Environment

Environment

Environmental Management

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 in cooperation with stakeholders to the preservation of the environment and the reduction of potential environmental impacts, including efficient use of resources, prevention of pollution and taking appropriate steps to address climate change and protect biodiversity, focusing on the five 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.
   (5) Addressing climate change, striving to minimize greenhouse gas emissions.
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.

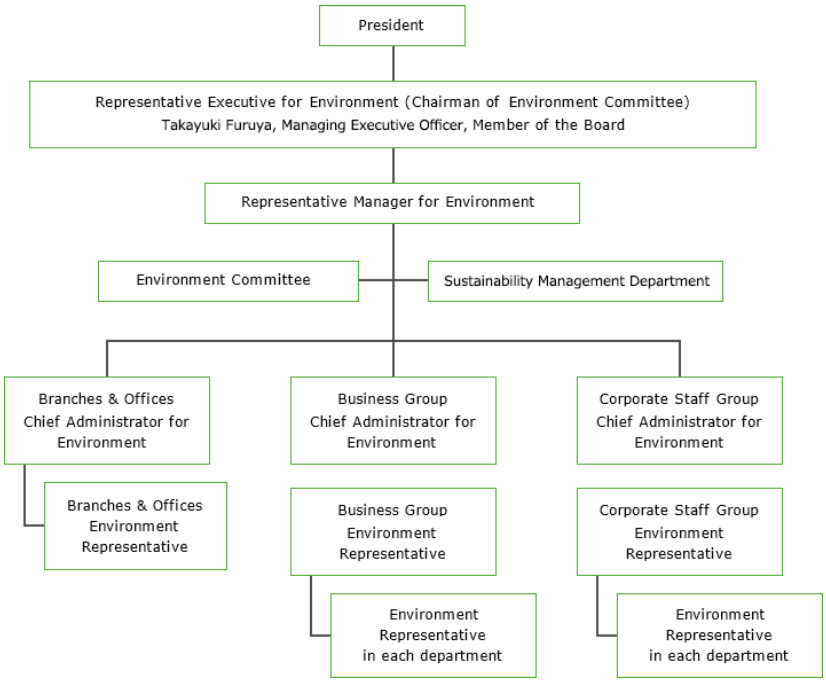
Targets

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 group with regard to 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 group and works towards achieving them.

Structures and Systems

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



Marubeni Group EMS organizations

Environmental Management System (ISO 14001)

Marubeni has introduced an environmental management system (EMS) based on ISO 14001 as a tool to assist all employees in addressing environmental issues based on a common understanding.
As of March 31, 2021, the status of Marubeni Group's acquisition of ISO 14001 environmental management system is as follows:
In the Marubeni Group:

- Number of companies that have acquired ISO 14001 certification (includes Marubeni Corporation)

52 out of 457 companies (11.4% of the total number of Group companies)

- Number of operations that have acquired ISO 14001 certification

208 of 2,639 operations (7.9% of the total number of Group companies)

The Marubeni Group Multi-site Certificated Subsidiaries

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

・Marubeni Corporation
・Yamaboshiya Co., Ltd.
・Marubeni Information Systems Co., Ltd.
・Marubeni Chemix Corporation
・Marubeni Plax Corporation
・Marubeni Paper Recycle Co., Ltd.
・Marubeni Forest LinX Co., Ltd.
・Marubeni Power & Infrastructure Systems Corporation
・Marubeni Service Corporation

* 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 group at Marubeni formulates environmental 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 Lloyd's Register Quality Assurance Limited (LRQA). Marubeni has continuously been certified in the year ended March 31, 2021.

■ Flow of LRQA external audits
ISO 14001 certification expires in three years. We undergo ISO certificate renewal once every three years to confirm that the management system has been maintained within the effective period.

Internal Audits

Internal environmental audits are conducted every year based on ISO 14001. In the year ended March 31, 2021, audits were conducted on all Business Groups, Next Generation Business Development Division, General Affairs Dept., and four Branches (Osaka, Chubu, Hokkaido, Kyushu).
The Sustainability Management Department forms an internal audit team, and personnel who have a qualification of internal auditor verify whether the Company's environmental management system is 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 the year which ended March 31, 2021, Marubeni conducted an assessment to determine whether its 98 departments and 130 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 employees, including temporary employees. At the same time, seminars were held on the same topic at the Tokyo Head Office and major domestic branches (Osaka, Chubu, Hokkaido and Kyushu), where outside experts provided pertinent guidelines and information. 294 Marubeni Group employees in total participated in the training program. Likewise, the corresponding groups conducted more practical and hands-on forms of training.
As a result of these and other initiatives, there were no serious violations of environmental laws or regulations by the Marubeni Group in the year ended March 31, 2021.

Environmental Education and Training

Marubeni provides environmental education to its employees to help raise their awareness of relevant issues. In the year ended March 31, 2021, Marubeni not only distributed materials to relevant personnel under the name of “environmental training,” but also organized a variety of programs, including environmental training designed for new employees. Other specific programs include: the Environmental Officers e-learning Training Program and the ISO 14001 Internal Environmental Auditors Training Program.

Environmental Training Programs and Seminars in the Year Ended March 31, 2021

Training Program/Seminar	Number of Participants
ISO 14001 Internal Environmental Auditors Training Program (Tokyo, Osaka)	45
Seminar on the Waste Management and Public Cleansing Act (Tokyo, Osaka, Nagoya, Hokkaido, Kyushu)	294
Training on the Waste Management and Public Cleansing Act (e-learning)	2,973
Group-Specific Training on the Waste Management and Public Cleansing Act	302

Environmental Assessment of Development Projects and Financing/Investment

From the fiscal year ended March 31, 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 performance.
This detailed assessment includes identification and status confirmation of elements within our operations that impact the environment, applicable environmental laws and regulations, emergency response measures, and environmental problems.

› For "Environmental Data" 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 Tokyo Head Office by the fiscal year ending March 31, 2026 compared to the year ended March 31, 2016. To achieve the numerical targets, the Company carries out initiatives such as introduction of energy-saving equipment, etc.

Targets to Achieve by the Year Ended March 31, 2021

	Numerical Targets in the FYE 3/2021	Results in the FYE 3/2021
(1) Energy Consumption at Tokyo Head Office and Osaka Branch	Reduce energy usage (electricity and gas) by 10.5% compared to the year ended March 31, 2010	73.4% decrease from the year ended March 31, 2010
(2) Waste Generation at Tokyo Head Office	Reduce waste generation by 30% compared to the year ended March 31, 2011	98.1% decrease from the year ended March 31, 2011
(3) Waste Recycling Rate at Tokyo Head Office	Achieve a waste recycling rate of 90% or more	39.5%
(4) Water Consumption at Tokyo Head Office	Reduce water consumption by 3% compared to the year ended March 31, 2011	96.9% decrease from the year ended March 31, 2011

* After setting target values, Marubeni Corporation, Osaka Branch moved in July, 2015, and the Tokyo Head Office moved to a temporary location in September, 2016 (due to the reconstruction of the permanent headquarters). At the Tokyo Head Office (for the period beginning in the year ended March 31, 2018 until relocation in 2021), goals commensurate with management methods at its temporary location have been set for waste generation, recycling rate and energy consumption, and efforts are being made to reduce energy usage, recycle more, and waste less.
* Water Consumption includes Tap Water only.

Targets to Achieve by the Year Ending March 31, 2026

	Targets in the FYE 3/2026
(1) Energy Consumption at 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 the year ended March 31, 2016
(2) Waste Generation at Tokyo Head Office	50% or more decrease from the year ended March 31, 2016
(3) Waste Recycling Rate at Tokyo Head Office	70% or more
(4) Water Consumption at Tokyo Head Office	50% decrease from the year ended March 31, 2016

* Tokyo Head Office is relocated from Nihonbashi to Takebashi new building in May 2021.
* 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 CO_2 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 the year ended March 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 Tokyo Head Office submission of Carbon Reduction Report of Specified Tenants, etc. is not required for the year ended March 2021. The emissions volume in Nihonbashi for the year ended March 31, 2021 was 1,900t-CO_2, a decrease of approximately 72% compared to the reference value.
In conjunction with the completion of the new Head Office in February 2021, Marubeni plans to submit the Carbon Reduction Reports starting from the year ending March 31, 2023 to the Tokyo Metropolitan Government.

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

Marubeni plans to submit the Carbon Reduction Reports starting from the year ending March 31, 2023 to the Tokyo Metropolitan Government.

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 CO_2 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 the year ended March 31, 2021 was 3,902t-CO_2, a decrease of approximately 70% compared to the reference value.

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

Data

Environmental Management System/Number of Reported Cases/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/Corrective Actions

	FYE 3/2021
Number of reported cases	4
Number of corrective actions	4 (of which 0 include fines/penalties)
Total fines	JPY 0 million

Environmental Protection Costs

Environmental protection costs for Marubeni's five principal offices (Tokyo Head Office and Hokkaido, Chubu, Osaka and Kyushu branches) for FYE 3/2021 are shown below.

Environmental Accounting for FYE 3/2021* (thousands of yen)	
Business area cost	2,246
Upstream/Downstream cost	6,339
Administration cost	287,559
R&D cost	0
Social activity cost	7,314
Environmental remediation cost	8,800
Total	312,258

* Aggregate data based on the Ministry of the Environment's *Environmental Accounting Guidelines 2005*

Waste Generated

<Click here to view Tokyo Head Office's target to be achieved by FYE 3/2021.>

(Unit: metric ton)

	FYE 3/2017	FYE 3/2018	FYE 3/2019	FYE 3/2020	FYE 3/2021
Marubeni Corporation's principal offices	432	6	8	39	4
Marubeni Corporation's other offices + consolidated subsidiaries	108,107	99,526	115,759	148,154	119,015
Total	108,539	99,531	115,767	148,192	119,019

・Materials with resale or reuse value are not included.

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	0
FYE 3/2020	0
FYE 3/2019	0
FYE 3/2018	0
FYE 3/2017	8.6

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

Target and Results for Serious Environmental Incidents* including Pollution

(Unit: case)

	FYE 3/2019	FYE 3/2020	FYE 3/2021	Target
Serious Environmental Incidents	0	0	0	0

* Includes Marubeni Corporation and its consolidated subsidiaries.

Marubeni Corporation's Emission Volumes

(Unit: metric ton)

	FYE 3/2019	FYE 3/2020	FYE 3/2021
NOx	0	0	0
SOx	0	0	0
VOC	0	0	0

* Data obtained on emission volumes of major consolidated subsidiaries is as follows: NOx: 901 metric tons, SOx: 955 metric tons, VOC: 30 metric tons

Paper Consumption (A4 paper sheet equivalent)

(Unit: thousand sheets)

	FYE 3/2017	FYE 3/2018	FYE 3/2019	FYE 3/2020	FYE 3/2021
Paper Consumption (A4 paper sheet equivalent) of Marubeni Corporation's principal offices	30,841	27,896	25,215	22,210	10,344

Recycling Rate

<Click here to view Tokyo Head Office's target to be achieved by FYE 3/2021.>

(Unit: %)

	FYE 3/2017	FYE 3/2018	FYE 3/2019	FYE 3/2020	FYE 3/2021
Recycling Rate of Marubeni Corporation's principal offices	88.7	89.8	83.6	41.8	61.7

・FYE 3/2020 includes an increase in waste due to large-scale layout work at the Osaka Branch.

Green Product Procurement Rate

(Unit: %)

	FYE 3/2017	FYE 3/2018	FYE 3/2019	FYE 3/2020	FYE 3/2021
Green Product Procurement Rate of Marubeni Corporation's principal offices	87.6	86.8	90.6	91.2	83.1

【The boundary of the environmental data】

・Marubeni Corporation's principal offices
Until FYE 3/2019, we covered six main branches (Tokyo Head Office, Hokkaido Branch, Chubu Branch, Osaka Branch, Kyushu Branch, and Shizuoka Branch), but from FYE 3/2020, we covered five main Branches (Tokyo Head Office, Hokkaido Branch, Chubu Branch, Osaka Branch, and Kyushu Branch).

・Consolidated subsidiaries
The subsidiaries that are designated to be liquidated or sold are excluded.
From FYE 3/2019, grain collection and exporting company based in the northern United States is included.
From FYE 3/2020, GHG emissions, energy consumption, and water withdrawal figures and from FYE 3/2021, water discharge figures include agricultural material sales company based in the southeastern United States (waste generated does not include it).

Environment

Climate Change

Policy | Disclosure in Line with the Recommendations of the TCFD | Initiatives | Data | Collaborating with Stakeholders

Policy

The Marubeni Group recognizes climate change as a global and highly urgent social issue, and identifies it as one of its Environmental and Social Materiality. In our Medium-Term Management Strategy, GC2024, which we released in February 2022, we see "strengthening our green business[*1]" and "promoting the greening in all our business domains" as core business for our growth. We aim to transform the total environmental impact of its business activities to a positive one by contributing to low-carbon and decarbonization through our business activities while ourselves achieving net-zero GHG emissions.

*1 Green business: sustainable businesses which have positive effects on the environment such as decarbonization and the circular economy, and adjacent businesses which supply those businesses with non-substitutable materials, etc.

› Environmental & Social Materiality> Climate Change

The Marubeni Long-Term Vision on Climate Change: Towards Net-Zero GHG Emissions (Formulated in March 2021)

Marubeni Corporation (hereinafter, "Marubeni"), based on the Paris Agreement, recognizes the importance and urgency of limiting the global average temperature increase by the end of this century to 1.5°C (hereinafter, the "1.5°C pathways"). For the purpose of medium- and long-term contributions to measures addressing climate change, Marubeni has formulated a long-term vision on climate change. In that vision Marubeni has set a goal to strive for net-zero GHG (greenhouse gas) emissions from the group by 2050. To make the goal of net-zero GHG emissions by 2050 an effective one, Marubeni has formulated action plans to be implemented heading towards 2030.

1. Net-Zero GHG Emissions by 2050

   Marubeni will abate GHG emissions at a level consistent with the said 1.5℃ pathways. Any residual emissions that cannot be abated will be neutralized (GHG elimination) through internationally recognized nature-based solutions (e.g., forests, farmland, etc.), or through technological solutions, with the aim of achieving net-zero GHG emissions by 2050.[*1]

   *1 Boundary of the net-zero GHG emissions:
   Scope 1: Direct emissions from owned or controlled sources of Marubeni and its consolidated subsidiaries, such as through burning of fuel, industrial process, etc.
   Scope 2: Indirect emissions from the generation of purchased energy consumed by Marubeni and its consolidated subsidiaries.
   Scope 3, Category 15 (Investments): Among all other indirect emissions that occur in the Marubeni Group's value chain, Scope 1 and Scope 2 for associate investees account for using the equity method (hereinafter, "associate investees").

   Action Plans towards 2030

   Marubeni has formulated the following action plans heading towards the year 2030 in order to make the goal of net-zero GHG emissions by 2050 effectively.

1) Halve the CO_2 emissions of FYE 3/2020, about one million tons of CO_2, emitted by Marubeni and its consolidated subsidiaries (Scope 1 and Scope 2)

Marubeni has revised the targeted abatement figure released in September 2020 (a 25% abatement from FYE 3/2019 levels by 2030) to make it at a more consistent level to the 1.5°C pathways, and will halve its total volume of emissions, which was about one million tons of CO_2 in FYE 3/2020 by 2030.

2) Reduce by one fifth the CO_2 emissions of the FYE 3/2020, about 36 million tons of CO_2*2, emitted by associate investees of the Marubeni Group (Scope 3, Category 15 (Investments))

*2 This emissions volume comprises the FYE 3/2020 performance of existing investees plus the estimated emissions from projects already contracted at the current point in time (as for power generation projects, projects for which associate investees of the Marubeni Group has entered into power purchase agreements but has yet achieved commercial operations.)

Changes in the emissions volume associated with increased emissions from new investments and fluctuations in the emissions volume by plant load factors, as well as reductions in the emissions volume due to the utilization of new technologies (CCS*3, co-combustion of hydrogen and ammonia, etc.), are not included in the assumptions for the above estimation. In the interest of meeting the needs of society as it makes the low-carbon transition, the development of new gas-related projects such as gas-fired power generation businesses will continue. For aspects which could affect the emissions volume by associate investees going forward, we will monitor the progress of abatement of GHG emissions and conduct reviews thereof. In addition, we will continually perform studies with the aim of establishing milestones towards net-zero GHG emissions by 2050 that are consistent with the 1.5°C pathways.

*3 CCS: Carbon dioxide Capture and Storage

3) Move up the timetable to halve the net power generation capacity of our coal-fired power generation businesses

Based on our Business Policies Pertaining to Sustainability (In Relation to Our Coal-Fired Power Generation Business and Renewable Energy Generation Business) that Marubeni released in September 2018, and taking into account the progress made so far in pulling out of coal-fired power generation, we will accelerate our goal of cutting our FYE 3/2019 coal-fired power net generation capacity in half by 2030 to 2025, and aim for approximately 1.3 GW as our coal-fired power net generation capacity in 2030 (included in the above reduction figure 2) for associate investees), and further, aim for zero by 2050.

4) Absorb and sequestrate CO_2 through our forests

Marubeni will strive to expand the volume of carbon stocks in our forests (currently about 11 million tons of CO_2 equivalents*4) and, at the same time, expand the sequestrated volume of carbon through the multi-purpose utilization of afforested assets.

*4 By enlarging some of our plantation areas, improving stock volume per-unit area, and through the proper management of managed forests, estimated volume of carbon stocks in our forests will be about 19 million tons of CO_2 equivalents in 2030.

By executing these actions, by 2030 the Marubeni Group will try to abate its FYE 3/2020 emissions by one fifth over the total scope covered by our net-zero GHG emissions goal. This plan was formulated to apply to the Marubeni Group's business portfolio at the present time and is based on certain assumptions about current international recognition and foreseeable changes in system and technological innovations. Marubeni will revise them appropriately in light of any future changes to these premises.

2. Contributing to low-carbon/carbon-free goals through business activities

The Marubeni Group views the transition to low-carbon/carbon-free goals as a business opportunity, and will use its business activities to continue contributing to the abatement of GHG emissions that our society produces. In terms of contribution by energy supply, Marubeni strives to construct the energy systems that will serve as the foundations for a decarbonized society, and in terms of energy demand, Marubeni will help other emitters to control/abate GHG emissions over a broad range of industries. Moreover, in the realm of land use, Marubeni will promote initiatives towards sustainable agri-input businesses and forest management.

For further details, please see The Marubeni Long-Term Vision on Climate Change .

The Marubeni Group aims to transform the total environmental impact of its business activities to a positive one by contributing to low-carbon and decarbonization through its business activities while itself achieving net-zero GHG emissions.

* The following policy was initially announced in September 2018 and updated based on the latest status as of July 2021.

Business Policies Pertaining to Our Coal-Fired Power Generation Business and Renewable Energy Generation Business (Formulated in September 2018)

Marubeni Corporation (hereinafter, "Marubeni") recognizes that climate change is a major issue shared by all of humanity. It is a problem that threatens the co-existence of the global environment and society, a problem that has an enormous effect on Marubeni's business and its shareholders, and a problem that Marubeni believes must be dealt with swiftly. Therefore, as part of Marubeni's promotion of sustainable management, and in order to contribute to fight against global climate change, Marubeni has established new business policies (hereinafter, "Policies") regarding its coal-fired power generation business and its renewable energy generation business.

1. The Process of Pulling Out of Coal-Fired Power Generation

   As a global player in the power business, Marubeni will reduce its greenhouse gas emissions volume from its power generation portfolio. By 2025, Marubeni will cut its FY2018 coal-fired power net generation capacity of approximately 3GW in half, and aim for approximately 1.3GW as our coal-fired power net generation capacity in 2030, and further, aim for zero by 2050. *1 Additionally, Marubeni will deploy innovative technologies to increase the efficiency of its portfolio assets, and proactively promote the reduction of its environmental impact.
2. The Policy on New Coal-Fired Power Generation Business

   Marubeni will no longer enter into any new coal-fired power generation business.
3. Proactive Involvement in Renewable Energy Generation Business

   Looking forward to the expansion of the renewable energy generation business, Marubeni will strive to expand the ratio of power generated by renewable energy sources in its own net power supply from approximately 10% to approximately 20% by 2023. Furthermore, Marubeni will contribute to the transition towards a low-carbon society by promoting the expansion of the handled volume of renewable energy sources pertaining to energy trading. An example of this is SmartestEnergy Ltd.*2, a wholly-owned subsidiary located in the United Kingdom that manages approximately 3GW of total energy, which is purchased from independent generators; about 80% of that 3GW is generated by renewable energy sources.

Moving toward the achievement of these Policies, Marubeni will work to properly communicate and cooperate with its diverse stakeholders, and also proactively disclose updates on Marubeni's progress in reaching these goals. Additionally, given the changes to the external environment, Marubeni will refer to the various international guidelines, beginning with the OECD Export Credits Arrangement, diligently monitor measures taken by different countries in terms of coal-fired and renewable energy generation business, as well as the international state of affairs, and use this information to periodically review and rework its own policies from the standpoint of climate change counter measures.
In April 2018, Marubeni launched the Sustainability Management Committee (hereinafter, "the Committee") under the supervision of the President and CEO, with the aim to strengthen the company's sustainability initiatives. Since its launch, and while soliciting the opinions of external parties, the Committee has discussed a number of basic policies and measures pertaining to Marubeni's sustainability initiatives, beginning with identification and periodic review of the materiality. Policies and measures considered as a result of these discussions will be announced as part of Marubeni's ESG related data once it has been compiled.

*1 The Process of Pulling Out of Coal-Fired Power Generation is updated in line with the Marubeni Long-Term Vision on Climate Change: Towards Net-Zero GHG Emissions (formulated in March 2021).
*2 SmartestEnergy Ltd., established by Marubeni in the U.K. in 2001, purchases power from small to medium sized independent generators, and resells on the wholesale market or to retail customers. https://www.smartestenergy.com/

Disclosure in Line with the Recommendations of the TCFD

Recognizing the importance of climate-related financial disclosures, the Marubeni Group affirmed the recommendations of the TCFD*2 in February 2019.
We are endeavoring to evaluate risks and opportunities engendered by climate change and to enhance related disclosure.

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

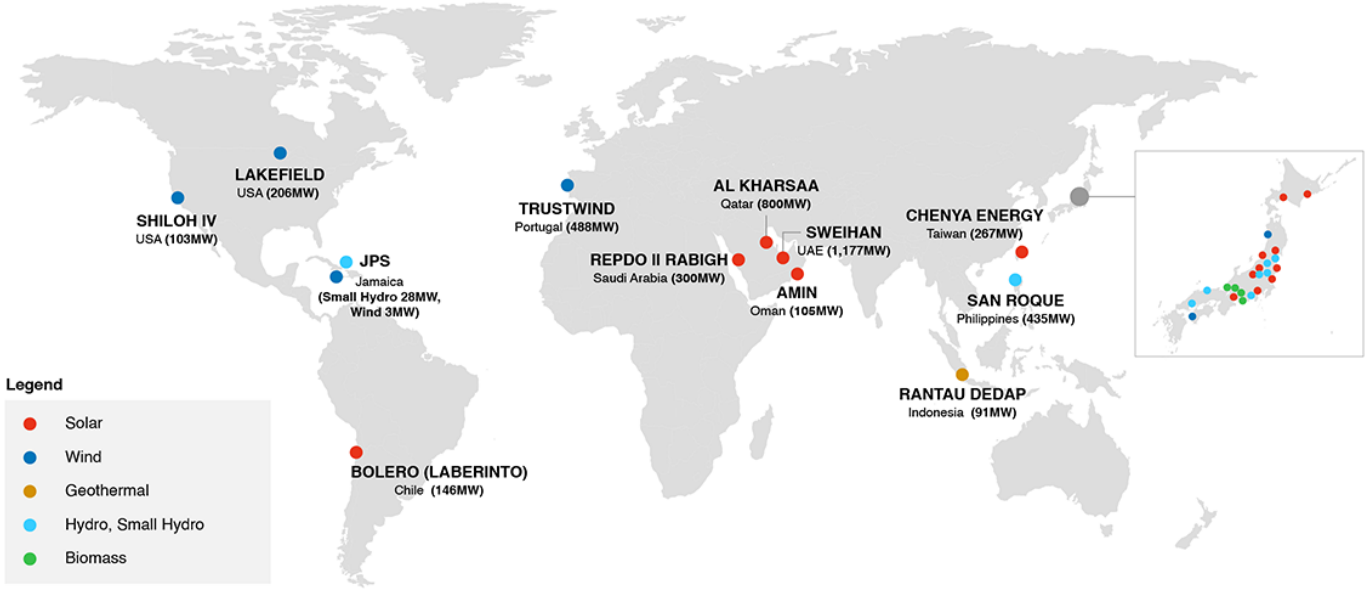
› Click here to view the latest version (September 2021 (Revised December 2021))

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.*3

*3 Renewable energy power generation currently accounts for approximately 15% of our net generation capacity as of March 2021. We will increase this to approximately 20% by 2023.



* For detailed information on renewable energy business in Japan, click here.

Initiatives for Micro-Scale Hydro-Power Generation Business

The Marubeni Group considers micro-scale hydro-power generation as an important business area, and has been conducting operations in this area through Group company, Mibugawa Power Company since 2006. As this business utilizes natural energy sources, consideration for the environment is essential, and we are also actively working on reduction of waste materials, maintenance of water quality, conservation of energy and resources, and other environmental activities.

“Micro-scale hydro-power generation” is a term used to refer to small-scale hydropower generation operations with output of less than 1,000 kW. These operations do not require the use of dams or other facilities that entail large-scale construction projects, but rather generate power by utilizing streams 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, these operations emit almost no CO_2, thereby offering benefits in terms of minimal impact on biodiversity and environmental conservation. Since it utilizes local water resources, it has the potential to be an effective technology to realize the production and consumption of local energy, which will be beneficial for the independent development of the region. Moreover, to develop a power plant that coexists with the local community, we are trying to realize the project with the understanding and cooperation of local organization and people concerned through holding events on the theme of environment for residents, inviting lecturers, and deepening understanding of the history of the planned site.

In addition to the Mibugawa Power Station, the Marubeni Group currently operates the following micro-scale hydro-power generation facilities.

Producing power locally: Mibugawa Power Company

Micro-scale hydro-power station (Hokuto City, Yamanashi Prefecture)

Micro-Scale Hydro-Power Generation Facilities (as of March 2021)

Facility	Location	Approved Output
Mibugawa Power Station No. 1	Ina City, Nagano Prefecture	23,100kW
Mibugawa Power Station No. 2		10,800kW
Mibugawa Power Station No. 3		260kW
Mibugawa Power Station No. 4		480kW
Tateshina Power Station	Chino City, Nagano Prefecture	260kW
Tateshina Power Station No. 2		141kW
Tateshina Power Station No. 3		93kW
Tateshina Power Station No. 4		145kW
Shinmiyagawa Power Station	Komagane City, Nagano Prefecture	195kW
Hokuto Nishizawa Power Station	Hokuto City, Yamanashi Prefecture	220kW
Hokuto Kagoishi Power Station		230kW
Hokuto Kurabara Power Station		200kW
Honmonji Power Station No.1	Fujinomiya City, Shizuoka Prefecture	120kW
Honmonji Power Station No.2		140kW

Facility	Location	Approved Output
Shiroishi Power Station	Shiroishi City, Miyagi Prefecture	95kW
Hananosato Power Station	Shimogo, Fukushima Prefecture	175kW
Banyagawa Power Station		150kW
Himenuma Power Station	Inawashiro, Fukushima Prefecture	160kW
Minochigawa Power Station	Hiroshima City, Hiroshima Prefecture	180kW
Sagotani Power Station		108kW
Toyohira Power Station	Kitahiroshima, Hiroshima Prefecture	112kW
Tsukuyone Power Station	Wakasa Town, Tottori Prefecture	7,890kW
Oshika Power Station No.1	Misasa Town, Tottori Prefecture	3,700kW
Oshika Power Station No.2	Misasa Town, Tottori Prefecture	4,990kW
Hinogawa Power Station No.1	Hino Town, Tottori Prefecture	4,300kW

Mibugawa Power Station has obtained Eco Action 21[*4] certification, the first hydro-power facility to do so. Given that the intake of Power Station No. 2, which is located at the highest elevation, is next to a quasi-national park, and the facilities of the Mibugawa Power Station are in a region with high biodiversity value, we strive not only to avoid destruction of nature, but also to preserve it. As part of that effort, in addition to conducting river cleanup activities and facility maintenance and emergency response training to be prepared for possible oil spills, Mibugawa Power Station 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. The facility also welcomes local elementary and middle school students and over 100 residents each year for tours of the power station, and presents exhibits of hybrid power generation systems (wind, solar and hydro-power). These and other activities help educate people about renewable energy and pass on the region's traditional culture.

At the Hokuto City Murayamarokkamuraseki-Waterfarm[*5], we use existing irrigation canals to supply renewable energy while making appropriate adjustments to the volume of water used to ensure adequate supplies of irrigation water for farmland and water for household use.

At the micro-scale hydro-power 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.
The Marubeni Group aims to develop about 40 micro-scale hydro-power generation facilities in Japan by 2025. Across Japan, we are actively working on generation of renewable energy that contributes to conservation of the local environment and biodiversity.

M&C Tottori Hydroelectric Power Co., Ltd. (hereafter, M&C Tottori Hydroelectric Power) believes that building a trusting relationship through communication with local residents is essential for the safe and secure operation of hydroelectric power generation projects. To this end, M&C Tottori Hydroelectric 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 Town) and various councils on important issues related to the environmental impacts, e.g. on rivers and a stable water supply, that may arise from construction, inspections, etc. Thanks to these initiatives, M&C Tottori Hydroelectric Power understands each municipality's needs (including complaints) and business risks and incorporates them into its management strategy.
In addition, M&C Tottori Hydroelectric Power plans to offer on-site classes and work experience for elementary and junior high schools on the theme of hydroelectric power generation projects. M&C Tottori Hydroelectric 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.

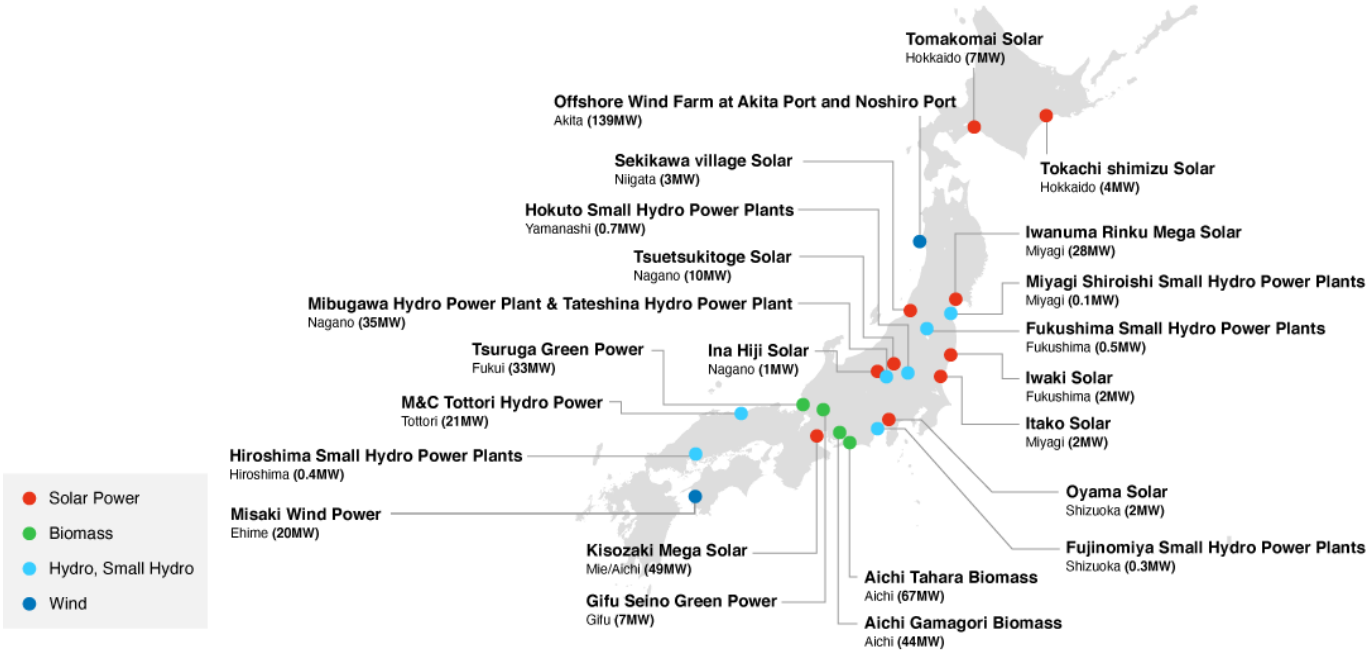
Marubeni Clean Power Corporation (hereafter, “Marubeni Clean Power”) is “committed to solving local social issues and coexisting with local communities and the natural environment.” Therefore, Marubeni Clean Power is developing renewable energies, mainly biomass, with the aim of realizing a “stable energy supply closely linked to the community.” As part of its business activities, Marubeni Clean Power is actively involved in interactions with local stakeholders, such as local environmental fairs and beautification campaigns, conducting power plant tours and distributing solar kits to local elementary school children, and participating in study sessions of the Chamber of Commerce and Industry.
Marubeni Clean Power participates in Biomass Power Association (hereafter, the Association) as a regular member (Director Company) and serves as its representative director. The Association, which was primarily established by power generation companies, 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.

Marubeni Ina Mirai Denki Corporation*6 provides electric power retail and energy-related services in and around Ina City, Nagano Prefecture, with the aim of offering services that address the challenges of daily life in the community. As part of its investment in the community, the company has installed “quick chargers for cars,” which contribute to the local production and consumption of electricity. The company is a member of the Sustainable Environment Subcommittee of the New Industrial Technology Promotion Council under the jurisdiction of Ina City, and it is taking the initiative to work together to build a sustainable environment, including a focus on issues such as climate change and biodiversity.
The Marubeni Group's Mibugawa Power Company also operates a hydroelectric power generation business in the area. As a group, the company will contribute to sustainable regional development by building a business portfolio that helps build a society in harmony with the local community.

*4 A system based on guidelines for environmental management systems and environmental reporting set by the Ministry of the Environment
*5 The four micro-scale hydro-power stations at Murayamarokkamuraseki in Hokuto City (Hokuto Nishizawa Power Station, Hokuto Murayamarokkamuraseki Hydro-power Station (municipally-owned), Hokuto Kagoishi Power Station and Hokuto Kurabara Power Station)
*6 The company's shareholders are Marubeni Corporation (56%), Chubu Electric Power Miraiz Co., Inc. (34%), and Ina City (10%). The company has established a system of monitoring against goals, deadlines, and results related to regional development through consultations among shareholders.

Initiatives for Solar and Wind and Biomass Power Generation

Throughout Japan, in addition to the development of micro-scale hydro-power generation projects, the Marubeni Group is actively working on generation of renewable energy that contributes to conservation of the global environment and biodiversity.



Data

Greenhouse Gas Emissions

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

〈Scope 1 & 2 Greenhouse Gas Emissions〉

(Unit: metric ton CO_2e)

		FYE 3/2017	FYE 3/2018	FYE 3/2019	FYE 3/2020	FYE 3/2021
Scope 1	Marubeni Corporation's principal offices	41	4	4	4	12
	Marubeni Corporation's other offices + consolidated subsidiaries	626,237	682,402	726,704	773,194	797,963
	Sub Total	626,278	682,406	726,708	773,198	797,975 (Including non-energy related GHG emission*7) (683,025 (Excepting for non-energy related GHG emission*7))
Scope 2	Marubeni Corporation's principal offices	3,425	2,457	2,439	2,307	2,146
	Marubeni Corporation's other offices + consolidated subsidiaries	277,706	274,413	305,776	308,193	280,025
	Sub Total	281,131	276,870	308,215	310,500	282,171
Grand Total		907,409	959,276	1,034,922	1,083,698	1,080,146 (Including non-energy related GHG emission*7) (965,196 (Excepting for non-energy related GHG emission*7))

・CO_2 emission factors for fuels and steam
CO_2 emission factors stipulated by the Act on Promotion of Global Warming Countermeasures are used.

・CO_2 emission factors for electricity
Emission factors for each electric power provider released by the Ministry of the Environment are used for Marubeni Corporation. Until FYE 3/2019, fundamental emission factors (actual emission factors) are used, from FYE 3/2020, adjusted emission factors are used. Alternative emission factor stipulated by Act on Promotion of Global Warming Countermeasures was replaced by Emission factors (adjusted emission factors) for each electric power provider for the domestic consolidated subsidiaries from FYE 3/2021. The impact on emissions due to the change in emission factors is a decrease of 7,627 metric ton CO_2.
Country-specific emission factors (CO_2 emissions per kWh from electricity generation) published by International Energy Agency are used for the international consolidated subsidiaries. Electricity derived from renewable energy is excluded from calculation of Scope 2 greenhouse gas emissions since FYE 3/2021.

・Emission factors of non-energy related GHG
Emission factors stipulated by the Act on Promotion of Global Warming Countermeasures are used.

・Non-energy related GHG emission before FYE 3/2020 is not included in GHG emissions.
For FYE 3/2021, non-energy related GHG emission is included in GHG emissions, but the GHG emissions other than non-energy related GHG emission are disclosed in the sub total of Scope 1 and grand total values.

〈Scope 1 Greenhouse Gas Emissions (Components of non-energy related GHG emission)〉

(Unit: metric ton CO_2e)

		FYE 3/2021
Total amount		114,950
Components	Carbon dioxide (CO_2)	5,203
	Methane (CH_4)	72,081
	Dinitrogen monoxide (N_2O)	36,602
	Hydrofluorocarbons (HFCs)	1,064
	Perfluorocarbons (PFCs)	0
	Sulphur hexafluoride (SF_6)	0
	Nitrogen trifluoride (NF_3)	0

*7 Non-energy related GHG emission cover carbon dioxide from the use of dry ice, fuel use in facilities and machinery used for fuel combustion, livestock feeding (fermentation in the digestive tract of livestock), livestock waste management, waste incineration or use in the manufacture of products, methane and dinitrogen monoxide from the use of waste fuels, hydrofluorocarbons in the recovery and encapsulation of HFCs in the maintenance of commercial refrigeration and air conditioning equipment, and sulfur hexafluoride in the use of electrical machinery and equipment such as transformers. There are no emissions of perfluorocarbons and nitrogen trifluoride. For sulfur hexafluoride, there are no companies obliged to report based on Act on Promotion of Global Warming Countermeasures.

〈Scope 3 Greenhouse Gas Emissions〉

In recent years, companies are required to further disclose information related to climate change and resource issues, toward creating a sustainable society. In calculating greenhouse gas (GHG) emissions that have significant effects on climate change, in addition to Scope 1 (direct emissions) and Scope 2 (energy-originated indirect emission), more and more companies are calculating and reporting GHG emissions for the overall corporate activities (Scope 3) such as resource procurement, production, logistics, sales, and disposal, as well as capital goods, business travel, and commuting. 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. The Scope 3 data is also submitted to the Carbon Disclosure Project (CDP) climate change questionnaire.

› Corporate Value Chain (Scope 3) for FYE 3/2021 [158KB]

(Unit: metric ton CO_2)

		FYE 3/2020	FYE 3/2021
Scope 3 CO_2 emissions (Category 15: Investment)		approx. 26 million	approx. 25 million
Breakdown	Power generation	approx. 22 million	approx. 21 million
	Resource projects	approx. 3 million	approx. 3 million
	Other businesses	approx. 1 million	approx. 1 million

Energy and Electricity Consumption

<Click here to view Tokyo Head Office and Osaka Branch's target to be achieved by FYE 3/2021.>
<Click here to view carbon neutral at all Marubeni Corporation's domestic business locations.>

	FYE 3/2017	FYE 3/2018	FYE 3/2019	FYE 3/2020	FYE 3/2021
Electricity consumption of Marubeni Corporation's principal offices (Unit: MWh)	7,239	5,021	5,180	5,227	4,629
Energy consumption of Marubeni Corporation and consolidated subsidiaries （Unit: TJ）	12,740	13,532	14,384	15,303	13,771

・3.6 GJ/MWh is used for heat value per unit for electricity.

・For fuels, the heat values stipulated by the Act on Promotion of Global Warming Countermeasures are used.

・Biomass energy is not included.

Environmental Impact of Transport

	FYE 3/2017	FYE 3/2018	FYE 3/2019	FYE 3/2020	FYE 3/2021
Amount transported (Thousand ton-km)	565,792	472,290	508,498	484,678	364,538
CO_2 emissions (metric ton CO_2)	27,938	21,445	22,705	22,617	17,516
Intensity (kl crude oil eq per thousand ton-km)	0.0183	0.0168	0.0165	0.0173	0.0178

・From FYE 3/2017 to FYE 3/2021
This table shows the impacts associated with the outsourced shipment of goods consigned by Marubeni Corporation.

Costs Associated with Climate Change

(Unit: thousands of yen)

Data	Contents	FYE 3/2022*8
Cost of climate change risk aversion	Emergency power generation and flood countermeasures due to extreme weather conditions	5,732
Research and development expenses for climate change risk aversion	Research and development expenses related to forest conservation, etc.	2,830

*8 Actual results as of March 11, 2022

【The boundary of the environmental data】

・Marubeni Corporation's principal offices
Until FYE 3/2019, we covered six main branches (Tokyo Head Office, Hokkaido Branch, Chubu Branch, Osaka Branch, Kyushu Branch, and Shizuoka Branch), but from FYE 3/2020, we covered five main Branches (Tokyo Head Office, Hokkaido Branch, Chubu Branch, Osaka Branch, and Kyushu Branch).

・Consolidated subsidiaries
The subsidiaries that are designated to be liquidated or sold are excluded.
From FYE 3/2019, grain collection and exporting company based in the northern United States is included.
From FYE 3/2020, GHG emissions, energy consumption, and water withdrawal figures and from FYE 3/2021, water discharge figures include agricultural material sales company based in the southeastern United States (waste generated does not include it).

Note: From FYE 3/2018, kerosene, diesel oil and gasoline are included. In FYE 3/2018, CO_2 emissions associated with consumption of kerosene, diesel and gasoline was 25 thousand metric tons of CO_2.

Collaborating with Stakeholders

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[*9] 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 CO_2, as well as R&D and testing in these fields.

*9 CCS is an acronym for Carbon dioxide Capture and Storage and refers to the capture and storage of carbon dioxide (CO_2). Specifically, it involves technologies for capturing CO_2 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.

Large-Scale CCS Demonstration Project

Marubeni is working on a project to verify the establishment of an international supply chain to liquify hydrogen produced with unused lignite (i.e. "brown coal") from Victoria, Australia, and transport it to Japan. For the future commercialization of liquified hydrogen made with this technology, it will be necessary to use CCS technologies to capture, and store the CO_2 generated in the hydrogen production process. In part because of this, Marubeni regularly visits the Tomakomai CCS Demonstration Project Center, which is a facility in the city of Tomakomai, Hokkaido, operated by Japan CCS Co., Ltd., to observe the work done there. The demonstration project has been running from FY2012 to FY2019, and is slated to store a cumulative total of 300,000 tons of carbon dioxide underground.

› Japan CCS Co., Ltd.
› Shareholders

Environment

Sustainable Forestry

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 Group.

(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 Group 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), pulp, and 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.

Initiatives

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 3/2021 showed that of the 726 suppliers of timber and related products, the 77 major suppliers (with an annual turnover of JPY 300 million or more) exhibited no significant problems within the scope of the DD. This survey covered 84% of Marubeni's annual turnover of forest-derived products. We intend to gradually expand the scope of the DD and strive for more sustainable utilization of forest resources.

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 3/2021 Survey

■Applicable items and transactions of related products

The survey covered the four items based on the Procurement Policy (Forest-derived Products), i.e. logs, woodchips (including fuel woodchips), pulp, and paper / paperboard products, which correspond to 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

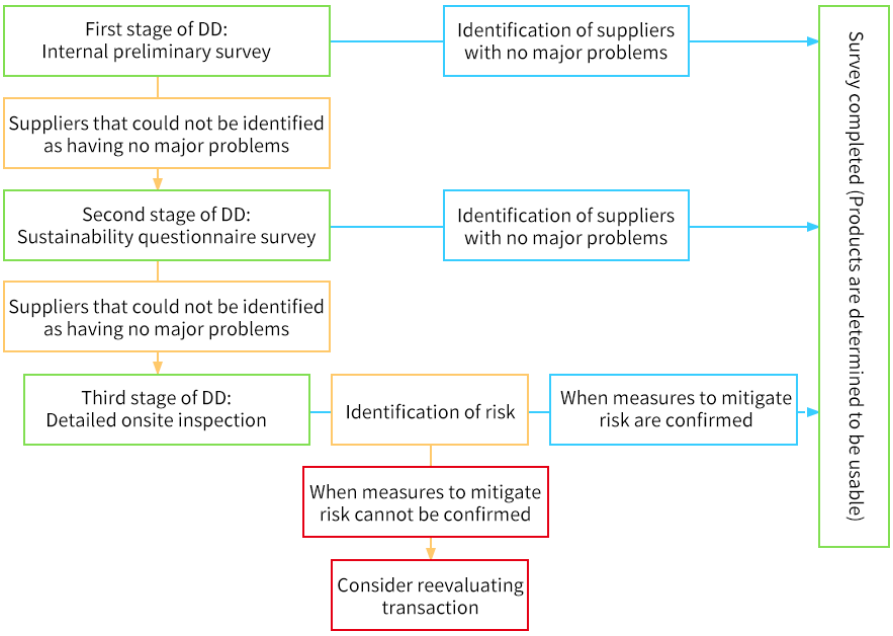
We first selected the 77 major suppliers (with an annual turnover of JPY 300 million or more) out of our 726 suppliers of timber and related products. Of these 77 suppliers, 11 companies handling products other than certified wood from an entity which has acquired forest certification (FSC[*1] certification, 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 wood[*4], and controlled wood based on a certification system under a mutual certification agreement with PEFC), which were found to be in need of undergoing a sustainability questionnaire survey by Marubeni, were identified as subjects for the second stage of DD. In FYE 3/2020 and FYE 3/2021, 25 companies were identified as the subjects for the second stage of DD (equivalent to 43% of Marubeni's turnover of forest-derived products).

② Second stage of DD: Sustainability questionnaire survey

A sustainability questionnaire survey was conducted on the 11 companies identified in the first stage of DD. As a result, no significant problems were confirmed with these 11 companies.

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 3/2021, 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.

Sustainable Forest Management

Forest area throughout the world began to decline rapidly in the 20th century. Forests fulfill a variety of environmental functions, including biodiversity conservation, erosion control, and watershed conservation. The wood resources we obtain from forests also play important roles in our daily lives. Marubeni recognizes that sustainable forest management is of the utmost importance because of the social and economic value that forests provide.

WA Plantation Resources Pty., Ltd.(WAPRES)

The Marubeni Group*1 currently holds some 130,000 hectares of tree plantations in Australia and Indonesia (total gross project area is about 300,000 hectares). Focusing on eucalyptus, a fast-growing broadleaf tree that matures in six to ten years, and through a controlled cycle of planting, cultivation, management and harvesting, we provide a stable and sustainable supply of wood resources used for pulp and paper. Because we plant on sites that do not threaten the lives and livelihood of local inhabitants and do not harvest natural forests, our forest plantation business is sustainable and demonstrates consideration for the environment and regional communities.

The Marubeni Group's forest management is operated in accordance with standards established by forest certification systems. WAPRES, which operates the forest plantation and wood chip production business in Australia, has obtained Forest Management certification (FSC® C016260)*2 and Chain of Custody certification*3 from the Forest Stewardship Council*4 (FSC), and Sustainable Forest Management certification from Responsible Wood*5.

MHP, which operates the forest plantation business in Indonesia, has obtained Forest Management certification from the Indonesian Forestry Certification Cooperation*6. Wood harvested from the plantation managed by MHP is supplied as 100% certified wood as of March 31, 2021.

The Marubeni Group will continue to manage the supply chain*7 for manufacturing pulp and paper in a sustainable manner.

*1 The Marubeni Group's forest plantation business is conducted by two consolidated subsidiaries: WA Plantation Resources Pty., Ltd. (WAPRES) in Australia and PT. Musi Hutan Persada (MHP) in Indonesia.
*2 Forest Management certification/Sustainable Forest Management certification: Certification that a forest owner or management organization conducts sustainable forest management based on certain criteria established by an independent third party.
*3 Chain of Custody certification: A certification of manufacturers, processors and distributors that manage wood and wood products from certified forests separately from other materials based on certain criteria established by an independent third party.
*4 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.
*5 Responsible Wood (Certification Scheme): A forest certification system in Australia endorsed and mutually recognized under the Programme for the Endorsement of Forest Certification (PEFC*8), an international forest certification system for the endorsement and mutual recognition of forest certification systems of various countries.
*6 Indonesian Forestry Certification Cooperation: A forest certification system in Indonesia endorsed and mutually recognized under the PEFC*8.
*7 The Marubeni Group has businesses that span the pulp and paper supply chain, with a pulp mill at PT. Tanjungenim Lestari Pulp and Paper, a consolidated subsidiary in Indonesia, the two paper mills of consolidated subsidiaries Koa Kogyo Co., Ltd. and Fukuyama Paper Co., Ltd., and a paper recycling business at Marubeni Paper Recycle Co., Ltd.
*8 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.

(As of April 2021)

Forestry-related Business

Initiatives for Cellulose Nanofiber (CNF)

In 2017, Marubeni established a CNF Business Incubation Section to cultivate markets, to develop and sell products using CNF materials together with our partner, Chuetsu Pulp & Paper Co., Ltd.*1
CNF is a processed wood fiber (pulp) that is micro-refined to a nanometer (a nanometer is one billionth of a meter) in size, which has more than five times the strength of steel while weighing only one-fifth as much as steel. Although the material is made from plants, a renewable resource, CNF has a variety of potential to be used in such as automobiles, home electric appliances, cosmetics, and we have already supplied it for audio devices and sports equipment like table tennis rackets.
In August 2020, we have begun to sell a composite resin with enhanced strength impact using CNF. It is expected that the product will be put to practical use in the automotive industry and various other industrial fields.
We will continue to develop and supply new eco-friendly materials to the market.

*1 Chuetsu Pulp & Paper Co., Ltd http://www.chuetsu-pulp.co.jp/ (Japanese Only)

Initiatives for Reducing Environmental Impact (Koa Kogyo)

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 waste water, 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 waste paper 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 CO_2 emissions.

In addition, Koa Kogyo collects waste paper 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 for Environmentally Friendly Pulp Manufacturing

To reduce its impact on the environment, the pulp mill of our subsidiary in Indonesia employs elemental chlorine-free (ECF) bleaching pulp manufacturing process.

› See here to learn more about our ECF initiatives

Data

Performance Data of Forest Certification Acquisition

The Marubeni Group (hereinafter referred to as “we”) 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 to consolidated net sales of the Forest Products Division

Item	2018	2019	2020
Total of FSC*1, PEFC*2	33%	39%	39%

*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.

Environment

Conservation of Biodiversity and Habitats

Policy | Initiatives

Policy

Our Views on Biodiversity

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 have some degree of impact on the natural environment and biodiversity, and that all businesses benefit from nature. As stated in the Marubeni Group Environmental Policy, the Marubeni Group will endeavor to protect biodiversity and ecosystems, and contribute to conservation of biodiversity, which is an urgent issue in the world along with climate change.

› Click here to view Marubeni Group Environmental Policy

Initiatives

Conservation of Biodiversity and Habitats

Asian Waterbird Census

Habitat survey

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 "Wetland International", every year since 2010, and collects data on waterbirds within a 10-kilometer radius of the Pagbilao and Sual power plants, which are owned and operated by TeaM Energy. The survey has confirmed that the environmental impact on the neighborhoods around the power plants is low, and a healthy environment is being maintained.

The areas around the Pagbilao and Sual power plants 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 plants 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. In the 2020 survey, a total of 313 Philippine ducks and 10 brahminy kites were confirmed at the power plant sites and within a 10-kilometer radius.

Afforestation Program

TEFI is carrying out projects to plant acacia, eucalyptus and other tree varieties at its Pagbilao and Sual power plants 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 95%. To date, approximately 100 hectares at Sual and 328 hectares at Pagbilao have been planted and are being maintained.

Afforested area

For approximately four years, until the Pagbilao and Sual power plants are transferred to the state-run power company from 2024 through 2025, Marubeni will continue to protect and maintain a total of 144,400 hectares of 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.

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 the 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

Entry into the Salmon Farming Business via Recirculating Aquaculture System

Responding to the Rising Global Demand for Marine Products

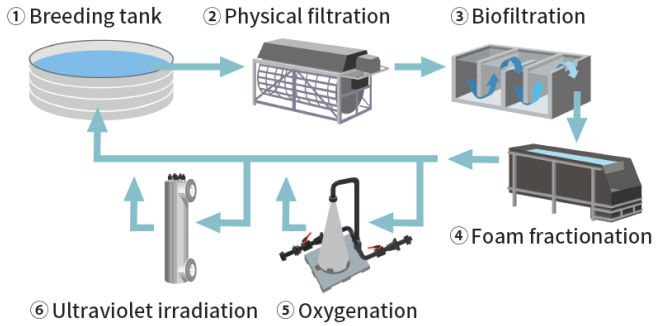
The improvement of living standards in the developing countries and growing health consciousness in the developed countries have resulted in the yearly increase in the global demand for marine products. Nevertheless, as the fish catch from fisheries has remained stable for the past 30 years, aquaculture 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

The Handling of RSPO/ISCC Certified Products

Roughly 30% of the palm oil and palm oil derivative products handled by our subsidiary Pasternak, Baum & Co., Inc. (USA) are RSPO/ISCC certified products.
We are doing our part to promote such certified products by responding to the needs of our environmentally conscious customers.

Environment

Water Management

Policy

Recognition of Water Resources

The earth's water resources are said to be 97.5% seawater, with only 2.5% fresh water that can be used for farming and drinking. And 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, 2021, 41 (20%) of the 202 Marubeni Group companies had established water management plans. (Of the 2,240 operation sites covered by the "Sustainability survey", 169 operation sites that account for 8%, had established water management plans.) These companies monitor and manage the amount of water withdrawal, waste water, and recycled water, as well as quality and temperature of waste water, 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 waste water, 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)

Another example, The Nisshin OilliO Group, Ltd. has set the target of reducing water consumption (tap water and industrial water) intensity at its four production bases in Japan in the year ending March 31, 2031 by 16% compared to the year ended March 31, 2017, and is implementing reduction measures and progress management to meet that goal.

› Click here to view Nisshin OilliO's initiatives (Japanese only)

Initiatives in Water-Stressed Regions

The Marubeni Group owns and operates four IWPP[*1] projects in the arid region Abu Dhabi in the United Arab Emirates. In total, 440 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 in the United Arab Emirates (as of March 31, 2021)

Project	Gross Desalination Capacity (Million imperial gallons per day)
Taweelah A2	50
Taweelah B	160
Fujairah F2	130
Shuweihat S2	100

We are involved in a variety of projects in arid regions and regions with scarce water sources around the world. They include water and sewerage concessions to build-own-operate (BOO) projects, engineering, procurement and construction (EPC) projects, and operation, maintenance, and management for water treatment facilities.
Specifically, the concession businesses and BOO project we operate in Chile, Brazil, the Philippines, Portugal and Peru have a total water purification capacity of 3.7 million cubic meters per day and wastewater treatment capacity of 1.9 million cubic meters per day, and cover a service population totaling approximately 14.3 million people.

*1 IWPP: Independent Water and Power Producer

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 10.2 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 households 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

Outline of Maynilad's Business (as of March 31, 2021)

Treatment Facilities	Treatment Capacity
Water purification plant	2,700,000㎥/day
Sewage treatment plant	663,000㎥/day
Sludge treatment plant	1,100t/day

› Click here to view Maynilad's initiatives

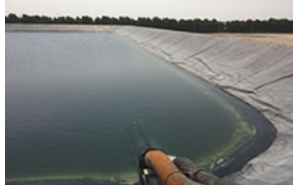
Marubeni has participated from the construction stage at the Doha West, Doha North, and Lusail Sewage Treatment Plants, which are the major sewage treatment plants in Doha, the capital of Qatar with approximately 2.7 million people. At the Doha West and Lusail Plants Marubeni had conducted the operation 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 greywater 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.

Doha West sewage treatment plant

Lusail sewage treatment plant

The amount of water treated daily at each plant is shown below. 385,000㎥ of greywater was supplied across Doha per day. (as of March 31, 2021)

Sewage Treatment Plant in Qatar	Sewage Treatment Plant Capacity
Doha West sewage treatment plant	340 thousand ㎥/day
Doha North sewage treatment plant	439 thousand ㎥/day
Lusail sewage treatment plant	60 thousand ㎥/day
Treatment Capacity	839 thousand ㎥/day



Lusail sewage treatment plant

Water-Related Risk Quantification and Financial Impact Measurement

At Maynilad Water Services, Inc., a Marubeni Group company, 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.

Data

Water Withdrawal

<Click here to view Tokyo Head Office's target to be achieved by FYE 3/2021.>

(Unit: thousand ㎥)

	FYE 3/2017	FYE 3/2018	FYE 3/2019	FYE 3/2020	FYE 3/2021
Marubeni Corporation	40	4	4	5	396
Marubeni Corporation's consolidated subsidiaries	50,985	50,525	55,251	54,892	80,690
Total	51,025	50,529	55,256	54,897	81,086
Mibugawa Power Company	—	—	—	210,252	217,254
Grand total				265,149	298,340

〈Water Withdrawal by Source〉

(Unit: thousand ㎥)

	FYE 3/2018	FYE 3/2019	FYE 3/2020	FYE 3/2021
Surface water from rivers, lakes, natural ponds	34,216	34,395	240,094	281,997
Underground/wells	7,706	6,917	9,471	10,459
Used quarry water collected in the quarry	0	0	0	0
Municipal potable water	1,113	5,683	5,767	5,073
External water discharge	7,418	8,070	9,566	237
Harvested rainwater	2	0	0	0
Sea water, water extracted from the Sea or the Ocean	73	193	231	575
Total	50,529	55,256	265,130	298,340

- From FYE 3/2020, 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 detail 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 amount of water withdrawn by the companies was 23,957 thousand ㎥.

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 Data Survey,” we survey the amount of water withdrawal from the relevant areas.
19 operation sites that have been identified by the “Sustainability Data Survey” with aggregated data as of the end of March 2021, operate in the watershed areas of Gulf Coast of the United States, Mississippi - Missouri, RÃo Grande - Bravo, RÃo Lerma, Saskatchewan - Nelson, Columbia and Northwestern United States with relatively high water stress. There is a total water withdrawal of 68 thousand ㎥ in these regions, and we are aware that this is equivalent to 0.1% of 81,086 thousand ㎥, 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 waste water, regulations, or assessment of nearby regions.)

Water Discharge

(Unit: thousand ㎥)

	FYE 3/2018	FYE 3/2019	FYE 3/2020	FYE 3/2021
Marubeni Corporation	4	4	5	396
Marubeni Corporation's consolidated subsidiaries	44,936	38,818	47,883	68,043
Total	44,940	38,822	47,888	68,439
Mibugawa Power Company	—	—	210,252	217,254
Grand total	44,940	38,822	258,140	285,693

〈Water Discharge by Destination〉

(Unit: thousand ㎥)

	FYE 3/2018	FYE 3/2019	FYE 3/2020	FYE 3/2021
Ocean	10,983	13,445	12,643	11,321
Surface water	33,070	24,590	240,738	268,138
Underground/wells	3	4	3,790	3,838
Off-site water treatment	884	783	969	1,967
Others	0	0	0	430
Total	44,940	38,822	258,140	285,693

- The quality of discharged water is appropriately managed based on the laws and regulations of each country and region.
- From FYE 3/2020, 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 detail of the company.
- In FYE 3/2021, the amount of water discharge includes 26,077 thousand ㎥ of wastewater from sewage treatment projects.

Water Recycling Rate

(Unit: thousand ㎥)

	FYE 3/2019	FYE 3/2020	FYE 3/2021
Water withdrawal	50,529	54,878	81,086
Recycled amount	16,120	18,008	42,028
Recycling Rate	32%	33%	52%

・The scope of the water recycling rate includes Tokyo Head Office, domestic 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 the year ended March 31, 2018, the Marubeni Group was found to have one violation related to the amount of water discharge in Queensland, Australia, and was fined 12,190 Australian dollars by the Department of Environment and Heritage Protection.
This infraction occurred when water in excess of the permissible amount was released into an adjacent river from a water storage dam on a site related to the Marubeni Group because of record downpours associated with a cyclone.
In addition to constructing a run-off channel and expanding the capacity of the dam, our response included completing changes to environmental approvals and permits related to increasing the amount of water discharge with the department. The results of a water quality test showed that there was no harm to the environment.
In the period from the fiscal year ended March 31, 2019 to the fiscal year ended March 31, 2021, there were no violations of laws or regulations concerning water withdrawal and water discharge.

Water Consumption Intensity in Pulp and Paper Production

(Unit: ㎥/ton)

	Total of Koa Kogyo Co., Ltd., Fukuyama Paper Co., Ltd. and PT. Tanjungenim Lestari Pulp and Paper
FYE 3/2019	35.8
FYE 3/2020	37.9
FYE 3/2021	37.0

* Koa Kogyo Co., Ltd., Fukuyama Paper Co., Ltd. and PT. Tanjungenim Lestari Pulp and Paper are Marubeni's subsidiaries.

Water Consumption Intensity in Processed Seafood Products

(Unit: ㎥/ton)

	Maruichi Suisan Co., Ltd.
FYE 3/2019	35.6
FYE 3/2020	34.6
FYE 3/2021	34.9

* Maruichi Suisan Co., Ltd. is Marubeni's subsidiary.

Costs related to Water Management

Costs for water management in FYE 3/2021 are as folllows:

・Costs associated with water-related risks: 4,018 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: 2.8 milllion yen.

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

【The boundary of the environmental data】

・Marubeni Corporation's principal offices
Until FYE 3/2019, we covered six main branches (Tokyo Head Office, Hokkaido Branch, Chubu Branch, Osaka Branch, Kyushu Branch, and Shizuoka Branch), but from FYE 3/2020, we covered five main Branches (Tokyo Head Office, Hokkaido Branch, Chubu Branch, Osaka Branch, and Kyushu Branch).

・Consolidated subsidiaries
The subsidiaries that are designated to be liquidated or sold are excluded.
From FYE 3/2019, grain collection and exporting company based in the northern United States is included.
From FYE 3/2020, GHG emissions, energy consumption, and water withdrawal figures and from FYE 3/2021, water discharge figures include agricultural material sales company based in the southeastern United States (waste generated does not include it).

Environment

Environmental Data

Climate Change

Greenhouse Gas Emissions

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

〈Scope 1 & 2 Greenhouse Gas Emissions〉

(Unit: metric ton CO_2e)

		FYE 3/2017	FYE 3/2018	FYE 3/2019	FYE 3/2020	FYE 3/2021
Scope 1	Marubeni Corporation's principal offices	41	4	4	4	12
	Marubeni Corporation's other offices + consolidated subsidiaries	626,237	682,402	726,704	773,194	797,963
	Sub Total	626,278	682,406	726,708	773,198	797,975 (Including non-energy related GHG emission[*1]) (683,025 (Excepting for non-energy related GHG emission[*1]))
Scope 2	Marubeni Corporation's principal offices	3,425	2,457	2,439	2,307	2,146
	Marubeni Corporation's other offices + consolidated subsidiaries	277,706	274,413	305,776	308,193	280,025
	Sub Total	281,131	276,870	308,215	310,500	282,171
Grand Total		907,409	959,276	1,034,922	1,083,698	1,080,146 (Including non-energy related GHG emission[*1]) (965,196 (Excepting for non-energy related GHG emission[*1]))

- CO_2 emission factors for fuels and steam
  CO_2 emission factors stipulated by the Act on Promotion of Global Warming Countermeasures are used.
- CO_2 emission factors for electricity
  Emission factors for each electric power provider released by the Ministry of the Environment are used for Marubeni Corporation. Until FYE 3/2019, fundamental emission factors (actual emission factors) are used, from FYE 3/2020, adjusted emission factors are used. Alternative emission factor stipulated by Act on Promotion of Global Warming Countermeasures was replaced by Emission factors (adjusted emission factors) for each electric power provider for the domestic consolidated subsidiaries from FYE 3/2021. The impact on emissions due to the change in emission factors is a decrease of 7,627 metric ton CO_2.
  Country-specific emission factors (CO_2 emissions per kWh from electricity generation) published by International Energy Agency are used for the international consolidated subsidiaries. Electricity derived from renewable energy is excluded from calculation of Scope 2 greenhouse gas emissions since FYE 3/2021.
- Emission factors of non-energy related GHG
  Emission factors stipulated by the Act on Promotion of Global Warming Countermeasures are used.
- Non-energy related GHG emission before FYE 3/2020 is not included in GHG emissions.
  For FYE 3/2021, non-energy related GHG emission is included in GHG emissions, but the GHG emissions other than non-energy related GHG emission are disclosed in the sub total of Scope 1 and grand total values.

〈Scope 1 Greenhouse Gas Emissions (Components of non-energy related GHG emission)〉

(Unit: metric ton CO_2e)

		FYE 3/2021
Total amount		114,950
Components	Carbon dioxide (CO_2)	5,203
	Methane (CH_4)	72,081
	Dinitrogen monoxide (N_2O)	36,602
	Hydrofluorocarbons (HFCs)	1,064
	Perfluorocarbons (PFCs)	0
	Sulphur hexafluoride (SF_6)	0
	Nitrogen trifluoride (NF_3)	0

*1 Non-energy related GHG emission cover carbon dioxide from the use of dry ice, fuel use in facilities and machinery used for fuel combustion, livestock feeding (fermentation in the digestive tract of livestock), livestock waste management, waste incineration or use in the manufacture of products, methane and dinitrogen monoxide from the use of waste fuels, hydrofluorocarbons in the recovery and encapsulation of HFCs in the maintenance of commercial refrigeration and air conditioning equipment, and sulfur hexafluoride in the use of electrical machinery and equipment such as transformers. There are no emissions of perfluorocarbons and nitrogen trifluoride. For sulfur hexafluoride, there are no companies obliged to report based on Act on Promotion of Global Warming Countermeasures.

〈Scope 3 Greenhouse Gas Emissions〉

In recent years, companies are required to further disclose information related to climate change and resource issues, toward creating a sustainable society. In calculating greenhouse gas (GHG) emissions that have significant effects on climate change, in addition to Scope 1 (direct emissions) and Scope 2 (energy-originated indirect emission), more and more companies are calculating and reporting GHG emissions for the overall corporate activities (Scope 3) such as resource procurement, production, logistics, sales, and disposal, as well as capital goods, business travel, and commuting. 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. The Scope 3 data is also submitted to the Carbon Disclosure Project (CDP) climate change questionnaire.

› Corporate Value Chain (Scope 3) for FYE 3/2021 [158KB]

(Unit: metric ton CO_2)

		FYE 3/2020	FYE 3/2021
Scope 3 CO_2 emissions (Category 15: Investment)		approx. 26 million	approx. 25 million
Breakdown	Power generation	approx. 22 million	approx. 21 million
	Resource projects	approx. 3 million	approx. 3 million
	Other businesses	approx. 1 million	approx. 1 million

Energy and Electricity Consumption

<Click here to view Tokyo Head Office and Osaka Branch's target to be achieved by FYE 3/2021.>
<Click here to view carbon neutral at all Marubeni Corporation's domestic business locations.>

	FYE 3/2017	FYE 3/2018	FYE 3/2019	FYE 3/2020	FYE 3/2021
Electricity consumption of Marubeni Corporation's principal offices (Unit: MWh)	7,239	5,021	5,180	5,227	4,629
Energy consumption of Marubeni Corporation and consolidated subsidiaries (Unit: TJ)	12,740	13,532	14,384	15,303	13,771

・3.6 GJ/MWh is used for heat value per unit for electricity.
・For fuels, the heat values stipulated by the Act on Promotion of Global Warming Countermeasures are used.
・Biomass energy is not included.

Environmental Impact of Transport

	FYE 3/2017	FYE 3/2018	FYE 3/2019	FYE 3/2020	FYE 3/2021
Amount transported (Thousand ton-km)	565,792	472,290	508,498	484,678	364,538
CO_2 emissions (metric ton CO_2)	27,938	21,445	22,705	22,617	17,516
Intensity (kl crude oil eq per thousand ton-km)	0.0183	0.0168	0.0165	0.0173	0.0178

・From FYE 3/2017 to FYE 3/2021
This table shows the impacts associated with the outsourced shipment of goods consigned by Marubeni Corporation.

Costs Associated with Climate Change

(Unit: thousands of yen)

Data	Contents	FYE 3/2022*2
Cost of climate change risk aversion	Emergency power generation and flood countermeasures due to extreme weather conditions	5,732
Research and development expenses for climate change risk aversion	Research and development expenses related to forest conservation, etc.	2,830

*2 Actual results as of March 11, 2022

Sustainable Forestry

Performance Data of Forest Certification Acquisition

The Marubeni Group (hereinafter referred to as “we”) 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 to consolidated net sales of the Forest Products Division

Item	2018	2019	2020
Total of FSC*3, PEFC*4	33%	39%	39%

*3 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.
*4 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.

Water Management

Water Withdrawal

＜Click here to view Water Management.＞
＜Click here to view Tokyo Head Office's target to be achieved by FYE 3/2021.＞

(Unit: thousand ㎥)

	FYE 3/2017	FYE 3/2018	FYE 3/2019	FYE 3/2020	FYE 3/2021
Marubeni Corporation	40	4	4	5	396
Marubeni Corporation's consolidated subsidiaries	50,985	50,525	55,251	54,892	80,690
Total	51,025	50,529	55,256	54,897	81,086
Mibugawa Power Company	—	—	—	210,252	217,254
Grand total				265,149	298,340

〈Water Withdrawal by Source〉

(Unit: thousand ㎥)

	FYE 3/2018	FYE 3/2019	FYE 3/2020	FYE 3/2021
Surface water from rivers, lakes, natural ponds	34,216	34,395	240,094	281,997
Underground/wells	7,706	6,917	9,471	10,459
Used quarry water collected in the quarry	0	0	0	0
Municipal potable water	1,113	5,683	5,767	5,073
External water discharge	7,418	8,070	9,566	237
Harvested rainwater	2	0	0	0
Sea water, water extracted from the Sea or the Ocean	73	193	231	575
Total	50,529	55,256	265,130	298,340

- From FYE 3/2020, 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 detail 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 amount of water withdrawn by the companies was 23,957 thousand ㎥.

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 Data Survey,” we survey the amount of water withdrawal from the relevant areas.
19 operation sites that have been identified by the “Sustainability Data Survey” with aggregated data as of the end of March 2021, operate in the watershed areas of Gulf Coast of the United States, Mississippi - Missouri, RÃo Grande - Bravo, RÃo Lerma, Saskatchewan - Nelson, Columbia and Northwestern United States with relatively high water stress. There is a total water withdrawal of 68 thousand ㎥ in these regions, and we are aware that this is equivalent to 0.1% of 81,086 thousand ㎥, 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 waste water, regulations, or assessment of nearby regions.)

Water Discharge

(Unit: thousand ㎥)

	FYE 3/2018	FYE 3/2019	FYE 3/2020	FYE 3/2021
Marubeni Corporation	4	4	5	396
Marubeni Corporation's consolidated subsidiaries	44,936	38,818	47,883	68,043
Total	44,940	38,822	47,888	68,439
Mibugawa Power Company	—	—	210,252	217,254
Grand total	44,940	38,822	258,140	285,693

〈Water Discharge by Destination〉

(Unit: thousand ㎥)

	FYE 3/2018	FYE 3/2019	FYE 3/2020	FYE 3/2021
Ocean	10,983	13,445	12,643	11,321
Surface water	33,070	24,590	240,738	268,138
Underground/wells	3	4	3,790	3,838
Off-site water treatment	884	783	969	1,967
Others	0	0	0	430
Total	44,940	38,822	258,140	285,693

- The quality of discharged water is appropriately managed based on the laws and regulations of each country and region.
- From FYE 3/2020, 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 detail of the company.
- In FYE 3/2021, the amount of water discharge includes 26,077 thousand ㎥ of wastewater from sewage treatment projects.

Water Recycling Rate

(Unit: thousand ㎥)

	FYE 3/2019	FYE 3/2020	FYE 3/2021
Water withdrawal	50,529	54,878	81,086
Recycled amount	16,120	18,008	42,028
Recycling Rate	32%	33%	52%

- The scope of the water recycling rate includes Tokyo Head Office, domestic 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 the year ended March 31, 2018, the Marubeni Group was found to have one violation related to the amount of water discharge in Queensland, Australia, and was fined 12,190 Australian dollars by the Department of Environment and Heritage Protection.
This infraction occurred when water in excess of the permissible amount was released into an adjacent river from a water storage dam on a site related to the Marubeni Group because of record downpours associated with a cyclone.
In addition to constructing a run-off channel and expanding the capacity of the dam, our response included completing changes to environmental approvals and permits related to increasing the amount of water discharge with the department. The results of a water quality test showed that there was no harm to the environment.
In the period from the fiscal year ended March 31, 2019 to the fiscal year ended March 31, 2021, there were no violations of laws or regulations concerning water withdrawal and water discharge.

Water Consumption Intensity in Pulp and Paper Production

(Unit: m³/ton)

	Total of Koa Kogyo Co., Ltd., Fukuyama Paper Co., Ltd. and PT. Tanjungenim Lestari Pulp and Paper
FYE 3/2019	35.8
FYE 3/2020	37.9
FYE 3/2021	37.0

* Koa Kogyo Co., Ltd., Fukuyama Paper Co., Ltd. and PT. Tanjungenim Lestari Pulp and Paper are Marubeni's subsidiaries.

Water Consumption Intensity in Processed Seafood Products

(Unit: m³/ton)

	Maruichi Suisan Co., Ltd.
FYE 3/2019	35.6
FYE 3/2020	34.6
FYE 3/2021	34.9

* Maruichi Suisan Co., Ltd. is Marubeni's subsidiary.

Costs related to Water Management

Costs for water management in FYE 3/2021 are as folllows:
・Costs associated with water-related risks: 4,018 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: 2.8 milllion 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/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/Corrective Actions

	FYE 3/2021
Number of reported cases	4
Number of corrective actions	4 (of which 0 include fines/penalties)
Total fines	JPY 0 million

Environmental Protection Costs

Environmental protection costs for Marubeni's five principal offices (Tokyo Head Office and Hokkaido, Chubu, Osaka and Kyushu branches) for FYE 3/2021 are shown below.

Environmental Accounting for FYE 3/2021*5 (thousands of yen)	
Business area cost	2,246
Upstream/Downstream cost	6,339
Administration cost	287,559
R&D cost	0
Social activity cost	7,314
Environmental remediation cost	8,800
Total	312,258

*5 Aggregate data based on the Ministry of the Environment's *Environmental Accounting Guidelines 2005*

Waste Generated

<Click here to view Tokyo Head Office's target to be achieved by FYE 3/2021.>

(Unit: metric ton)

	FYE 3/2017	FYE 3/2018	FYE 3/2019	FYE 3/2020	FYE 3/2021
Marubeni Corporation's principal offices	432	6	8	39	4
Marubeni Corporation's other offices + consolidated subsidiaries	108,107	99,526	115,759	148,154	119,015
Total	108,539	99,531	115,767	148,192	119,019

・Materials with resale or reuse value are not included.

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	0
FYE 3/2020	0
FYE 3/2019	0
FYE 3/2018	0
FYE 3/2017	8.6

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

Target and Results for Serious Environmental Incidents* including Pollution

(Unit: case)

	FYE 3/2019	FYE 3/2020	FYE 3/2021	Target
Serious Environmental Incidents	0	0	0	0

* Includes Marubeni Corporation and its consolidated subsidiaries.

Marubeni Corporation's Emission Volumes

(Unit: metric ton)

	FYE 3/2019	FYE 3/2020	FYE 3/2021
NOx	0	0	0
SOx	0	0	0
VOC	0	0	0

* Data obtained on emission volumes of major consolidated subsidiaries is as follows: NOx: 901 metric tons, SOx: 955 metric tons, VOC: 30 metric tons

Paper Consumption (A4 paper sheet equivalent)

(Unit: thousand sheets)

	FYE 3/2017	FYE 3/2018	FYE 3/2019	FYE 3/2020	FYE 3/2021
Paper Consumption (A4 paper sheet equivalent) of Marubeni Corporation's principal offices	30,841	27,896	25,215	22,210	10,344

Recycling Rate

<Click here to view Tokyo Head Office's target to be achieved by FYE 3/2021.>

(Unit: %)

	FYE 3/2017	FYE 3/2018	FYE 3/2019	FYE 3/2020	FYE 3/2021
Recycling Rate of Marubeni Corporation's principal offices	88.7	89.8	83.6	41.8	61.7

・FYE 3/2020 includes an increase in waste due to large-scale layout work at the Osaka Branch.

Green Product Procurement Rate

(Unit: %)

	FYE 3/2017	FYE 3/2018	FYE 3/2019	FYE 3/2020	FYE 3/2021
Green Product Procurement Rate of Marubeni Corporation's principal offices	87.6	86.8	90.6	91.2	83.1

【The boundary of the environmental data】

・Marubeni Corporation’s principal offices
Until FYE 3/2019, we covered six main branches (Tokyo Head Office, Hokkaido Branch, Chubu Branch, Osaka Branch, Kyushu Branch, and Shizuoka Branch), but from FYE 3/2020, we covered five main Branches (Tokyo Head Office, Hokkaido Branch, Chubu Branch, Osaka Branch, and Kyushu Branch).

・Consolidated subsidiaries
The subsidiaries that are designated to be liquidated or sold are excluded.
From FYE 3/2019, grain collection and exporting company based in the northern United States is included.
From FYE 3/2020, GHG emissions, energy consumption, and water withdrawal figures and from FYE 3/2021, water discharge figures include agricultural material sales company based in the southeastern United States (waste generated does not include it).

Note: From FYE 3/2018, kerosene, diesel oil and gasoline are included. In FYE 3/2018, CO_2 emissions associated with consumption of kerosene, diesel and gasoline was 25 thousand metric tons of CO_2.

Click here for more details on environmental data for FYE 3/2021 that we have disclosed on our sustainability website, of which are assured by a third party.