ltd.	Japan	Manufacturing and sales of containerboard and printing paper
Fukuyama Paper Co., Ltd.	Japan	Manufacturing and sales of corrugating medium and paper tubes
Kraft of Asia Paperboard & Packaging Co., Ltd	Vietnam	Manufacturing and sales of containerboard
Marubeni Forest LinX Co., Ltd.	Japan	Paper, chemical products, and paper products wholesale business

(As of April 2025)

Initiatives toward Forest-derived Products

Due Diligence

To ensure the procurement of products in accordance with the Procurement Policy (Forest-derived Products), Marubeni conducts due diligence (hereinafter "DD") on the suppliers' status of compliance with laws, respect for human rights, preservation of the environment, fair trade, health and safety, etc. Results of the DD in FYE 3/2025 showed that of the 607 suppliers of timber and related products, the 77 major suppliers (with an annual turnover of 500 million yen or more) exhibited no significant problems within the scope of the DD. This survey covered 90% of Marubeni's annual turnover of forest-derived products. We have been gradually expanding the scope of DD since FYE 3/2020, and from FYE 3/2024, we conduct DD of high-impact suppliers, regardless of whether or not they have been investigated in the past.

Our Target and Aim

Through the due diligence on suppliers of forest-derived products, the Marubeni Group will consider the protection of natural forests and the sustainable use of forest resources and will promote initiatives aimed at ensuring that new and existing suppliers are aware of and comply with the Group's Procurement Policy (Forest-derived Products) and that traceability of procured products is ensured.

Overview of the FYE 3/2025 Survey

■ Scope of Application

Based on our Procurement Policy (Forest-derived Products), the survey covered the timber and related products handled by the Group.

■ Selection of Applicable Suppliers and Implementation Method

A 3-step process has been set up in consideration of the impact on Marubeni's business and sustainability-related risks.

① First stage of DD: Internal preliminary survey

We first selected the 77 major suppliers (with an annual turnover of 500 million yen or more) out of our 607 suppliers of timber and related products. Of these 77 suppliers, 13 companies were identified as subjects for the second stage of DD. These 13 companies handle products other than certified wood from an entity which has acquired forest certification (FSC^{*1} certification, PEFC^{*2} certification, and certified wood under a mutual certification agreement with PEFC) and controlled wood based on a forest certification system (FSC controlled wood^{*3}, PEFC controlled sources^{*4}, and controlled wood based on a certification system under a mutual certification agreement with PEFC).

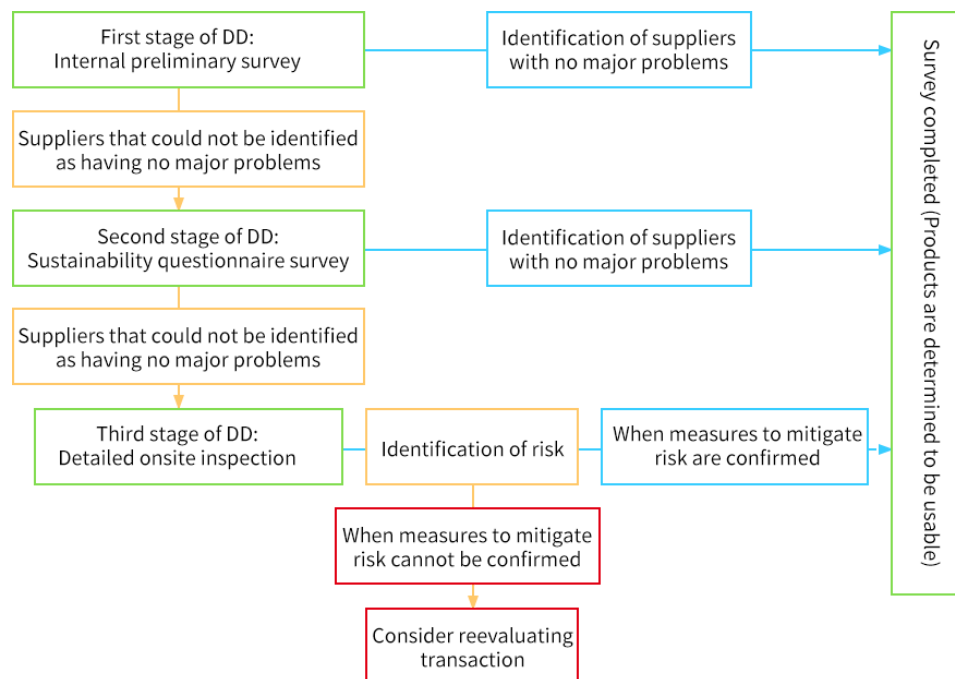
② Second stage of DD: Sustainability questionnaire survey

Sustainability questionnaire survey was conducted on the 13 companies identified in the first stage of DD. As a result, no significant problems were confirmed with these 13 companies.

FYE 3/2020 to FYE 3/2025, a cumulative total of 72 companies were identified as the subjects for the sustainability questionnaire survey.

③ Third stage of DD: Detailed onsite inspection

Suppliers whose status of compliance with laws, respect for human rights, preservation of the environment, fair trade, health and safety, etc. could not be sufficiently confirmed are subject to a detailed onsite inspection. If these suppliers do not undertake measures to mitigate the risks identified in the survey, Marubeni would consider reevaluating these transactions. In FYE 3/2025, no suppliers were identified as requiring the third stage of DD.



*1 Certification by the FSC® (Forest Stewardship Council®) (FSC® C016260): An NPO established to promote responsible forestry around the world and operates systems of international forest certification.

*2 Certification by PEFC (The Programme for the Endorsement of Forest Certification): An international forest certification system, which endorses mutual recognition of forest certification systems of various countries.

*3 FSC controlled wood: While not FSC certified wood, FSC controlled wood is timber, which may be combined with FSC certified wood to manufacture FSC certified wood. Compliance of FSC controlled wood must be confirmed based on the criteria for FSC controlled wood.

*4 PEFC controlled sources: While not PEFC certified wood, PEFC controlled sources are timber, which may be combined with PEFC certified wood to manufacture FSC certified wood. Compliance of PEFC controlled sources must be confirmed based on the criteria for PEFC controlled sources.

Initiatives for Reducing Environmental Impact

Koa Kogyo's Initiatives

As a resource conservation measure, Marubeni's consolidated subsidiary Koa Kogyo Co., Ltd. is working to reduce the amount of water resources it uses in the production process.

Since large quantities of water are needed in papermaking operations, Koa Kogyo secures the necessary water from both industrial and well water sources and recycles water in the manufacturing process. In wastewater, strict water quality standards are met by using activated sludge tanks to reduce chemical oxygen demand (COD) and biochemical oxygen demand (BOD) and by purifying water.

Koa Kogyo is also working to reduce waste volume. By pulping wastepaper using a high-consistency pulper, Koa Kogyo can recycle paper that was previously incinerated because it could not be processed. Furthermore, all combustible garbage is disposed of utilizing high-temperature incinerators, and the thermal energy is recovered and used for thermal recycling. Because it processes waste at high temperatures of 900–1,000°C, this incinerator emits virtually no toxic dioxins and meets environmental standards for NOx, SOx and CO₂ emissions.

In addition, Koa Kogyo collects wastepaper and office waste to be recycled and reused as paperboard. By doing so, the company has established a closed recycling system with customers and is reducing the burden on the environment.

➤ [Click here to view Koa Kogyo's environmental initiatives \(Japanese only\)](#) 

Initiatives to Expand the Volume of Carbon Stocks and Create Negative Emissions in Forestry Business

Conclusion of a Strategic Partnership Agreement for an Afforestation Project in Indonesia, Nippon Paper Industries Co., Ltd. and Our Plantation Company, PT. MHP

In March 2022, Marubeni Corporation and Nippon Paper Industries Co., Ltd. signed a strategic partnership agreement aimed at increasing forest growing stock through Nippon Paper Industries' technical guidance to PT. MHP, an Indonesian plantation company wholly owned by Marubeni Corporation.

Under the terms of the agreement, Marubeni will accept support and guidance on Nippon Paper Industries' proprietary afforestation technologies, including genetic analysis technology and breeding/propagation technology in order to improve forest stock per unit area in PT. MHP.

➤ [Click here to view more details on our initiatives](#)  [648KB]

Indonesia/PT. TEL Decarbonization Project

Marubeni signed a memorandum of understanding (MOU) in February 2022 with PT. Pertamina (Persero), an Indonesian state-owned oil company, for the joint development of decarbonization projects in Indonesia.

Through this MOU, we will work on the joint development of a wide range of decarbonization projects, including a biomass-derived carbon dioxide capture and storage business generated by PT. TEL, our pulp manufacturing and sales company in Indonesia, the so-called Bioenergy with Carbon Capture and Storage, or 'BECCS', project, the creation of carbon credits, and the utilization of biomass resources.

➤ [Click here to view more details on our initiatives](#)

Consideration of Forest Management and Afforestation Projects Aiming for Carbon Dioxide Sequestration and Corporate Support Initiatives for Decarbonization

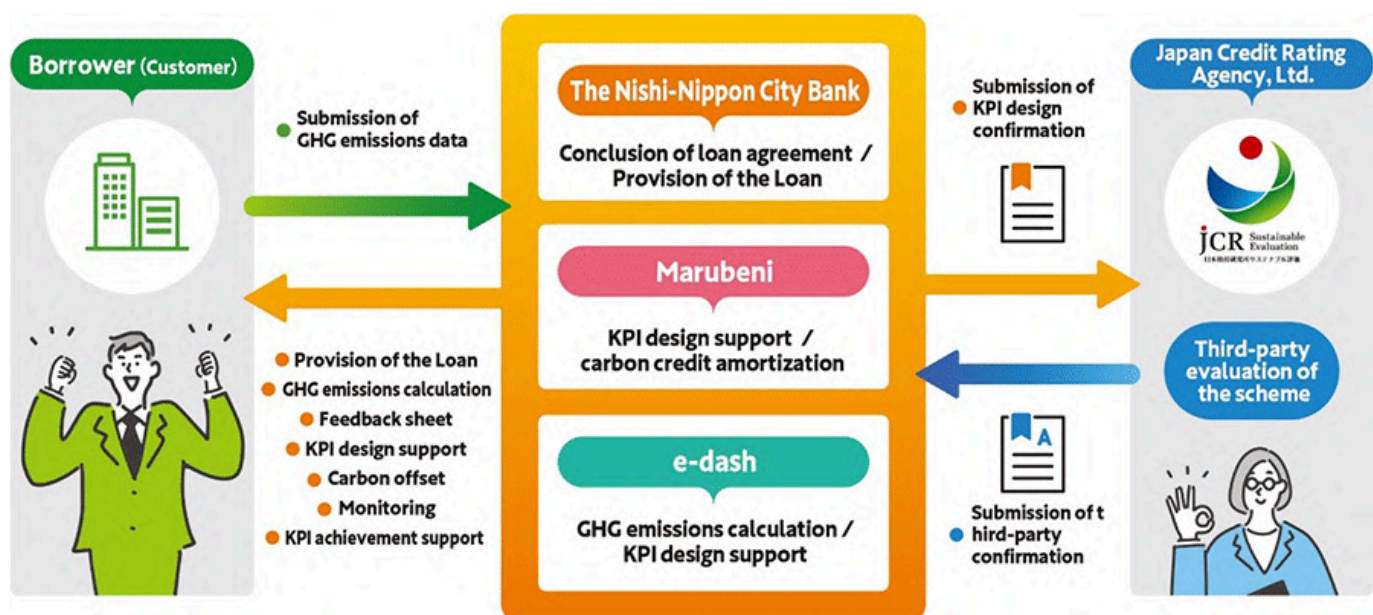
With an eye on the development, dissemination, and market expansion of forest-derived carbon credit programs, we consider industrial and environmentally-conscious afforestation projects through reforestation. In Japan and the Philippines, we are working to establish carbon credit programs through carbon dioxide sequestration.

- [Click here to view initiatives in the Philippines](#)
- [Click here to view initiatives in Japan \(Noshiro City, Akita Prefecture\)](#)
- [Click here to view initiatives in Japan \(Daisen City, Akita Prefecture\)](#)
- [Click here to view initiatives in Japan \(Tanabe City, Wakayama Prefecture\)](#)

Joint Development of “Forestrike,” Decarbonization Impact Finance

The Nishi-Nippon City Bank, Ltd. (NCB), Marubeni and e-dash Co., Ltd. together announce the development of “Forestrike,” an impact finance^{*1} loan product for the realization of a carbon-neutral society, as well as its launch at NCB.

The Japanese government’s 2050 Carbon Neutrality Declaration and other initiatives have increased corporate interest in decarbonization. In order to meet the needs of such companies, the three companies have collaborated to develop this product as a decarbonization that includes visualization of GHG emissions, support for KPI design and achievement, and voluntary carbon offsetting^{*2}.



Schematic outline of “Forestrike”

This is the first time in Japan that a general trading company, a financial institution, and a start-up company have jointly developed a loan product to support corporate decarbonization efforts. Through this product, the three companies will continue to support companies working to decarbonize their businesses.

*1 Impact finance is a type of financing which is intended to produce positive environmental, social, and economic impacts while ensuring an appropriate risk-return profile.

*2 Carbon offsetting in Japan is an initiative in which members of society recognize their own greenhouse gas emissions and voluntarily make efforts to reduce them, while at the same time compensating for emissions that are difficult to reduce, in whole or in part, by purchasing credits for greenhouse gas emission reductions or absorption achieved elsewhere, or by implementing projects or activities that reduce or absorb emissions elsewhere. The carbon offset service for this product is a voluntary carbon offset scheme and is not applied to the Act on Promotion of Global Warming Countermeasures, the Act on Rationalizing Energy Use and Shifting to Non-fossil Energy, or other regulations.

Environment

Water Management

[Policy](#) ▾ | [Initiatives](#) ▾ |

Policy

Recognition of Water Resources

The earth's water resources are said to be about 97.5% seawater, with only 2.5% fresh water. And about 99% of that fresh water is contained in ice in places like the Antarctic, so there is very little fresh water available for direct use.

Through its businesses across the world, Marubeni recognizes that developed countries are able to fully enjoy these finite water resources, while other countries do not even have adequate wells, and this regional imbalance is a major problem. Future water shortages are also anticipated, accompanying increases in world population and economic growth in the developing countries. The effective use of water resources is a global issue, and the international society is starting to take actions.

➤ [Click here to view the Water Action Decade](#) 

Water Resources Policy

Based on the Marubeni Group Environmental Policy, the Marubeni Group recognizes that energy and resources, including water, are finite, and take measures to ensure their effective and efficient use.

In the Marubeni Group Environmental Policy, we clearly state our commitment to using energy and resources, including water, efficiently. By reducing water usage through promotion of efficient use and recycling of water, and by providing stable supplies of water resources through effective water and sewerage operation and power and desalination projects, we will continue to contribute to the environment and communities and to resolving water-related social issues.

➤ [Click here to view Marubeni Group Environmental Policy](#)

Initiatives

Formulation of the Marubeni Group's Water Management Plan

As of March 31, 2025, 33 (15%) of the 221 Marubeni Group companies had established water management plans. (Of the 2,774 operation sites covered by the Sustainability Survey, 297 operation sites that account for 11%, had established water management plans.) These companies monitor and manage the amount of water withdrawal, wastewater, and recycled water, as well as quality and temperature of wastewater, and take measures to use water resources effectively and reduce their environmental impact.

Koa Kogyo Co., Ltd., for example, uses water efficiently in production processes, and sets and manages standards for the amount of fresh water used in each department, as part of its efforts to conserve resources.

Since large quantities of water are needed in papermaking operations, Koa Kogyo secures the necessary water from both industrial and well water sources and recycles water in the manufacturing process. In wastewater, strict water quality standards are met by using activated sludge tanks to reduce chemical oxygen demand (COD) and biochemical oxygen demand (BOD) and by purifying water.

➤ [Click here to view Koa Kogyo's initiatives \(Japanese only\)](#) 

Initiatives in Water-Stressed Regions

The Marubeni Group owns and operates three IWPP*¹ projects and one IWP*² project in Middle East. In total, 489 million imperial gallons of desalination water per day are produced by those desalination plants, helping to reduce stress on the region's water resources.

For example, the Taweelah B power and desalination complex, located 80 kilometers northeast of Abu Dhabi, which we built and operate, has generation capacity of 2,000 megawatts of electricity and 160 million imperial gallons of water per day. To meet increased water demand resulting from economic development and population growth, the Marubeni Group is selling electricity and water for 20-25 years to the state-owned utility, Emirates Water & Electricity Company. Water from the plant is used for tap water (household and commercial), agriculture, industry and other applications, and helps to relieve stress on water resources. (To prevent exacerbation of the region's water stress, machinery cooling water and other water used in the Marubeni Group's business operations is produced at the desalination plant.)



Taweelah B Power & Desalination Complex

IWPP Projects and IWP Project in Middle East (as of March 31, 2025)

Project	Gross Desalination Capacity (Million imperial gallons per day)
Taweelah B	160
Fujairah F2	130
Shuweihat S2	100
Shuqaiq 3	99

*1 IWPP: Independent Water and Power Producer

*2 IWP: Independent Water Producer

Working with External Partners to Reduce Water Use

Desalination and Water Transmission Project in Chile

Through a special purpose company established together with Transelec Holdings Rentas Limitada, a major power transmission company in the Republic of Chile, we are participating in a desalination and water transmission project for Corporación Nacional del Cobre de Chile (CODELCO) (the Project).

➤ [Click here to view Conclusion of a Loan Agreement and Start of Construction under a Long-Term Water Sale Agreement for a Desalination and Water Transmission Project for the National Copper Corporation of Chile](#)

The Project is the first large-scale seawater desalination and water transmission project in Chile using reverse osmosis (RO) membranes^{*3}. The Project will construct a desalination plant in western Chile to pump seawater from the Pacific Ocean and supply water needed for copper mining and other operations, thereby contributing to reducing water withdrawal from water-stressed areas where water shortages are a concern.

^{*3} Desalination method in which water containing salts and other substances is permeated through RO membranes using the phenomenon of osmotic pressure.

Although at present CODELCO is still reliant on groundwater and other inland water sources for the water used in its copper mining and refining processes, it has set a goal of reducing its consumption of inland water by 60% by 2030 in order to protect the environment, secure water resources for local residents, and ensure sustainable growth. This Project will contribute to this goal. Marubeni, by leveraging its past experience in construction, maintenance, and operation of seawater desalination plants, will contribute to reducing water consumption by working with CODELCO on this Project.

Initiatives in Municipal Water / Wastewater Treatment

Through its concession businesses^{*4} and the BOO^{*5} project, the Marubeni Group contributes to the supply of safe drinking water and reduces burdens on the environment through effective wastewater treatment.

The concession businesses and BOO project we operate in Chile, Brazil, the Philippines, Portugal and Peru have a total water purification capacity of 4.2 million cubic meters per day and wastewater treatment capacity of 1.9 million cubic meters per day, and cover a service population totaling approximately 16.6 million people.

^{*4} Concession business: Investment into and operation of a private company which has been given the right to conduct water services by a municipality

^{*5} BOO: Build Own and Operate water processing plant

Concession Business in the Philippines

One example of the Marubeni Group's concession businesses is our investment in and personnel dispatch to Maynilad Water Services, Inc. (Maynilad), a water and sewerage company serving the West Zone of Metro Manila in the Philippines, which has a population of 10.5 million people.

Amid the region's ongoing urban expansion and increased congestion, Maynilad is expanding its water distribution network to increase the coverage of water supply services. In addition, it continues to provide a stable water supply to some 1.5 million customers in the concession area by promoting more efficient use of water resources with measures to prevent water pipe leakage and improve water pressure. At the same time, as a medium-to-long-term goal, it is working to raise the currently low percentage of the population connected to the sewage system, to improve the sanitary environment both in normal times and during flooding, and to improve the water quality of the region's water system and Manila Bay, through development of sewage treatment facilities and the sewerage network in its service area.



Maynilad Water purification plant



Water supply in Maynilad

At Maynilad, the effects of operational shutdown caused by physical damage etc. to the facility due to disasters or extreme weather is quantified. Specifically, several of Maynilad's important business locations such as the purification plant, pumping station, and water distribution network are chosen as samples, and the economic impact of operational shutdown is calculated by period, to be used for developing the business continuity plan.

Outline of Maynilad's Business (as of March 31, 2025)

Treatment Facilities	Treatment Capacity
Water purification plant	2,873 thousand m ³ /day
Sewage treatment plant	744 thousand m ³ /day
Septic sludge treatment plant	1,190 t/day

➤ [Click here to view Maynilad's initiatives](#) 

Wastewater Treatment in Qatar

Marubeni has participated from the construction stage at the Doha West, Doha North, and Lusail Sewage Treatment Plants, which are the major sewage treatment plants in Doha, the capital of Qatar with approximately 3.0 million people. At the Doha West and Lusail Plants Marubeni had conducted the operation and maintenance for approx. 10 years after the construction. The greywater (treated water made by sterilizing sewage water, for industrial and consumer use) which is generated during the sewage treatment process is delivered daily to roadside vegetation, parks, and farms across Doha through the recycled water pipe network. It plays an important role by supporting the social infrastructure in Doha, the land of desert, and Marubeni engaged in a sustainable contribution activity in regions with insufficient water supplies through recycling of the valuable water resources.

Sewage Treatment Plant	Sewage Treatment Plant Capacity
Doha West sewage treatment plant	340 thousand m ³ /day
Doha North sewage treatment plant	439 thousand m ³ /day
Lusail sewage treatment plant	60 thousand m ³ /day



Doha West sewage treatment plant



Lusail sewage treatment plant



Lusail sewage treatment plant

Environment

Environmental Data

Climate Change

Water Management

Environmental Management

Climate Change

Greenhouse Gas Emissions

<Click here to view greenhouse gas emissions metrics and targets>

<Scope 1 & 2 Greenhouse Gas Emissions>

(Unit: t-CO2e)

	FYE 3/2021	FYE 3/2022	FYE 3/2023	FYE 3/2024	FYE 3/2025
Scope 1	797,975	1,016,487	1,000,124	948,825	939,015
Scope 2 Market-based emissions	282,171	222,559	221,821	254,928	214,727
Total	1,080,146	1,239,046	1,221,946	1,203,753	1,153,741
(reference) Scope 2 Location-based emissions	-	-	-	-	283,369

- The figures cover Marubeni Corporation and consolidated subsidiaries.
- CO2 emission factors for electricity (market-based emissions)
For domestic, until FYE 3/2024, the adjusted emission factors are used. From FYE 3/2025, the basic emission factors (revised in March 2025 and adjusted for non-fossil power sources) are used. For overseas, country-specific emission factors (CO2 emissions per kWh from electricity generation) published by the International Energy Agency (IEA) are used. A zero-emission factor is applied to purchased electricity derived from renewable energy.
- CO2 emission factors for electricity (Location-based emissions)
Country-specific emission factors (CO2 emissions per kWh from electricity generation) published by the IEA are used.
- Emission factors other than electricity
Until FYE 3/2024, emission factors stipulated by the Act on Promotion of Global Warming Countermeasures (version before April 2024 enforcement) are used. From FYE 3/2025, emission factors stipulated by the Act on Promotion of Global Warming Countermeasures (version after April 2024 enforcement) are used.
- Global warming potential (GWP) values used to calculate GHG emissions
Until FYE 3/2024, GWP100 in the Intergovernmental Panel on Climate Change (IPCC), Fourth Assessment Report (AR4) are used. From FYE 3/2025, GWP100 in the IPCC Fifth Assessment Report (AR5) are used.
- GHG emissions quantification is subject to uncertainty when measuring activity data, determining emission factors, and considering scientific uncertainty inherent in the Global Warming Potentials.

〈Scope 1 Emissions Breakdown〉

(Unit: t-CO₂e)

		FYE 3/2021	FYE 3/2022	FYE 3/2023	FYE 3/2024	FYE 3/2025
Energy-derived CO ₂		683,025	896,877	849,910	790,865	803,839
GHG emissions other than energy-derived CO ₂		114,950	119,610	150,214	157,960	135,175
Breakdown	Carbon dioxide (CO ₂)	5,203	9,500	31,740	31,192	37,857
	Methane (CH ₄)	72,081	71,658	75,149	76,979	74,072
	Dinitrogen monoxide (N ₂ O)	36,602	38,096	42,612	49,196	22,619
	Hydrofluorocarbons (HFCs)	1,064	355	712	593	627
	Perfluorocarbons (PFCs)	0	0	0	0	0
	Sulphur hexafluoride (SF ₆)	0	0	0	0	0
	Nitrogen trifluoride (NF ₃)	0	0	0	0	0
Total		797,975	1,016,487	1,000,124	948,825	939,015

- CO₂ emissions from the use of waste fuels are included in GHG emissions other than energy-derived CO₂.
- GHG emissions other than energy-derived CO₂ cover the production of limestone, CO₂ from the use of dry ice, CO₂ from waste incineration or use of waste fuels, CH₄ and N₂O, the use of fuel in facilities and machinery used for fuel combustion, CH₄ and N₂O from livestock waste management, CH₄ from livestock feeding (fermentation in the digestive tract of livestock), HFCs in the use, maintenance and disposal of commercial refrigeration and air-conditioning equipment etc., and SF₆ in the use, inspection and disposal of electrical machinery and equipment such as transformers. There are no emissions of PFCs and NF₃. For SF₆, there are no companies obliged to report based on the Act on Promotion of Global Warming Countermeasures.

* The total of each breakdown and the overall total may not match due to rounding.

〈Scope 1 & 2 Emissions Covered by the 2030 Action Plan in the Marubeni Long-Term Vision on Climate Change〉

<Click here  [721KB] the Marubeni Long-Term Vision on Climate Change: Towards Net-Zero GHG Emissions>

(Unit: t-CO₂)

	FYE 3/2020	FYE 3/2022	FYE 3/2023	FYE 3/2024	FYE 3/2025
	Base year	Most recent four years			
Scope 1	773,198	896,877	849,910	790,865	803,839
Scope 2	310,500	222,559	221,821	254,928	214,727
Total	1,083,698	1,119,436	1,071,731	1,045,793	1,018,566

- The figures cover energy-derived CO₂.

〈Scope 3 Greenhouse Gas Emissions〉

Marubeni is voluntarily disclosing a part of the data by categorizing its supply chain activities and calculating the GHG emissions in each category in line with the GHG Protocol guidelines.

(Unit: million t-CO₂e)

Category		FYE 3/2020	FYE 3/2022	FYE 3/2023	FYE 3/2024	FYE 3/2025
		Base year	Most recent four years			
1	Purchased goods and services	-	-	-	36	35
2	Capital goods	-	0.3	0.3	0.4	0.8
3	Fuel- and energy-related activities (not included in Scope 1 or Scope 2)	-	0.2	0.2	4	5
4	Upstream transportation and distribution	-	0.01	0.01	1	2
5	Waste generated in operations	-	0.02	0.1	0.1	0.1
6	Business travel	-	0.01	0.01	0.01	0.01
7	Employee commuting	-	0.01	0.01	0.01	0.01
8	Upstream leased assets	-	Included in Scope 1 and 2	Included in Scope 1 and 2	Included in Scope 1 and 2	Included in Scope 1 and 2
9	Downstream transportation and distribution	-	Included in Category 4	Included in Category 4	Included in Category 4	Included in Category 4
10	Processing of sold products	-	-	-	1	0.5
11	Use of sold products	-	-	-	18	13
12	End-of-life treatment of sold products	-	-	-	3	2
13	Downstream leased assets	-	-	-	0.3	0.3
14	Franchises	-	Not applicable	Not applicable	Not applicable	Not applicable
15	Investments	26	25	22	25	24
Breakdown	Power generation	22	21	19	23	21
	Resource projects	3	2	2	2	2
	Other businesses	1	1	1	1	1
Total		26	25	23	89	82

* The breakdowns of Category 15 and the total value for Category 15 may not match due to rounding.

* The total of each category and the overall total may not match due to rounding.

* The calculation categories: Until FYE 3/2023, the calculation included only Categories 2 to 9 and 15. Starting from FYE 3/2024, Categories 1 and 10 to 13 have been included in the calculation.

Applicable to Categories 1 to 14:

- The boundary of calculation: The calculation includes both Marubeni Corporation and consolidated subsidiaries. For Categories 3 and 4, the boundary has been expanded starting from FYE 3/2024.
- Double counting between companies included in the calculation is excluded when clearly identified.
- In trading, transactions with purchases from or sales to collectors, import/export agents, wholesalers, or intermediaries (i.e., transactions with traders) are excluded when clearly identified.
- Emissions factors: Primarily using the Inventory Database for Environmental Analysis (IDEA) from the National Institute of Advanced Industrial Science and Technology (AIST). Additionally, values from the IEA's country-specific CO₂ emission factors (CO₂ emissions per kWh from electricity generation), the Ministry of the Environment's emission intensity database, and LCA literature for various industries are also used.
- References: Corporate Value Chain (Scope 3) Accounting and Reporting Standard (GHG Protocol), Technical Guidance for Calculating Scope 3 Emissions (GHG Protocol), Estimating Petroleum Industry Value Chain (Scope 3) Greenhouse Gas Emissions (International Petroleum Industry Environmental Conservation Association, IPIECA), The Product Carbon Footprint Guideline for the Chemical Industry (Together for Sustainability), etc.

Category 1: Includes fertilizers, grains, chemicals, and other products.

Category 4: Until FYE 3/2023, the calculation covered only domestic contracted transportation as a consignor for Marubeni Corporation within Japan. Starting from FYE 3/2024, the calculation includes international maritime transportation, both departing from and arriving in Japan, for Marubeni Corporation as well as its consolidated subsidiaries basis within Japan.

Category 10: Sales of intermediate products and raw materials are excluded when the processing stages up to the final product cannot be traced.

Category 11: Includes fossil fuels and other products.

Category 15:

- Category 15 covers Scope 1 and Scope 2 emissions for associate investees of the Marubeni Group accounted for using the equity method, (hereinafter, “associate investees”), which are not included in the Scope 1 and Scope 2 emissions of Marubeni Corporation and its consolidated subsidiaries. The emissions are calculated by multiplying by our equity share. Emissions from businesses designated to be liquidated or sold, renewable energy businesses, and businesses which consist of office operations only are not included.
- Generally, emissions are calculated using the same methods as Scope 1 and Scope 2 for Marubeni Corporation and its consolidated subsidiaries. However, in some cases, emissions reported by associate investees and estimated emissions are included.
- For overseas power generation projects, emission factors from the 2006 IPCC Guidelines for National Greenhouse Gas Inventories are used, including CO₂, CH₄, and N₂O. All emissions from coal are calculated assuming weight on an air-dried basis.

Energy and Electricity Consumption

[<Click here to view Tokyo Head Office's targets to be achieved by FYE 3/2026>](#)

	FYE 3/2021	FYE 3/2022	FYE 3/2023	FYE 3/2024	FYE 3/2025
Energy consumption (Unit: TJ)	13,771	17,515	16,992	16,056	15,906
Electricity consumption purchased externally (Unit: MWh)	703,238	628,392	668,389	731,357	704,353
Percentage of electricity consumption purchased externally from renewable energy sources (Unit: %)	10	23	21	20	22

- The figures cover Marubeni Corporation and consolidated subsidiaries.
- For fuels, until FYE 3/2024, emission factors stipulated by the Act on Promotion of Global Warming Countermeasures (version before April 2024 enforcement) are used. From FYE 3/2025, emission factors stipulated by the Act on Promotion of Global Warming Countermeasures (version after April 2024 enforcement) are used.
- 3.6 GJ/MWh is used for heat value per unit for electricity.
- Biomass energy is not included in energy consumption.
- From FYE 3/2022, Marubeni Corporation's principal offices have been purchasing 100% renewable energy for electricity at domestic offices of Marubeni Corporation.

Environmental Impact of Transport

	FYE 3/2021	FYE 3/2022	FYE 3/2023	FYE 3/2024	FYE 3/2025
Amount transported (Thousand ton-km)	364,538	266,675	220,170	207,757	190,326
CO ₂ emissions from upstream transportation (Scope 3 Category 4) (t-CO ₂)	17,516	13,768	11,787	10,246	8,863
Intensity (kl crude oil equivalent per thousand ton-km)	0.0178	0.0192	0.0199	0.0182	0.0172

- This table shows the impacts associated with the domestic outsourced shipment (upstream transportation) of goods consigned by Marubeni Corporation.

Costs Associated with Climate Change

(Unit: thousands of yen)

Data	Contents	FYE 3/2023	FYE 3/2024	FYE 3/2025
Cost of climate change risk aversion	Emergency power generation and flood countermeasures due to extreme weather conditions	6,255	6,519	6,916
Research and development expenses for climate change risk aversion	Research and development expenses related to forest conservation and reduction of greenhouse gas, etc.	8,127	11,204	9,655

Water Management

Water Withdrawal

<Click here to view Water Management>

<Click here to view Tokyo Head Office's targets to be achieved by FYE 3/2026>

(Unit: thousand m³)

	FYE 3/2021	FYE 3/2022	FYE 3/2023	FYE 3/2024	FYE 3/2025
Marubeni Corporation and Marubeni Corporation's consolidated subsidiaries	298,340	308,498	272,325	276,899	341,170

<Water Withdrawal by Source>

(Unit: thousand m³)

	FYE 3/2021	FYE 3/2022	FYE 3/2023	FYE 3/2024	FYE 3/2025
Surface water from rivers, lakes, natural ponds	281,997	291,171	253,887	257,800	321,617
Underground/wells	10,459	10,510	11,057	11,575	11,585
Used quarry water collected in the quarry	0	0	0	0	0
Municipal potable water	5,073	5,810	6,292	6,539	6,657
External water discharge	237	549	631	160	220
Harvested rainwater	0	0	0	0	0
Seawater, water extracted from the Sea or the Ocean	575	458	458	818	1,090
Produced/Entrained water	0	0	0	6	0
Total	298,340	308,498	272,325	276,899	341,170

- The river water withdrawn by Mibugawa Power Company for hydroelectric power generation business is included in the figure.
- Mibugawa Power Company's business is small and medium-sized hydroelectric power project, mainly using flow-in water (self-flowing water). Click here to view details of the company.
- From FYE 3/2021, raw water withdrawn by companies engaged in water supply and sewerage services, as well as industrial water supply and wastewater treatment as part of their business, is included in the figure of water withdrawn.

* The total of each breakdown and the overall total may not match due to rounding.

Water Withdrawal from Water-Stressed Regions

By referring to Aqueduct tools and databases developed by WRI (World Resources Institute), the Marubeni Group identifies regions of which water stress level is "high" or more ("relevant areas"), and through internal reviews such as Sustainability Survey, we survey the amount of water withdrawal from the relevant areas.

Thirty-one operation sites that have been identified by the Sustainability Survey with aggregated data as of the end of March 2025, operate in the watershed areas of Gulf Coast, Mississippi-Missouri, Rio Grande-Bravo, Saskatchewan-Nelson, Kansas, California, Texas, Minnesota, North Carolina, North Dakota, Iowa in North America, with relatively high water stress. There is a total water withdrawal of 113 thousand m³ in these regions, and we are aware that this is equivalent to less than 0.1% of 134,144 thousand m³, the amount of water withdrawal for the whole Marubeni Group excluding the portion used for hydroelectric power. (Furthermore, we have confirmed that no operation sites face comprehensively high water risk, such as the amount of physical water resources, pollution by wastewater, regulations, or assessment of nearby regions.)

Water Discharge

(Unit: thousand m³)

	FYE 3/2021	FYE 3/2022	FYE 3/2023	FYE 3/2024	FYE 3/2025
Marubeni Corporation and Marubeni Corporation's consolidated subsidiaries	285,693	296,047	260,902	264,383	331,924

〈Water Discharge by Destination〉

(Unit: thousand m³)

	FYE 3/2021	FYE 3/2022	FYE 3/2023	FYE 3/2024	FYE 3/2025
Ocean	11,321	11,416	11,862	12,043	13,087
Surface water	268,138	278,167	243,070	245,928	312,553
Underground/wells	3,838	3,819	3,716	3,729	3,643
Off-site water treatment	1,967	1,911	1,401	2,336	2,315
Others	430	734	852	347	326
Total	285,693	296,047	260,902	264,383	331,924

- The quality of discharged water is appropriately managed based on the laws and regulations of each country and region.
- The river water used by Mibugawa Power Company for hydroelectric power generation business is included in the figures.
- Mibugawa Power Company's business is small and medium-sized hydroelectric power project, mainly using flow-in water (self-flowing water). [Click here to view details of the company.](#)
- From FYE 3/2021, the amount of water discharge includes wastewater from sewage treatment projects.

* The total of each breakdown and the overall total may not match due to rounding.

Water Recycling Rate

(Unit: thousand m³)

	FYE 3/2021	FYE 3/2022	FYE 3/2023	FYE 3/2024	FYE 3/2025
Water withdrawal	81,086	82,641	82,588	81,759	134,144
Recycled amount	42,028	57,270	65,125	58,356	44,432
Recycling Rate	52%	69%	79%	71%	33%

- The scope of the water recycling rate includes Tokyo Head Office, branches and Marubeni Corporation's consolidated subsidiaries.
- The portion used for hydroelectric power are excluded from water withdrawal.

Number of Legal or Regulatory Violations Related to Water Withdrawal and Water Discharge

In FYE 3/2025, there were no legal or regulatory violations related to water withdrawal and water discharge at the major operating companies of the Marubeni Group. In addition, there was one case in FYE 3/2023, and two cases in FYE 3/2024, both of which have been corrected.

Water Consumption Intensity in Processed Food Products

(Unit: ml/ton)

	FYE 3/2023	FYE 3/2024	FYE 3/2025
Iguacu Vietnam Company Limited	286.4	115.9	88.6

* Iguacu Vietnam Company Limited is Marubeni's consolidated subsidiary.

Costs related to Water Management

Costs for water management in FYE 3/2025 are as follows:

- Costs associated with water-related risks: 2,852.87 million yen.

(These include maintenance and repair of water withdrawal and drainage systems and recycling treatment facilities, installation of water-saving equipment, purchase of water discharge treatment chemicals, emergency response training for scenarios assuming the outflow of hazardous substances, and implementation of cleanup activities in the areas surrounding water sources.)

- Investments in R&D to mitigate water-related risks: 19 million yen.

(These are R&D expenses for water risk aversion to maintain water quality, to ensure water quantity and to investigate the surrounding environment.)

Environmental Management

Environmental Management System / Number of Reported Cases and Corrective Actions

We have an established system to report/correct cases related to administrative guidance and non-compliance with laws/ordinances in the operation of the Environment Management System. The measures are taken to prevent recurrence.

Number of Reported Cases and Corrective Actions

	FYE 3/2025
Number of reported cases	4
Number of corrective actions	4 (of which 0 includes fines/penalties)
Total fines	0

Environmental Protection Costs

Environmental Accounting*1

(Unit: thousands of yen)

	FYE 3/2025
Business area cost	5,647
Upstream/Downstream cost	17,306
Administration cost	777,292
R&D cost	-
Social activity cost	34,873
Environmental remediation cost	-
Total	835,119

*1 Based on Environmental Accounting Guidelines 2005 (the Ministry of the Environment), on a non-consolidated basis for Marubeni Corporation.

Waste Generated

<Click here to view Tokyo Head Office's targets to be achieved by FYE 3/2026>

(Unit: metric ton)

	FYE 3/2021	FYE 3/2022	FYE 3/2023	FYE 3/2024	FYE 3/2025
Marubeni Corporation and Marubeni Corporation's consolidated subsidiaries	119,019	174,984	206,726	195,063	189,430

- Figures for waste generated do not include agricultural material sales company based in the southeastern United States.
- From FYE 3/2022, the amount of waste includes the waste generated by a containerboard base paper manufacturing company in Vietnam.
- In FYE 3/2025, the amount of recycling included in the total waste generated by Marubeni Corporation and consolidated subsidiaries is 41,226 metric tons.

Specially Controlled Industrial Waste Output

As a single entity, Marubeni Corporation monitors and reports our output of specially controlled industrial waste defined in the Waste Management and Public Cleansing Act. This includes PCB waste etc., such as PCB contaminant and processed PCB, which we dispose in sequence within the legal disposal period.

Specially Controlled Industrial Waste Output

(Unit: metric ton)

FYE 3/2021	FYE 3/2022	FYE 3/2023	FYE 3/2024	FYE 3/2025
0	0	0	0	0

Our domestic subsidiaries monitor and report the appropriate amount according to the Waste Management and Public Cleansing Act.

Costs for Industrial Waste

(Unit: thousands of yen)

	FYE 3/2021	FYE 3/2022	FYE 3/2023	FYE 3/2024	FYE 3/2025
Tokyo Head Office	1,921	16,480	3,940	5,044	5,335

Target and Results for Serious Environmental Incidents*² including Pollution

(Unit: case)

	Target	FYE 3/2021	FYE 3/2022	FYE 3/2023	FYE 3/2024	FYE 3/2025
Serious Environmental Incidents	0	0	0	0	0	0

*² Includes Marubeni Corporation and its consolidated subsidiaries.

NOx, SOx, VOC Emissions

(Unit: metric ton)

	FYE 3/2022	FYE 3/2023	FYE 3/2024	FYE 3/2025
NOx	1,278	1,398	1,122	1,117
SOx	233	62	32	31
VOC	21	27	33	63

• Data on emissions for the Marubeni Group includes its consolidated subsidiaries.

Recycling Rate

<Click here to view Tokyo Head Office's targets to be achieved by FYE 3/2026>

(Unit: %)

	FYE 3/2021	FYE 3/2022	FYE 3/2023	FYE 3/2024	FYE 3/2025
Recycling Rate of Marubeni Corporation's principal offices	61.7	78.9	74.8	71.6	76.1

【The boundary of the environmental data】

• Marubeni Corporation's principal offices

It covers Tokyo Head Office, Hokkaido Branch, Chubu Branch, Osaka Branch, and Kyushu Branch.

• Domestic offices of Marubeni Corporation

It covers Marubeni Corporation's five principal offices, and Tohoku Branch, Shizuoka Branch, Hamamatsu Branch, Hokuriku Branch, Chugoku Branch, Okinawa Branch.

• Consolidated subsidiaries do not cover the subsidiaries that are designated to be liquidated or sold.

• Some of the aggregated data includes results from January to December.