


ENVIRONMENTAL

1. CLIMATE CHANGE

Policy

The Marubeni Group has identified climate change as one of its four categories of Environmental and Social Materiality, and will proactively contribute to climate change countermeasures through its businesses.

 Climate Change, see page 8.

Action Plans and Targets

Energy Conservation, Natural Resource Conservation, and Waste Reduction Activities

In accordance with the policies of the Commitment to a Low Carbon Society proposed by the Japan Business Federation (“Keidanren”), Marubeni is taking action on climate change and has set targets for reducing energy usage (electricity and

gas) at the Tokyo Head Office and the Osaka Branch in FYE 3/2021 by 10.5% compared to FYE 3/2010, and is moving forward with the introduction of energy-efficient equipment.

Numerical targets and results for energy conservation, natural resource conservation and waste reduction efforts for FYE 3/2018 are shown below.

	Numerical Targets for FYE 3/2021	Results in FYE 3/2018
(1) Energy Consumption at Tokyo Head Office and Osaka Branch	Reduce energy usage (electricity and gas) by 10.5% compared to FYE 3/2010	72.5% decrease from FYE 3/2010
(2) Waste Generation at Tokyo Head Office	Reduce waste generation by 30% compared to FYE 3/2011	98.5% decrease from FYE 3/2011
(3) Waste Recycling Rate at Tokyo Head Office	Achieve a waste recycling rate of 90% or more	22.1%
(4) Water Consumption at Tokyo Head Office	Reduce water consumption by 3% compared to FYE 3/2011	95.4% decrease from FYE 3/2011

Note: After setting target values, the 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 FYE 3/2018 until reconstruction is completed in 2020), 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.

 For further information on energy conservation, natural resource conservation and waste reduction activities, please refer to Marubeni's website: <https://www.marubeni.com/en/sustainability/environment/eco/>

Framework

Implementation System

The Sustainability Management Committee plays the main role in our approach related to climate change by making action plans and promoting various measures.

The Committee is chaired by the Chief Financial Officer (currently Senior Managing Executive Officer, Member of the Board). Committee members consist of advisors including External Directors and External Audit & Supervisory Board Members, in addition to representatives from the Corporate Staff Group and Business Divisions.

Committee meetings include extensive discussion of our company-wide commitment, outcomes, and how we approach businesses contributing to climate change countermeasures and activities contributing to local communities and residents through our businesses.

These initiatives are reported to the Board of Directors on a regular basis, and are ultimately managed under the supervision of the Board of Directors.

Cooperation with External Organizations

Cooperation and Collaboration with Various Organizations

Marubeni is committed to proactively and appropriately engaging in diverse climate change countermeasures through cooperation and collaboration with various stakeholders, regardless of the level of influence of the stakeholder or affiliated industry group.

Industry Groups


As a member of the Japan Foreign Trade Council (JFTC), Marubeni supports the Commitment to a Low-Carbon Society proposed by Keidanren, and takes part in the working groups and public meetings on climate change held by Keidanren and JFTC.

Governments and Government Offices

Marubeni actively participates in subcommittees and workshops on climate change held by the Ministry of Economy, Trade and Industry (METI) and the Ministry of the Environment. In FYE 3/2019, we became a working-group member of the METI Study Group on Implementing TCFD Recommendations, and have discussions with other group-member companies on the best approach to disclosure of the financial impact of climate change.

Other

The Marubeni Group supports the activities of the international environmental protection group, World Wide Fund for Nature. Marubeni participates in certification systems in areas such as wood products, seafood, and vegetable oil. Additionally, Marubeni subsidiary Mibugawa Electric Power Co., Ltd. takes part in the Japan Climate Initiative and promotes renewable energy projects with the aim of creating a society that leaves a minimal carbon footprint.

 For further information on cooperation and collaboration with various organizations, please refer to Marubeni's website: <https://www.marubeni.com/en/sustainability/environment/approach/>

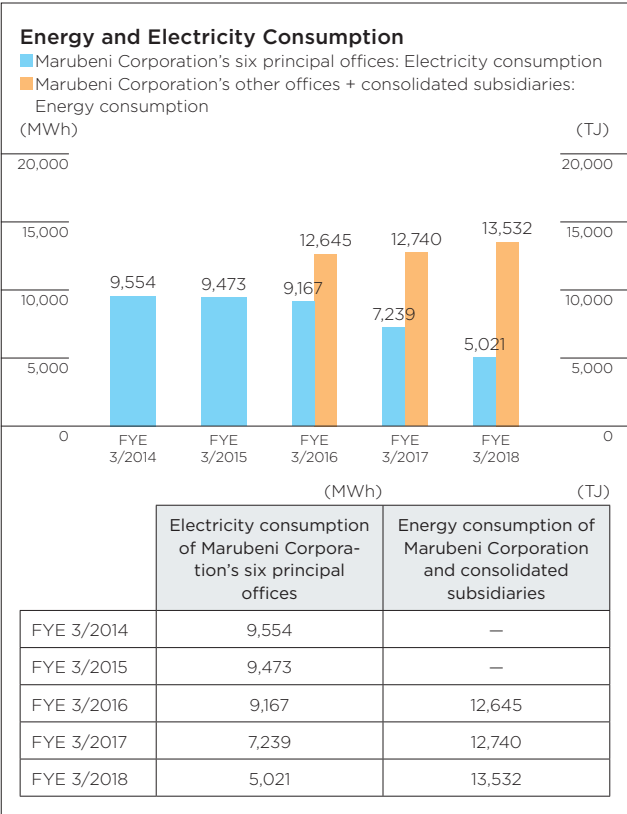
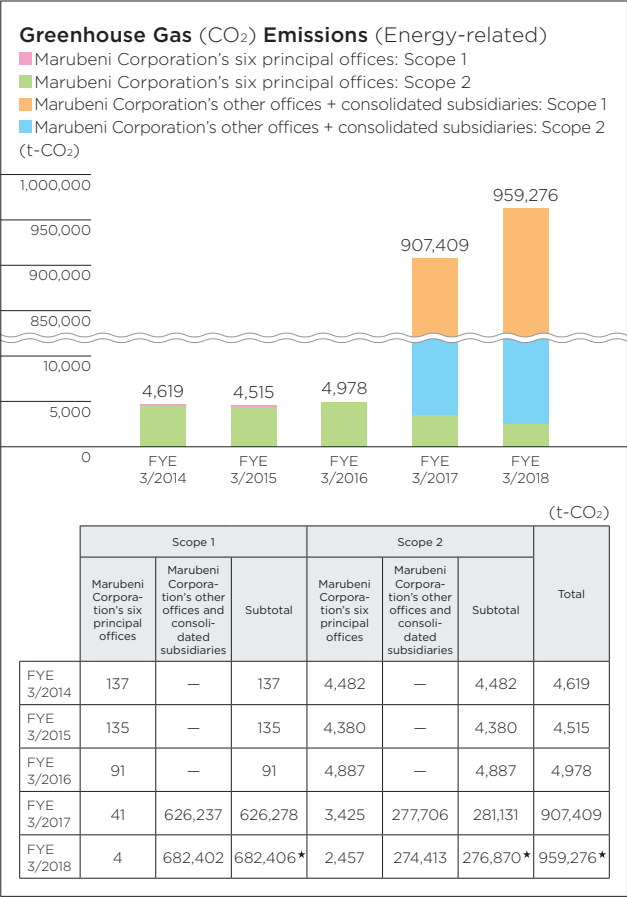
Related Data

The charts below show the results of our efforts over the past five years for energy conservation, natural resource conservation and waste reduction.

The environmental data marked with ★ are assured by KPMG AZSA Sustainability Co., Ltd., through an independent assurance engagement in accordance with the International Standard on Assurance Engagements (ISAE) 3000, “Assurance Engagements Other than Audits or Reviews of Historical Financial Information” (revised December 2013), and ISAE 3410, “Assurance Engagements on Greenhouse Gas Statements” (June 2012).




For KPMG AZSA Sustainability's Independent Assurance Report, please refer to Marubeni's website:  
[https://www.marubeni.com/en/sustainability/environment/env\\_data/pdf/KPMG2018\\_EN.pdf](https://www.marubeni.com/en/sustainability/environment/env_data/pdf/KPMG2018_EN.pdf)



Activities for Tracking and Managing the Supply Chain

In recent years, companies have been required to further disclose information related to climate change and resource issues, in the interest of building 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 (indirect emissions from the use of purchased energy), more and more companies are taking account of and reporting GHG emissions for their overall corporate activities (Scope 3) such as resource procurement, production, logistics, sales, and disposal, as well as capital goods, business travel, and commuting. The Marubeni Group 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, which are the international standard. The Scope 3 data is also submitted in the Carbon Disclosure Project (CDP) climate change questionnaire.



For further information on Scope 3, please refer to Marubeni's website:  
[https://www.marubeni.com/en/sustainability/environment/env\\_data/pdf/Scope3\\_201803.pdf](https://www.marubeni.com/en/sustainability/environment/env_data/pdf/Scope3_201803.pdf)

Initiatives Related to TCFD Recommendations

Recognizing the importance of climate-related financial disclosure, the Marubeni Group has affirmed its commitment to the TCFD recommendations, and is working to understand and enhance disclosure of the financial impact of the risks and opportunities arising from climate change.

In addition, the Marubeni Group is conducting scenario analysis to analyze the impact that climate change is likely to have on its businesses and finances. The Marubeni Group will analyze the risks, opportunities and impacts on its businesses from climate change based on a Current Policies Scenario and the 2.0°C Scenario, and will use the results in considering business plans and strategies.

Initiatives

• In feed ingredients procurement in the Food Group, taking into account the possibility of increases in product prices and transportation costs due to a decrease in production volume in the agriculture and livestock industries resulting from climate change, the Marubeni Group is actively responding to the risks that accompany climate change by viewing them as opportunities. This response includes geographic diversification of suppliers and customers, cultivation of new production regions, research and development of alternative and new products, and acquisition of new partners.

• In the power generation business of the Power Business & Plant Group, in September 2018 Marubeni released the Notification Regarding Business Policies Pertaining to Sustainability (In Relation to Coal-Fired Power Generation Business and Renewable Energy Generation Business) to promote reduction of GHG emissions from its power generation portfolio, based on transition risks such as changes in the energy mix of each country under the 2°C Scenario, tightening of regulations, changes in systems, and changes in stakeholder awareness. On the other hand, the increase in renewable energy projects, upgrades and efficiency improvements of existing power plants, the increase in energy storage and power system stabilization projects, and the increase in distributed power sources will present business opportunities, and we will therefore take a more active approach in the area of clean energy generation. Furthermore, Marubeni recognizes the financial impact from changes such as insurance premium increases as a transition risk based on the Current Policies Scenario, and will use it for reference when formulating medium- and long-term strategies.

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 submits plans to the Tokyo Metropolitan Government describing its measures to reduce the CO<sub>2</sub> 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.

The emissions volume in FYE 3/2016 was 4,422 t-CO<sub>2</sub>, a decrease of approximately 36% compared to the reference value.

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

The Tokyo Head Office was relocated in September 2016, and notification of the closure of a specified global warming countermeasure site was submitted to the Tokyo Metropolitan Government in October 2016.

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

Tama Center

Marubeni submits plans to the Tokyo Metropolitan Government describing its measures to reduce the CO<sub>2</sub> emissions volume of the Tama Center, a training center managed by the Tokyo Head Office, by approximately 15% from the reference value (average emissions from April 2005 to March 2008) during the five years from April 2015 to March 2020.

The emissions volume in FYE 3/2016 was 6,818 t-CO<sub>2</sub>, a decrease of approximately 47% 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

2. ENVIRONMENTAL MANAGEMENT SYSTEM (EMS)

Policy

The Marubeni Group Environmental Policy, which was established in 1998, was updated in January 2019 under the leadership of the Environment Committee to strengthen environmental considerations in the Marubeni Group's business operations.

**Marubeni Group Environmental Policy**  
Updated in January 2019

**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).

Framework

Environmental Assessment of Development Projects and Financing/Investment

Before launching a development project or financing or investing in a business, Marubeni assesses the project's conformity with environmental laws and regulations and the levels of possible adverse impact on the environment in the event of an accident or other emergency using the Environmental Evaluation Sheet. The complete evaluation sheet is used in making the final decision on whether the project should proceed.

Follow-up evaluation is also conducted for projects considered to have potential environmental risks as a result of the initial assessment. Follow-up is continued until all concerns have been dispelled. In FYE 3/2018, we assessed 45 projects with environmental risks, including projects for natural resources and energy development, real estate development and others.

We also conduct assessments such as regular survey visits that take into account business details, location, and the status of facilities, not only for potential new operations or projects, but also for our existing operations and projects. We try to grasp the environmental impact, and share information for improvement.

Number of Environmental Assessments in FYE 3/2018 by Risk Type

Atmospheric pollution	16
Water pollution	21
Soil pollution	14
Noise/Vibration	17
Offensive odor	3
Waste increase	7
Natural resource depletion	5
Global warming	5
Biodiversity	2
Others	0
Total	90

Note: The total is not equal to the aggregate of 45 environmental assessments conducted as some assessments identified no applicable risks, while others detected more than one risk.

Action Plans and Targets

Energy Conservation, Natural Resource Conservation and Waste Reduction Activities

In accordance with the policies of the Commitment to a Low Carbon Society proposed by Keidanren, Marubeni is taking action on climate change and has set targets for reducing energy usage (electricity and gas) at the Tokyo Head Office

and the Osaka Branch in FYE 3/2021 by 10.5% compared to FYE 3/2010, and is moving forward with the introduction of energy-efficient equipment.

Numerical targets and results for energy conservation, natural resource conservation and waste reduction efforts for FYE 3/2018 are shown below.

	Numerical Targets for FYE 3/2021	Results in FYE 3/2018
(1) Energy Consumption at Tokyo Head Office and Osaka Branch	Reduce energy usage (electricity and gas) by 10.5% compared to FYE 3/2010	72.5% decrease from FYE 3/2010
(2) Waste Generation at Tokyo Head Office	Reduce waste generation by 30% compared to FYE 3/2011	98.5% decrease from FYE 3/2011
(3) Waste Recycling Rate at Tokyo Head Office	Achieve a waste recycling rate of 90% or more	22.1%
(4) Water Consumption at Tokyo Head Office	Reduce water consumption by 3% compared to FYE 3/2011	95.4% decrease from FYE 3/2011

Note: After setting target values, the 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 FYE 3/2018 until reconstruction is completed in 2020), 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.

For further information on energy conservation, natural resource conservation and waste reduction activities, please refer to Marubeni's website: <https://www.marubeni.com/en/sustainability/environment/eco/>

Initiatives (Examples)

Marubeni Group’s Environmental Initiatives  
Establishment of Environmental Goals

At the beginning of each fiscal year, Marubeni identifies issues specific to each group regarding environmental risk management, Marubeni Group company administration, environmental business promotion, energy conservation, resource conservation, and other related matters using the Environmental Plan/Check Sheet. Marubeni then establishes environmental goals for each group and conducts related activities to achieve them.

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.

Auditing

Internal auditors perform annual environmental audits on Marubeni Corporation and subsidiaries with multi-site certification.

In addition, our environmental performance is subject to audits twice a year by Lloyd’s Register Quality Assurance Ltd. (LRQA), an ISO 14001 certification and registration organization.

In FYE 3/2018, the LRQA assessment found no significant issues in our EMS.

Compliance with Environmental Laws and Regulations

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

During FYE 3/2018, Marubeni conducted an assessment to determine whether its 102 departments and 106 Marubeni Group companies were in compliance with Japan’s Waste Management and Public Cleansing Act.

Marubeni also conducted an e-learning training program on issues related to the Waste Management and Public Cleansing Act for all executives and employees, including temporary employees. At the same time, external experts were invited to speak at seminars held on the same topic at the Tokyo Head Office and major domestic branches (Osaka, Nagoya, Hokkaido and Kyushu). In total, 579 Marubeni Group employees participated in the training program. We also conducted more practical and hands-on forms of training for respective groups.

As a result of these and other initiatives, there were no serious violations of environmental laws or regulations by the Marubeni Group in FYE 3/2018.

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 conceived in accordance with the Marubeni Group Environmental Policy. We also monitor ISO 14001 certification status, emergency response measures, and environmental management systems of Marubeni Group companies.

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

Operating Companies’ Environmental  
Performance Review

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.

Site Inspection at Marubeni Group Companies Yet to  
Acquire ISO 14001 Certification

Marubeni conducts on-site inspections of Marubeni Group companies in Japan that are engaged in activities that have a relatively high risk of significant environmental impact. By classifying Marubeni Group companies according to their potential environmental impact based on operational details and the condition of facilities, Marubeni determines which companies to inspect and how often. For these inspections, Marubeni personnel visit the plants and offices of the target companies together with auditors from LRQA, to inspect the sites, check systems designed to ensure compliance with environmental requirements, and confirm the companies’ environmental risk control status. During FYE 3/2018, 25 sites at 21 domestic and overseas companies were inspected. The on-site inspections identified no significant issues at any of the companies. Going forward, Marubeni will continue working to enhance its environmental management system across the Marubeni Group.

Specialty Controlled Industrial Waste Output

Marubeni Corporation monitors and reports its output of specialty controlled industrial waste defined in the Waste Management and Public Cleansing Act. This includes polychlorinated biphenyl (PCB) waste, etc., such as PCB contaminated items, and processed PCB, which we dispose of in accordance with the legal disposal period.

Specialty Controlled Industrial Waste Output (Tons)	
FYE 3/2016	0
FYE 3/2017	8.6
FYE 3/2018	0

Each of our domestic subsidiaries appropriately monitors and reports amounts of specialty controlled industrial waste in accordance with the Waste Management and Public Cleansing Act.

Environmental Management System

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.

Marubeni obtained ISO 14001 certification in 1998. Since then, one overseas subsidiary and other Marubeni Group companies have obtained certification as needed. As of March 31, 2018, 52 Marubeni Group companies (about 12%) have been certified.

The EMS utilizes a PDCA cycle to ensure ongoing improvement. The cycle includes planning, implementation and operation, inspection, management and review of environmental measures.



For further information on the environmental management system, please refer to Marubeni’s website:  
<https://www.marubeni.com/en/sustainability/environment/management/>


Marubeni Group Subsidiaries with  
Multi-site Certification

The Marubeni Group in this Policy includes Marubeni Corporation and the subsidiaries with multi-site certification listed below:

Marubeni Group Subsidiaries with  
Multi-site Certification

- Marubeni Corporation
- Yamaboshiya Co., Ltd.
- Marubeni Information Systems Co., Ltd.
- Marubeni Chemix Corporation
- Marubeni Plax Corporation
- Marubeni Paper Recycle Co., Ltd.
- Marubeni Pulp & Paper Co., Ltd.
- Marubeni Power Systems Corporation
- Marubeni Service Corporation

Note: We shall publish the list of Marubeni Group Subsidiaries with Multi-site Certification together with the Marubeni Group Environmental Policy at all times.

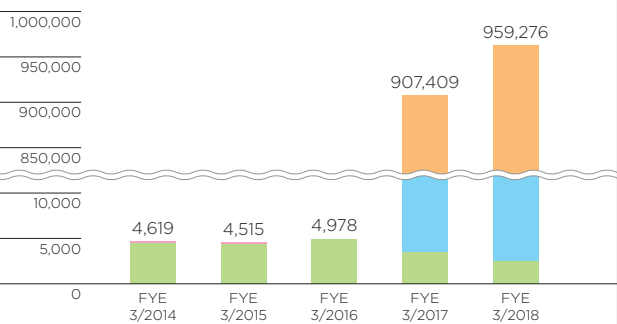


For the list of Marubeni Group Subsidiaries with Multi-site Certification, please refer to Marubeni’s website:  
<https://www.marubeni.com/en/sustainability/environment/management/>

Related Data

Greenhouse Gas (CO<sub>2</sub>) Emissions (Energy-related)

- Marubeni Corporation's six principal offices: Scope 1
- Marubeni Corporation's six principal offices: Scope 2
- Marubeni Corporation's other offices + consolidated subsidiaries: Scope 1
- Marubeni Corporation's other offices + consolidated subsidiaries: Scope 2 (t-CO<sub>2</sub>)

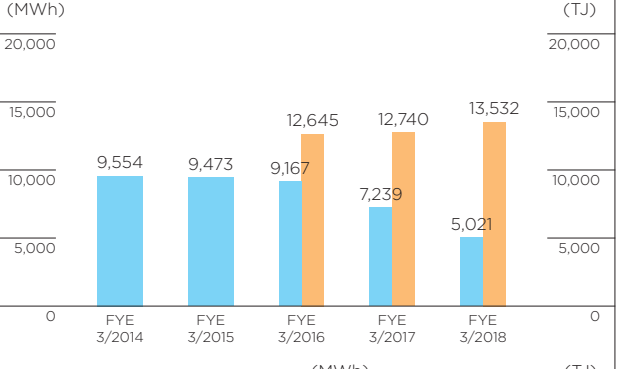


	Scope 1			Scope 2			Total
	Marubeni Corporation's six principal offices	Marubeni Corporation's other offices and consolidated subsidiaries	Subtotal	Marubeni Corporation's six principal offices	Marubeni Corporation's other offices and consolidated subsidiaries	Subtotal	
FYE 3/2014	137	—	137	4,482	—	4,482	4,619
FYE 3/2015	135	—	135	4,380	—	4,380	4,515
FYE 3/2016	91	—	91	4,887	—	4,887	4,978
FYE 3/2017	41	626,237	626,278	3,425	277,706	281,131	907,409
FYE 3/2018	4	682,402	682,406*	2,457	274,413	276,870*	959,276*

For further information on greenhouse gas (CO<sub>2</sub>) emissions (energy-related), please refer to Marubeni's website:  
[https://www.marubeni.com/en/sustainability/environment/env\\_data/](https://www.marubeni.com/en/sustainability/environment/env_data/)

Energy and Electricity Consumption

- Marubeni Corporation's six principal offices: Electricity consumption
- Marubeni Corporation's other offices + consolidated subsidiaries: Electricity consumption
- Marubeni Corporation's other offices + consolidated subsidiaries: Energy consumption

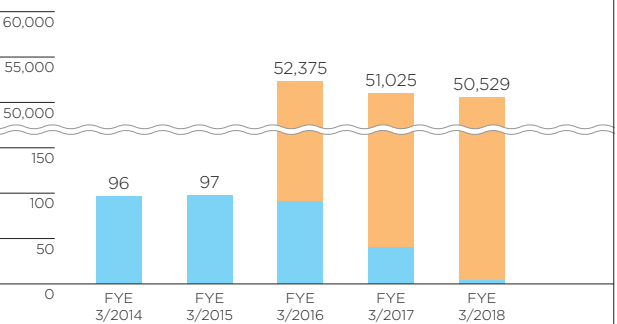


	Electricity consumption of Marubeni Corporation's six principal offices	Energy consumption of Marubeni Corporation and consolidated subsidiaries
FYE 3/2014	9,554	—
FYE 3/2015	9,473	—
FYE 3/2016	9,167	12,645
FYE 3/2017	7,239	12,740
FYE 3/2018	5,021	13,532

For further information on energy consumption, please refer to Marubeni's website:  
[https://www.marubeni.com/en/sustainability/environment/env\\_data/](https://www.marubeni.com/en/sustainability/environment/env_data/)

Water Consumption

- Marubeni Corporation's six principal offices
- Marubeni Corporation's other offices + consolidated subsidiaries

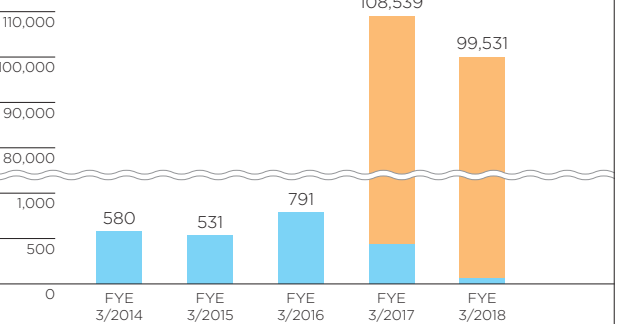


	Water consumption of Marubeni Corporation's six principal offices	Water consumption of Marubeni Corporation's other offices and consolidated subsidiaries	Total
FYE 3/2014	96	—	—
FYE 3/2015	97	—	—
FYE 3/2016	91	52,283	52,375
FYE 3/2017	40	50,985	51,025
FYE 3/2018	4	50,525	50,529*

For further information on water consumption, please refer to Marubeni's website:  
[https://www.marubeni.com/en/sustainability/environment/env\\_data/](https://www.marubeni.com/en/sustainability/environment/env_data/)

Waste Generated

- Marubeni Corporation's six principal offices
- Marubeni Corporation's other offices + consolidated subsidiaries



	Waste generated by Marubeni Corporation's six principal offices	Waste generated by Marubeni Corporation's other offices and consolidated subsidiaries	Total
FYE 3/2014	580	—	—
FYE 3/2015	531	—	—
FYE 3/2016	791	—	—
FYE 3/2017	432	108,107	108,539
FYE 3/2018	6	99,526	99,531

For further information on waste generated, please refer to Marubeni's website:  
[https://www.marubeni.com/en/sustainability/environment/env\\_data/](https://www.marubeni.com/en/sustainability/environment/env_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. These cases are shared across the company, and measures are taken to prevent recurrence.

Number of Reported Cases/Corrective Actions	
	FYE 3/2018
Number of reported cases	3
Number of corrective actions	3 (of which 3 include fines/penalties)
Total fines	¥9 million*

\* Converted to yen at the median rate for March 31, 2018

For further information on the number of reported cases/corrective actions, please refer to Marubeni's website:  
<https://www.marubeni.com/en/sustainability/environment/eco/>

Environmental Education and Training

Marubeni provides environmental education to its employees to help raise their awareness of relevant issues. In FYE 3/2018, the CSR/Global Environment e-learning Training Program was conducted for all executives and employees, including temporary employees. Approximately 3,000 executives and employees participated in the training program. Marubeni organizes 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. In addition, personnel who perform a leading role in the implementation and operation of the EMS must receive ISO Environmental Auditors Training, which is conducted by external training organizations.

Environmental Training Programs and Seminars in FYE 3/2018	
Training Program/Seminar	Number of Participants
ISO 14001 Internal Environmental Auditors Training Program (Tokyo, Osaka)	75
Seminar on the Waste Management and Public Cleansing Act (Tokyo, Osaka, Nagoya, Hokkaido, Kyushu)	579
CSR/Global Environment Training Program (e-learning)	2,729
Training on the Waste Management and Public Cleansing Act (e-learning)	3,089
Group-Specific Training on the Waste Management and Public Cleansing Act	175

Environmental Protection Costs

Environmental protection costs for Marubeni's six principal offices (Tokyo Head Office and Hokkaido, Chubu, Osaka, Kyushu and Shizuoka branches) for FYE 3/2018 are shown below.

Environmental Accounting for FYE 3/2018* (Thousands of yen)	
Business area cost	9,500
Upstream/Downstream cost	14,413
Administration cost	195,941
R&D cost	0
Social activity cost	14,558
Environmental remediation cost	0
Total	234,411

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

For further information on environmental protection costs, please refer to Marubeni's website:  
<https://www.marubeni.com/en/sustainability/environment/eco/>

3. BIODIVERSITY

Policy

As specified in the Marubeni Group Environmental Policy, the Marubeni Group always considers its impact on the environment, and 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.

Marubeni Group Environmental Policy, see page 23.

Forest Management Policy, see page 10.

Initiatives (Examples)

Renewable Energy Generation

With the entry into force of the Paris Agreement in 2016, and the planning that is under way toward international frameworks for global warming in 2020 and beyond, there has been a rise in interest in diversification of energy sources and renewable energy.

Renewable energy sources, including wind, geothermal, solar and hydroelectric power, emit virtually no carbon dioxide, a cause of global warming, and do not deplete natural resources. For these reasons, renewable energy can play a significant role in preservation of the global environment.

Biodiversity-friendly Micro-scale Hydro-power Projects

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 Electric Power Co., Ltd. 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” 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<sub>2</sub>, thereby offering benefits in terms of minimal impact on biodiversity and environmental preservation. Moreover, micro-scale hydro-power generation can help regions develop more independently as these technologies enable them to generate their own power using their own water resources.

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



Producing power locally: Mibugawa Electric Power



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

Micro-scale Hydro-power Project Facilities (As of October 2018)		
Facility	Location	Approved Output
Mibugawa Power Station No. 1	Ina City, Nagano Prefecture	23,100 kW
Mibugawa Power Station No. 2		10,800 kW
Mibugawa Power Station No. 3		260 kW
Mibugawa Power Station No. 4		480 kW
Tateshina Power Station	Chino City, Nagano Prefecture	260 kW
Tateshina Power Station No. 2		141 kW
Tateshina Power Station No. 3		93 kW
Tateshina Power Station No. 4		145 kW
Hokuto Nishizawa Power Station	Hokuto City, Yamanashi Prefecture	220 kW
Hokuto City Murayamarokkamuraseki Hydro-power Station		320 kW
Hokuto Kagoishi Power Station		230 kW
Hokuto Kurabara Power Station		200 kW
Shiroishi Power Station	Shiroishi City, Miyagi Prefecture	95 kW
Hananosato Power Station	Shimogo, Fukushima Prefecture	175 kW
Banyagawa Power Station		150 kW
Himenuma Power Station	Inawashiro, Fukushima Prefecture	160 kW
Minochigawa Power Station	Hiroshima City, Hiroshima Prefecture	180 kW
Sagotani Power Station		108 kW
Toyohira Power Station	Kitahiroshima, Hiroshima Prefecture	112 kW

Mibugawa Power Station has obtained Eco Action 21<sup>\*1</sup> 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 hydropower). These and other activities help educate people about renewable energy and pass on the region's traditional culture.

At the Hokuto City Murayamarokkamuraseki Waterfarm,<sup>\*2</sup> 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 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 30 micro-scale hydro-power facilities in Japan by 2020. Across Japan, we are actively working on generation of renewable energy that contributes to preservation of the local environment and biodiversity.

\*1. A system based on guidelines for environmental management systems and environmental reporting set by the Ministry of the Environment  
\*2. The four micro-scale hydro-power stations at Murayamarokkamuraseki in Hokuto City (Hokuto Nishizawa Power Station, Hokuto Murayamarokkamuraseki Hydropower Station, Hokuto Kagoishi Power Station and Hokuto Kurabara Power Station)

### Initiatives in Solar and Wind Power Generation

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

### Main Renewable Energy Projects in Japan (As of October 2018)

Facility	Location	Power Output (Marubeni's Share)	Type of Power Plant
Misaki Wind Power	Ikata Town, Ehime Prefecture	20 MW (49%)	Onshore wind power
Tokachi-Shimizu Power Plant	Shimizu Town, Hokkaido Prefecture	4 MW	Solar power
Tomakomai Mega-solar	Tomakomai City, Hokkaido Prefecture	7 MW	
Iwanuma-Rinku Mega-solar	Iwanuma City, Miyagi Prefecture	28 MW	
Sekikawa Village Mega-solar	Sekikawa Village, Niigata Prefecture	2 MW (50%)	
Iwaki Mega-solar	Iwaki City, Fukushima Prefecture	2 MW (50%)	
Tsuetsukitoge Mega-solar	Ina City, Nagano Prefecture	10 MW	
Inahiji Mega-solar	Ina City, Nagano Prefecture	1 MW	
Itako Solar Power Station	Itako City, Ibaraki Prefecture	2 MW (50%)	
Oyama Solar Power Station	Oyama Town, Shizuoka Prefecture	2 MW (50%)	
Kisosaki Mega-solar	Kisozaki Town, Kuwana City, Mie Prefecture, and Yatomi City, Aichi Prefecture	49 MW	

### 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.

The Marubeni Group<sup>\*3</sup> currently holds 140,000 hectares of tree plantations in Australia and Indonesia (total gross project area is 320,000 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.

\*3. 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 (PT-MHP) in Indonesia.



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)<sup>\*4</sup> and Chain of Custody certification<sup>\*5</sup> from the Forest Stewardship Council<sup>\*6</sup> (FSC), and Sustainable Forest Management certification<sup>\*4</sup> from Responsible Wood.<sup>\*7</sup>

PT-MHP, which operates the forest plantation business in Indonesia, has obtained Forest Management certification from the Indonesian Forestry Certification Corporation.<sup>\*8</sup> Wood harvested from the plantations of both WAPRES and PT-MHP is supplied as 100% certified wood as of March 31, 2018.

The Marubeni Group will continue to manage the supply chain<sup>\*9</sup> for manufacturing pulp and paper in a sustainable manner.

\*4. 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  
\*5. 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  
\*6. Forest Stewardship Council: An international organization that provides systems of forest certification  
\*7. Responsible Wood (Certification Scheme): A forest certification system in Australia endorsed and mutually recognized under the Programme for the Endorsement of Forest Certification (PEFC), an international forest certification system for the endorsement and mutual recognition of forest certification systems of various countries  
\*8. Indonesian Forestry Certification Corporation: A forest certification system in Indonesia endorsed and mutually recognized under the PEFC  
\*9. 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.



Commencement of RSPO SCCS Certified Fatty Acids Inventory Business

Marubeni will begin an inventory business selling RSPO\*10 SCCS certified (MB)\*11 palm oil-based fatty acids (hereinafter, “RSPO certified fatty acids”) in Japan, and build a stable supply chain capable of meeting demand for small amounts.

Environmental and social concerns have been raised over palm oil, a raw material used in fatty acids. These concerns include environmental degradation and biodiversity loss caused in the process of cultivation, as well as human rights violations of plantation workers and other adverse impacts on communities. Consequently, requests for the use of fatty acids produced from RSPO certified palm oil that is produced with due consideration for the environment are increasing worldwide, including Japan. Marubeni, which has been selling RSPO certified fatty acids directly to certain customers, will begin, for the first time in Japan, to maintain stocks of RSPO certified fatty acids to meet latent customer needs.

Marubeni launched its Sustainability Management Committee in April 2018 under the supervision of the president and CEO with the aim of strengthening the company’s ESG initiatives. Through the promotion of RSPO certified products, we will contribute to a sustainable society.

\*10. RSPO (Roundtable on Sustainable Palm Oil): The RSPO was established in 2004 by seven organizations, including the World Wildlife Federation (WWF), to meet the increasing need for environmental-friendly sustainable palm oil. It is a non-profit organization that promotes sustainable palm oil production and utilization, and is managed with the cooperation of stakeholders in the seven sectors of the palm oil industry: oil palm producers, processors or traders, consumer goods manufacturers, retailers, banks/investors, and environmental and social NGOs. Marubeni joined the RSPO as a member on February 22, 2015.

\*11. SCCS (Supply Chain Certificate System): The SCCS guarantees that palm oil products in the production and distribution process meet the specified conditions. The system has three certified supply chain models and one credit model. Marubeni achieved SG and MB certification on October 8, 2015.

SG (Segregation): The SG supply chain model assures that RSPO certified palm oil and its derivatives delivered to the end user come only from RSPO certified sources. It permits the mixing of RSPO certified palm oil from a variety of sources.

MB (Mass Balance): The MB supply chain model administratively monitors the trade of RSPO certified palm oil and its derivatives throughout the entire supply chain, as a driver for mainstream trade in sustainable palm oil.



2-0549-15-100-00 RSPO certification logo

RSPO (Roundtable on Sustainable Palm Oil): <https://www.rspo.org/>

Preservation of Biodiversity and Habitats Asian Waterbird Census

TeaM Energy Foundation, Inc. (TEFI) was established to handle the CSR activities of TeaM Energy Corporation (TeaM Energy), an independent power producer in the Philippines in which Marubeni owns a 50% stake. In cooperation with the Wild Bird Club of the Philippines and the Department of Environment and Natural Resources, TEFI has participated in the Asian Waterbird Census, an Asian aquatic bird population survey conducted by the international NGO Wetlands International, every year since 2010, and collects data on waterbirds within a 10-kilometer radius of the Pagbilao and Sual power 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 2017 survey, a total of 460 Philippine ducks and five brahmany kites were confirmed at the power plant sites and within a 10-kilometer radius.



Habitat survey

Afforestation Program

TEFI is carrying out projects to plant acacia, eucalyptus and other tree varieties at its Pagbilao and Sual power plants in partnership with neighboring communities as well as NGOs such as Siosio East Environment. The average survival rate of the saplings planted is 95%. To date, approximately 100 hectares at Sual and 150 hectares at Pagbilao have been planted and are being maintained.



Afforested area

Engagement to Reduce Loss of Biodiversity Forest Preservation Activities and Providing Livelihoods to Indigenous People

Since 2010, TEFI has been 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 conducts training and provides 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 provide livelihoods and improve living standards for 40 communities and over 2,000 local residents, and help to 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



Various products are produced, including tea and honey.

Collaboration with External Organizations

Results in FYE 3/2018

We promoted environment-friendly products by selling MSC/ASC certified products. (Certified products accounted for 22.5% of total marine products handled in FYE 3/2018.)



For further information on MSC/ASC certified products, please refer to Marubeni’s website: [https://www.marubeni.com/en/sustainability/group/action\\_plan/](https://www.marubeni.com/en/sustainability/group/action_plan/)

Contribution to Sustainable Fisheries

The Pacific bluefin tuna, which plays a key role as one of the top predators in the Pacific Ocean marine ecosystem, is an important fishery resource for Japan and other Pacific coastal countries. However, as a result of overfishing, Pacific bluefin tuna stocks have dropped to record-low levels, and the sustainability of the stocks is a concern.

Responding to this situation, the Marubeni Group, along with five Japanese companies involved in the distribution of marine products, released a joint statement in November 2016 pledging to support the conservation and sustainable use of Pacific bluefin tuna. This pledge was declared on a voluntary basis by the companies that make up the marine product supply chain under the leadership of WWF Japan.

The Marubeni Group has sought to contribute to sustainable fishing in ways such as promoting sales of products from certified fisheries, starting with MSC certified products. In honoring this pledge, the Marubeni Group will maintain its commitment to managing fish stocks in a sustainable manner.



For further information on our contribution to sustainable fisheries, please refer to Marubeni’s website: [https://www.marubeni.com/en/sustainability/supply\\_chain/social/](https://www.marubeni.com/en/sustainability/supply_chain/social/)



4. POLLUTION AND RESOURCES

Policy

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.

Action Plans and Targets



Energy Conservation, Natural Resource Conservation, and Waste Reduction Activities, see page 19.

Initiatives (Examples)

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 discharged 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<sub>2</sub> 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.



Koa Kogyo's environmental initiatives:  
<http://www.koa-kogyo.co.jp/environment/> (Japanese only)

Life Cycle Assessment

Within the Marubeni Group, life cycle assessment (LCA) is utilized in the cattle fattening business of Rangers Valley Cattle Station Pty. Ltd. (Rangers Valley), a consolidated subsidiary in Australia, to quantitatively analyze and assess social and environmental impact. Rangers Valley is pursuing efficient operations through research of the optimal feed and feeding and fattening methods, and is working to reduce social and environmental impact in this business by reflecting LCA analysis results in its business plans.

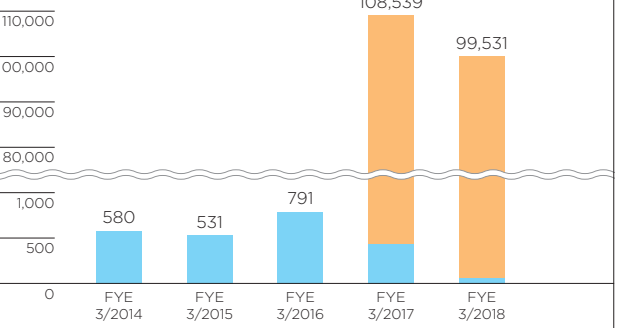


Rangers Valley's approach to the environment:  
<https://www.rangersvalley.com.au/environment/>

Related Data

Waste Generated

■ Marubeni Corporation's six principal offices  
■ Marubeni Corporation's other offices + consolidated subsidiaries  
(Tons)



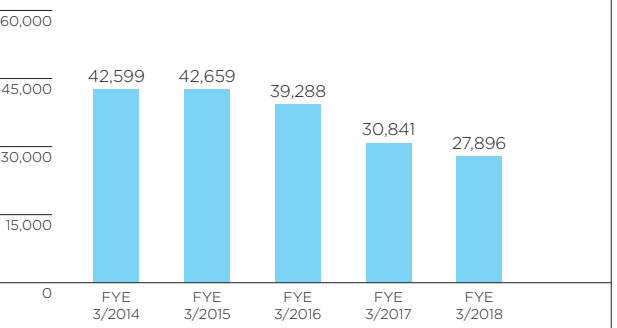
	Waste gener- ated by Marubeni Corporation's six principal offices	Waste gener- ated by Marubeni Corporation's other offices and consoli- dated subsidiaries	Total
FYE 3/2014	580	—	—
FYE 3/2015	531	—	—
FYE 3/2016	791	—	—
FYE 3/2017	432	108,107	108,539
FYE 3/2018	6	99,526	99,531



For further information on waste generated, please refer to Marubeni's website:  
[https://www.marubeni.com/en/sustainability/environment/env\\_data/](https://www.marubeni.com/en/sustainability/environment/env_data/)

Paper Consumption (A4 paper sheet equivalent)

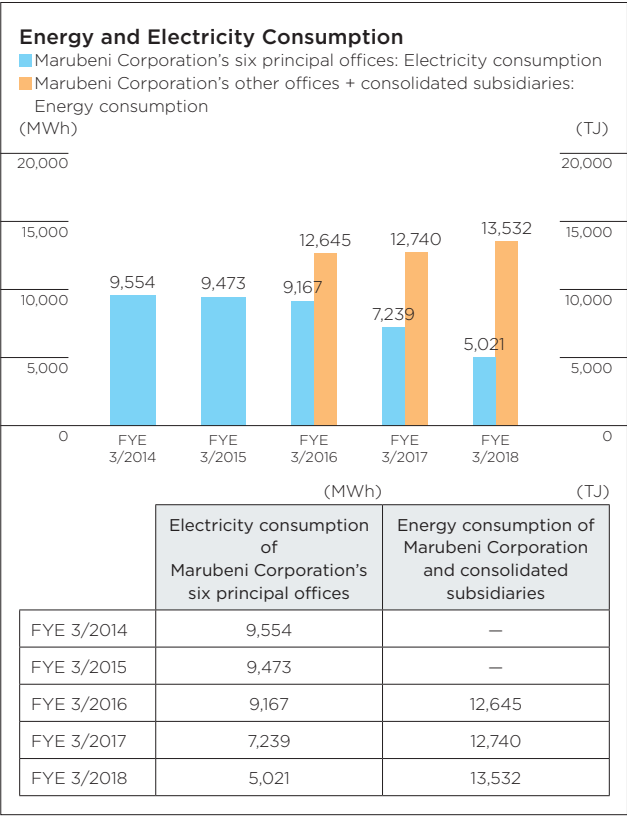
■ Paper Consumption (A4 paper sheet equivalent)  
(Thousand sheets)



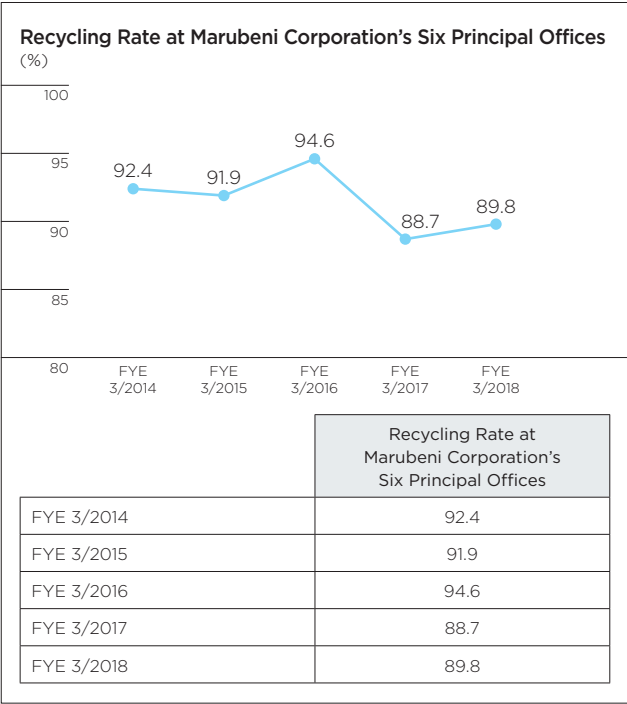
	Paper Consumption at Marubeni Corporation's Six Principal Offices (A4 paper sheet equivalent)
FYE 3/2014	42,599
FYE 3/2015	42,659
FYE 3/2016	39,288
FYE 3/2017	30,841
FYE 3/2018	27,896



For further information on paper consumption, please refer to Marubeni's website:  
[https://www.marubeni.com/en/sustainability/environment/env\\_data/](https://www.marubeni.com/en/sustainability/environment/env_data/)



For further information on energy consumption, please refer to Marubeni's website:  
[https://www.marubeni.com/en/sustainability/environment/env\\_data/](https://www.marubeni.com/en/sustainability/environment/env_data/)



**Specially Controlled Industrial Waste Output**

Marubeni Corporation monitors and reports its output of specially controlled industrial waste defined in the Waste Management and Public Cleansing Act. This includes polychlorinated biphenyl (PCB) waste, etc., such as PCB contaminated items, and processed PCB, which we dispose of in accordance with the legally prescribed disposal period.

Specially Controlled Industrial Waste Output (Tons)	
FYE 3/2016	0
FYE 3/2017	8.6
FYE 3/2018	0

Each of our domestic subsidiaries appropriately monitors and reports amounts of specially controlled industrial waste in accordance with the Waste Management and Public Cleansing Act.

For further information on specially controlled industrial waste output, please refer to Marubeni's website:  
<https://www.marubeni.com/en/sustainability/environment/eco/>

5. SUPPLY CHAIN: ENVIRONMENT

Policy

To build a better tomorrow, the Marubeni Group has identified Sustainable and Resilient Value Chains as an essential category of Environmental and Social Materiality, and formulated a Basic Supply Chain Sustainability Policy. In addition to managing the supply chain, we will also involve buyers of our products and enhance the strength and competitiveness of our entire supply chain, including our business partners.

- Basic Supply Chain Sustainability Policy, see page 16.
- Forest Management Policy, see page 10.
- Product Procurement Policy (Forest-derived Products), see page 12.

Initiatives (Examples)

**ESG Risk Assessment/Analysis**

In FYE 3/2018, as part of efforts to strengthen ESG risk management, the Marubeni Group conducted an assessment and analysis of all products and projects handled by the company to identify potential ESG risks. This assessment and analysis incorporated objective perspectives and methods in collaboration with an external consultant with specialized expertise. For the risk analysis, we referred to the ESG risk-related data and information published by international organizations, government organizations, research institutions, NGOs and other organizations, then narrowed the focus to approximately 30 products and projects likely to have ESG risks, and applied detailed risk analysis to them.

**Supply Chain Risk Assessment**

The Marubeni Group shares its Basic Supply Chain Sustainability Policy (the "Basic Policy") with suppliers, and requests that they thoroughly understand, cooperate and comply with it. We conduct due diligence and risk assessment through communication, questionnaires and on-site inspections for new and existing suppliers alike, and provide guidance and review the business relationship if any violations are confirmed. By ensuring that the Basic Policy is applied throughout our operations, the Marubeni Group reduces social and environmental risks.

Basic Supply Chain Sustainability Policy, see page 16.

**Supply Chain Sustainability Survey and On-site Inspections**

For compliance matters in the Basic Policy, a representative from the Marubeni Group conducts on-site inspections of suppliers who are based in countries that carry a high risk of

non-compliance, and who trade in sectors such as apparel and agriculture. A representative from the Marubeni Group directly visits the manufacturing or production sites of the suppliers to conduct such inspections. The inspections survey the supplier's efforts regarding the Marubeni Group's Basic Supply Chain Sustainability Policy.


Multifaceted surveys designed to fit the supplier's business situation and regional characteristics are conducted on-site, covering areas such as respect for human rights, legal and regulatory compliance, environmental preservation, fair trade, safety and health, quality control, and disclosure of information. Issues targeted by the survey and the survey methods are constantly reviewed, including through third-party opinions, in an effort to keep the survey relevant to the current circumstances. Survey results are reported back to the inspected sites, and information relevant to improvement of the relevant issues is shared. In addition, if there are cases of violation or of not meeting the Marubeni Group's regulations, or cases that are likely to have a negative impact, we encourage proactive reports and initiatives for impact mitigation from the supplier. By doing so, we are working to reduce environmental and social impacts throughout the supply chain.

If violations are found, we take steps to help suppliers improve. For example, we conduct training and awareness activities, provide support and make recommendations for improvement, and promote environmental and social response measures. If no improvement is seen even after these steps are implemented, we will give notice that we are reviewing our business with the supplier.

For further information on the supply chain sustainability survey, please refer to Marubeni's website:  
[https://www.marubeni.com/en/sustainability/supply\\_chain/survey/](https://www.marubeni.com/en/sustainability/supply_chain/survey/)

Japan REIT Advisors Co., Ltd. Becomes a Signatory of the Principles for Responsible Investment

Japan REIT Advisors Co., Ltd. (JRA), a Marubeni Group company in the real estate asset management business, conducts asset management for United Urban Investment Corporation (UUR), a J-REIT (Japanese Real Estate Investment Trust) listed on the Tokyo Stock Exchange. In November 2018, JRA became a signatory to the Principles for Responsible Investment (PRI).



For further information on the PRI, please refer to Marubeni's website:  
<https://www.marubeni.com/en/news/2018/release/00045.html>

For UUR, one of the largest diversified J-REITs, JRA aims to reduce various risks and secure mid-to-long-term stable earnings by making real estate investments in varied types of use and geographical locations. JRA is also working to improve sustainability by considering ESG factors for sound management to coexist with society and the environment. When considering real estate investments, JRA carefully examines the impact on the environment (asbestos, soil contamination/pollution, etc.), tenants (anti-social forces, work environment, etc.), and neighborhood (relationship with community, traffic congestion, etc.), in addition to the profitability of the relevant property.

Due to JRA's efforts to find environmental issues before acquisition and to improve environmental performance after acquisition, UUR has earned comprehensive environmental performance evaluations for its properties such as CASBEE (Comprehensive Assessment System for Built Environment Efficiency). Additionally, as of 2018, UUR has earned the Green Star for four consecutive years in the survey for the Global Real Estate Sustainability Benchmark (GRESB), the annual benchmark that assesses sustainability practices in the real estate sector.

For UUR, JRA will continue to keep eyes on ESG issues and make further efforts to conduct sustainable asset management.



United Urban Investment Corporation  
<http://www.united-reit.co.jp/en/>



United Urban Investment Corporation  
Initiatives for External ESG Recognition  
<http://www.united-reit.co.jp/en/feature/esg/environment.html>



Japan REIT Advisors Co., Ltd.  
<http://www.j-reitad.co.jp/en/>

Cooperation with External Organizations

Support for WWF Japan

Sustainable Production and Consumption

Taking into account the impact of the Marubeni Group's business activities on the natural environment, we cooperate with various stakeholders throughout the supply chain in efforts to preserve biodiversity and maintain sustainable production and consumption.

One such example is our support for WWF Japan, an international environmental organization. Furthermore, Marubeni participates in certification systems for forest products, marine products, vegetable oil, and other categories, and handles certified biodiversity-friendly products.

Participation in Supply Chain Initiatives

The Marubeni Group is participating in Sedex through Group companies with the aim of strengthening risk management in the supply chain and building sustainable supply chains.

Sedex is a collaborative information-sharing platform run by Sedex Information Exchange Ltd., an NPO based in London. Sedex enables the carrying out of internationally recognized supplier questionnaires on environmental, social and human rights issues. Responses and audit results are then shared among members via an online system, reducing the burden on both suppliers and prime contractors. Sedex enables ethical and responsible business practices in the supply chain on a global scale, and is one of the world's largest supply chain management systems for issues in the supply chain, encompassing processes from reporting issues to administration.


The Marubeni Group uses this management system to monitor supply chain issues, thereby expanding ethical business practices.



For further information on participation in supply chain initiatives, please refer to Marubeni's website:  
[https://www.marubeni.com/en/sustainability/supply\\_chain/](https://www.marubeni.com/en/sustainability/supply_chain/)

Supplier Capacity Building

The Marubeni Group offers regular training to suppliers to ensure that they correctly understand our Basic Policy on Supply Chain Sustainability and to deepen their understanding of environmental and social problems. We provide broad guidance to suppliers and facilitate the expansion of supplier capacity through a number of initiatives. These initiatives include sharing of best practices from the Marubeni Group and suppliers, including initiatives that address environmental and social issues, and secondment of employees from suppliers to Marubeni Group companies.



For further information on supplier capacity building, please refer to Marubeni's website:  
[https://www.marubeni.com/en/sustainability/supply\\_chain/](https://www.marubeni.com/en/sustainability/supply_chain/)

6. WATER

Policy

Water Resources Policy

Based on the Marubeni Group Environmental Policy, the Marubeni Group recognizes that energy and resources, including water, are finite, and takes 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.

Risk Management System

Water Resources

In dealing with water problems in regions suffering from water shortages, the Marubeni Group conducts risk analysis and implements business risk assessments for new investments and existing businesses. We make decisions on whether to go ahead with projects after comprehensively analyzing and assessing not only local laws and regulations, but also the impact on the local environment and communities.

Action Plans and Targets

Water Consumption at Tokyo Head Office

	Numerical Target for FYE 3/2021	Results in FYE 3/2018
Water Consumption at Tokyo Head Office	Reduce water consumption by 3% compared to FYE 3/2011	95.4% decrease from FYE 3/2011

For further information on water consumption at the Tokyo Head Office, please refer to Marubeni's website: <https://www.marubeni.com/en/sustainability/environment/eco/>

Initiatives (Examples)


Formulation of the Marubeni Group's Water Management Plan

As of March 31, 2018, 22 (5.1%) of the 430 Marubeni Group companies had established water management plans. These companies monitor and manage the amount of water intake, waste water, and recycled water, as well as quality and temperature of discharged water, and take measures to use water resources effectively and reduce their environmental burden. 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 discharged 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.

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 FYE 3/2021 by 8% compared to FYE 3/2013, and is implementing reduction measures and progress management to meet that goal.

 Koa Kogyo's initiatives:  
<http://www.koa-kogyo.co.jp/> (Japanese only)

 The Nisshin Oillio Group's initiatives:  
<http://www.nisshin-oillio.com/english/csr/index.shtml>

Initiatives in Water-Stressed Regions

The Marubeni Group owns and operates four IWPP\* projects in the arid region in the United Arab Emirates. In total, 440 million imperial gallons of desalinated 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 Emirates Water & Electricity Company, a state-owned utility under the Abu Dhabi Department of Energy. 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.)

\* Independent Water and Power Producer



Taweelah B Power & Desalination Complex

IWPP Projects in the United Arab Emirates	
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 wastewater 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, and our operation, maintenance and management of a wastewater treatment plant in Qatar, have a total water purification capacity of 3.5 million cubic meters per day and wastewater treatment capacity of 2.29 million cubic meters, and cover a service population totaling approximately 16 million people.

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 in the West Zone of Metro Manila in the Philippines, which has a population of 9.5 million people.

Amid the region's ongoing urban expansion and increased congestion, Maynilad is expanding its water distribution network to increase the coverage of water supply services. In addition, it continues to provide a stable water supply to some 1.4 million households in the concession area by promoting more efficient use of water resources with measures to prevent water pipeline 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 concession area.

Outline of Maynilad's Business	
Treatment Facilities	Treatment Capacity
Water treatment plant	2,550,000 m³/day
Wastewater treatment plant	271,925 m³/day
Sludge treatment plant	450 t/day

 Maynilad's initiatives:  
<http://www.mayniladwater.com.ph/>

 For further information on the long-term water sales agreement for the Shuqaiq 3 water project in Saudi Arabia, please refer to Marubeni's website:  
<https://www.marubeni.com/en/news/2019/release/20190130E.pdf>



Cooperation with External Organizations

Participation in CDP's Water Security Program

The Marubeni Group shares information about its ESG initiatives with its stakeholders around the world. As part of that effort, the Marubeni Group has participated in the disclosure program of CDP, an international NGO, since 2007. CDP is a project that calls on companies in various countries to disclose environmental information, including climate change measures. CDP analyzes and assesses the collected information, and makes it available to investors. CDP's database of environmental information on corporate climate change measures is one of the largest in the world.

The Marubeni Group has answered CDP's Water Security Program questionnaires, which evaluate corporate water management, since FYE 3/2014. This information is provided to stakeholders and is being used to improve the Marubeni Group's water management.

Note: Data on water management is collected from Marubeni Corporation and its domestic and international consolidated subsidiaries.

Related Data

Water Intake by Water Source

Water Intake by Water Source (Thousand m³)								
Water Intake by Source	Rivers, lakes and other surface water	Wells (groundwater)	Water pumped from quarries	Municipal water (tap water)	External drainage	Collected rainwater	Seawater and water extracted from the ocean	Total
FYE 3/2016	36,797	3,384	0	1,224	10,969	1	0	52,375
FYE 3/2017	35,206	6,127	0	803	8,721	1	167	51,025
FYE 3/2018	34,216	7,706	0	1,113	7,418	2	73	50,529

Amount of Wastewater by Destination


Amount of Wastewater by Destination (Thousand m³)						
Amount of Waste-water by Destination	Ocean	Surface water	Under-ground/wells	Off-site water treatment	Others	Total
FYE 3/2016	12,091	31,981	3	924	0	44,999
FYE 3/2017	10,628	32,949	3	835	0	44,414
FYE 3/2018	10,983	33,070	3	884	0	44,940

Note: Water quality upon discharge is appropriately managed based on the laws and regulations of each country and region.

Recycling Rate

Water Recycling Rate

The total water consumption of the Marubeni Group's 297 locations in FYE 3/2018 was approximately 50,529 thousand cubic meters, of which the amount recycled as non-potable water was 16,120 thousand cubic meters, for a recycling rate of about 32%.



For further information on the water recycling rate, please refer to Marubeni's website:  
<https://www.marubeni.com/en/sustainability/environment/water/>

Cases of Legal or Regulatory Violations

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

In FYE 3/2018, the Marubeni Group was found to have one violation related to the amount of wastewater 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 wastewater with the department. The results of a water quality test showed that there was no harm to the environment.

Water Risk Mitigation Measures and Investment Expenses Related to Water Risk Mitigation Measures

Marubeni spent a total of 128 million yen in FYE 3/2018 on water risk mitigation measures through its Group companies. These measures included maintenance and repair of water intake and drainage systems and recycling treatment facilities, installation of water-saving equipment, purchase of wastewater treatment chemicals, emergency response training for scenarios assuming the outflow of hazardous substances, and implementation of cleanup activities in the areas surrounding water sources.

We also spent 29 million yen in FYE 3/2018 as R&D expenses for maintaining water quality and securing water supplies in our business operations.




For further information on expenses related to water risk mitigation measures, please refer to Marubeni's website:  
<https://www.marubeni.com/en/sustainability/environment/water/>

Water Consumption Intensity in Food & Cement Production

Water Consumption Intensity

Water Consumption Intensity in Food Production (m³/ton)	
FYE 3/2016	24.1
FYE 3/2017	24.5
FYE 3/2018	28

Water Consumption Intensity in Cement Production (m³/ton)	
FYE 3/2016	0
FYE 3/2017	0
FYE 3/2018	0



For further information on water consumption, please refer to Marubeni's website:  
<https://www.marubeni.com/en/sustainability/environment/water/>