

Sustainability

Teijin Group Global Environmental Charter

The Teijin Group defines its Global Environmental Charter in line with our corporate philosophy.

The Teijin Group Global Environmental Charter

To fulfill the Teijin Group's corporate philosophy "We place the highest priority on safety and the preservation of our natural environment" to ensure society's sustainable development, we will:

1. Strive to promote efficient use of resources and energy and reduction of environmental impact to preserve the global environment.
2. Provide products and services that reduce the environmental impact for society through progress in science and technology with a focus on global environmental consciousness.
3. Participate in social activities aiming at conserving the global environment through education and raising awareness for group employees, and cooperation with local communities involved in our business activities.

(Established in December 1992; revised in July 2007)

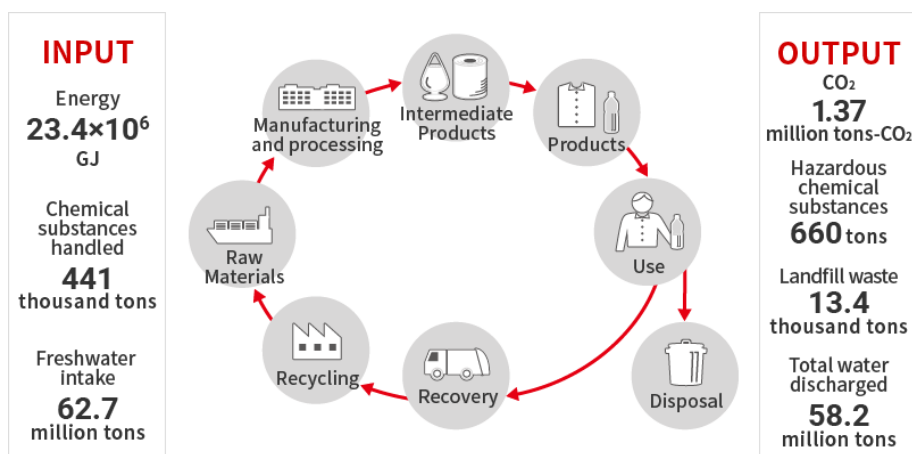
Sustainability

Business Activities and Environmental Impact

We strive to reduce environmental impact over the entire life cycle of products, including all processes from material procurement through to production, use, and disposal.

Teijin Group Environmental Input / Output in FY2020★

The Teijin Group considers environmental management to refer to "management that reduces the environmental impact over the entire life cycle of the product, including all processes from material procurement to production, product use and disposal." In addition to compliance with laws and regulations and agreements with local governments, we understand the effects on biodiversity and the environmental impact over the entire life cycle of the product, and work extensively on reducing CO₂ emissions, on minimizing the emission of chemical substances, and managing and reducing waste materials among others.



Status of acquisition of environmental management system certifications

As a mechanism to minimize its impact on the environment, the Teijin Group encourages its business sites and plants to obtain the ISO 14001 certification, an international standard related to environmental management, as well as the Eco Action 21 recommended by Japan's Ministry of the Environment.

Status of ISO 14001 certification

Japan (16 companies, 29 factories)	Teijin (Iwakuni, Matsuyama, Chiba, Mishima, Ibigawa, Teijin Composites Innovation Center, Mihara Factory) Hiroshima Plastic Teiyo Teijin Frontier (Head office, Ibigawa factory) Teijin Modern Yarn (Komatsu, Kaga) Frontier Tex Teijin Tedy Teijin Cordley Teijin Pharma (Tokyo Research Center, Iwakuni, Home Healthcare Technical Service Center) Unisel Infocom (head office, Kansai, Yokohama) Infocom West Japan (Matsuyama) Teijin Eco-Science (Matsuyama) Teijin Kosan (Ehime) Toho Chemical Engineering & Construction (Mishima, Tokushima) Toho Machinery
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**Overseas (19
companies, 34
factories)**

The Netherlands: Teijin Aramid (Delfzijl, Arnhem, Emmen)

USA: Teijin Carbon America, Continental Structural Plastics (Conneaut, Serepta, North Baltimore, Van Wert, Carey, Grabill, Huntington, Lenoir, Salisbury)

China: Nantong Teijin, Nantong Teijin Automotive Fabrics Finishing, Teijin Chemicals Plastic Compounds Shanghai, Teijin Polycarbonate China, N.I. Teijin Airbag Fabric (Nantong), CSP Victall (Tangshan) Structural Composites

Thailand: Teijin Polyester (Thailand), Teijin (Thailand), Thai Namsiri Intertex (Weaving, Dyeing), Teijin Cord (Thailand), Teijin Corporation (Thailand), Teijin FRA Tire Cord (Thailand)

Germany: Teijin Carbon Europe, Ziegler

Mexico: Continental Structural Plastics (Saltillo, Tijuana)

Portugal: Inapal (Leça do Balio, Palmela)

Czech Republic: Benet (Čejetice, Čejetičky, Milovice)

South Korea: Teijin Lielsort Korea

Sustainability

Climate Change Initiatives (Disclosure Based on TCFD Recommendations)

In Medium-Term Management Plan 2020-2022, the Group has designated "climate change mitigation and adaptation" as an important issue (materiality). Accordingly, the Group is leveraging lightweight and energy-efficient technologies to contribute to the transition to a carbon-free society. At the same time, the Group is making efforts to reduce greenhouse gas emissions from its business activities.

Governance

Under the guidance and supervision of the Board of Directors, the Teijin Group is making efforts to address climate change-related issues as part of its efforts toward sustainability and risk management, and has put the Chief Social Responsibility Officer (CSRO) in charge of these efforts. The direction, planning, and progress of the Group's climate change efforts are deliberated by the organizations as mentioned below. The Board of Directors provides instruction on these efforts.

- Deliberations on basic plans and reports of their progress take place at the Total Risk Management (TRM) Committee. The details of these discussions are then reported to the Board of Directors (twice a year).
- Reports on executive functions are provided to the Board of Directors by the CSRO (once a year).

[Corporate Governance](#) >

Strategy

Risks and opportunities related to climate change

Toward the realization of a sustainable society, the Teijin Group is striving to contribute to climate change mitigation through the supply of "Environmental value solutions" utilizing our technologies for reducing weight and increasing efficiency that we have fostered so far and to climate change adaptation through the supply of "Safety, security, and disaster mitigation solutions" that will be useful in reducing and promptly restoring from the damage by natural disasters.

In addition, since the Teijin Group engages in wide-ranging business globally, we recognize that our business activities do place a considerable burden on the global environment. Premising our approach on the ensuring of safety, we endeavor to reduce this environmental load with the aim of achieving the sustainable growth of both society and the company.

When formulating the Medium-Term Management Plan 2020-22, we analyzed the opportunities and risks relating to the Sustainable Development Goals (SDGs) by thinking backwards on how to achieve our vision in 2030. During this analysis, we identified climate change-related opportunities for each business and incorporated them into our business strategies. We have decided to allocate resources (capital expenditures and other investments) to Environmental Value Solutions (including solutions for climate change mitigation such as lightweight solutions) and Safety, Security, and Disaster Mitigation Solutions (including solutions for climate change adaptation) with the aim of expanding our businesses.

In addition, we analyzed the impact of climate change risks on our operations from the three perspectives listed below. Based on this analysis, we have established long-term environmental targets and are making efforts to reduce our CO₂ emissions accordingly. In FY2020, we formulated a road map for achieving these targets. We also raised our target for CO₂ emissions reduction in Scope 1 and Scope 2 in July 2021 and formulated a new target for CO₂ emissions reduction in Scope 3.

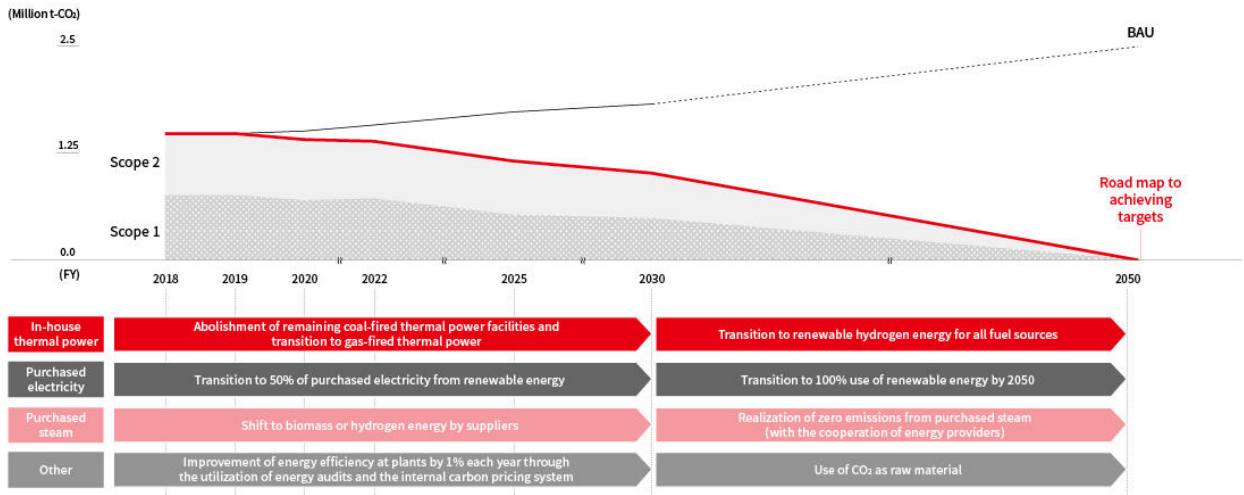
Climate change-related opportunities and risks

Category	Major opportunities	Time frame	Major initiatives
Opportunities concerning products and services	<ul style="list-style-type: none"> Increase in profits through the provision of solutions that contribute to "climate change mitigation and adaptation" 	Short term-long term	<ul style="list-style-type: none"> Provision of Environmental Value Solutions that leverage lightweight and energy-efficient technologies
Opportunities concerning resilience		Short term-long term	<ul style="list-style-type: none"> Provision of Safety, Security, and Disaster Mitigation Solutions that help reduce damage and facilitate a prompt recovery in the event of a natural disaster

Category	Major risks	Time frame	Major initiatives	
Transitional risks	Policies and legal regulation	<ul style="list-style-type: none"> Increase in costs due to the introduction of a carbon tax, EU Emissions Trading Scheme, etc. 	Short term-long term	<ul style="list-style-type: none"> Monitoring of trends in various policies and regulations Introduction of internal carbon pricing system targeting capital expenditures that can lead to an increase/decrease in CO₂ emissions
	Market and reputation	<ul style="list-style-type: none"> Decrease in corporate value and worsening of reputation due to an increase in Group CO₂ emissions 	Medium term-long term	<ul style="list-style-type: none"> Management of CO₂ emissions of Group companies both in Japan and overseas, including affiliated companies Formulation of road map for achieving long-term environmental targets
Physical risks	Acute and chronic risks	<ul style="list-style-type: none"> Suspension of business activities as a result of climate change, including increased intensity of natural disasters such as typhoons and floods, long-term temperature increases, and rising sea levels 	Short term-long term	<ul style="list-style-type: none"> Regular review of BCP and implementation of various disaster prevention drills

Roadmap for reducing CO₂ emissions

The Teijin Group seeks to achieve net zero CO₂ emissions by 2050 through the early phase-out of all coal-fired power generation facilities and a transition to renewable energy sources for electricity.

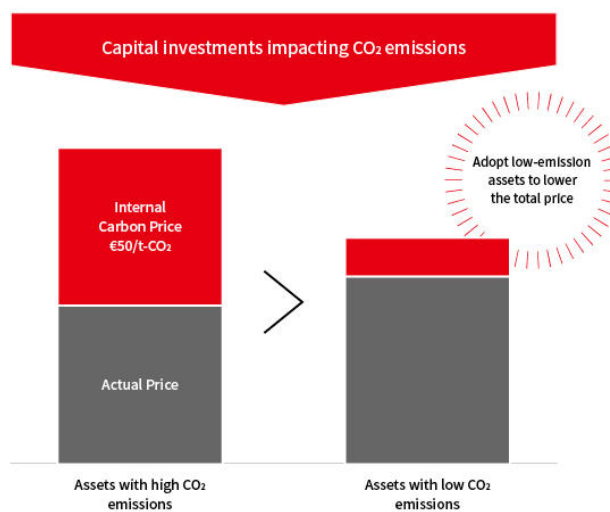


Introduction of internal carbon pricing system*

The Teijin Group established and introduced an internal carbon pricing (ICP) system* targeting capital expenditure plans throughout the Group that can lead to an increase/decrease in CO₂ emissions in FY2020 and began application starting with capital expenditures in FY2021. Under the new ICP system, we apply a uniform internal carbon price (€50/t-CO₂) Groupwide and globally, thereby quantifying CO₂ emissions as costs that we can consider when making investment decisions. Through the launch of this system, we will promote capital expenditure plans that help reduce CO₂ emissions with the aim of achieving our long-term goals for CO₂ emissions reduction and prepare the Company for expected future rises in global carbon prices.

* A system that creates economic incentives to reduce CO₂ emissions by establishing internal carbon prices to quantify CO₂ emissions as costs, thereby promoting internal efforts to respond to climate change

Teijin's ICP System



Scenario analysis related to climate-change

After identifying businesses and industries that have the potential to be significantly impacted by climate change, the Teijin Group has been conducting an analysis of the level of this impact based on the 2°C scenario and the 4°C scenario,* referencing World Energy Outlook, published by the International Energy Agency (IEA).

* 2°C scenario: IEA WEO Sustainable Development Scenario/IEA WEO 450; 4°C scenario: IEA WEO Stated Policies Scenario

Regarding trends in the aviation industry and the automobile industry, which are the customers of our carbon fiber and composites businesses and could be significantly impacted by climate change, we carried out an analysis of the 2°C and 4°C scenarios in FY2019. The results of the analysis showed that in the 2°C scenario, although there was a drop in demand compared with the 4°C scenario in the aviation industry, the impact on business strategy and earnings was slight since the use of lightweight materials can be assumed to be increased. Also, in the automobile industry, in the 2°C scenario, while the demand for electric vehicles and the need for lighter weight increased, the rising trend of car sharing limited the increase in car sales. In the 4°C scenario, while there was a rise in the number of car sales, the need for lighter weight was limited, and the positive and negative impacts on demand cancelled each other out. In both scenarios, it was confirmed that the impact of the difference on demand was either slight or fifty-fifty, so there would be no serious impact on business strategy or earnings.

In FY2020, we reviewed our base scenario in light of the changing trends in the aviation industry due to the COVID-19 pandemic and revised our plans for profits in the carbon fibers business following the decline in demand for carbon fiber intermediate materials for aircraft. We will keep a close eye on trends and consider the appropriate timing of investments and resource distribution.

Risk Management

Groupwide management methods for climate change risks

The Teijin Group has in place a Total Risk Management (TRM) system targeting both strategic and operational risks, as a preventative measure against the uncertainty that the Company may face.

Physical risks and transitional risks due to climate change are managed under our TRM system and analyzed along with other risks through TRM risk assessment. In this way, we identify important risks. In addition to formulating BCPs to respond to physical risks, we are monitoring the status of CO₂ emissions both in Japan and overseas, including at affiliated companies.

Risk management structure

1. Each business implements risk management in accordance with the frontline operations.
2. CSRO confirms and makes instructions on the risk management status of each business at the CSR Committee and the CSRO review.
3. CSRO reports and makes proposals related to Groupwide risk management at the TRM Committee, followed by discussions and instructions.
4. CSRO reports the contents of discussions at the TRM Committee to the Board of Directors. The Board of Directors deliberates on basic TRM plans.

[Risk Management](#) >

Indicators and Targets

Under Medium-Term Management Plan 2020-2022, the Teijin Group has established long-term targets for reducing its environmental impact. To accelerate efforts to realize net zero CO₂ emissions, in July 2021 we raised the FY2030 target for Groupwide greenhouse gas (GHG) emissions from a 20% reduction compared with FY2018 to a 30% reduction. We also established a new target for reducing GHG emissions in the supply chain¹ --a 15% reduction by FY2030 compared with FY2018. With the aim of having these targets approved by the Science Based Targets initiative, we adopted calculation methods based on the GHG Protocol as opposed to the calculation methods previously used, which were based on the Law Concerning the Promotion of the Measures to Cope with Global Warming.

* Covers Scope 3 emissions in Category 1 (purchased goods and services) except trading businesses

Avoided CO₂* emissions

The Teijin Group aims to reduce CO₂ emissions throughout the entire supply chain by using its long-cultivated technologies for reducing weight and increasing efficiency. Also, we calculate the impact of using our products on reducing CO₂ emissions in the downstream supply chain as “avoided emissions.” By fiscal 2030, we aim to make the amount of our avoided emissions larger than our total emissions, which comprise our Groupwide CO₂ emissions and CO₂ emissions from the upstream supply chain (Scopes 1 and 2 and upstream Scope 3).

* Includes CO₂, methane, and N₂O

The Group’s targets

Achieve goal of making the amount of avoided CO₂ emissions larger than total CO₂ emissions by fiscal 2030



Group CO₂ emissions

We aim to reduce our greenhouse gas emissions by 30% compared to the FY2018 level by FY2030 and to achieve net zero emissions by FY2050.

The Group’s targets (KPI)

FY2030: 30% reduction (vs. 1.48 million tons-CO₂* in FY2018)

FY2050: Net zero emissions

* Comparisons with data from the base year, FY2018, that have been recalculated based on the GHG Protocol

Supply chain CO₂ emissions

In FY2020, we set the supply chain CO₂ emissions targets for the period until FY2030. The target for supply chain CO₂ emissions covers Scope 3 emissions in Category 1 (purchased goods and services) except trading businesses.

Group target (KPI)

FY2030 Reduction of 15% compared with FY2018

Efforts to Reduce CO₂ Emissions

Avoided CO₂ emissions

In FY2020, our avoided emissions decreased 50% compared with the previous year, to 1.65 million t-CO₂, as demand declined primarily for automobile and aircraft applications due to the impact of the COVID-19 pandemic.

Total CO₂ emissions and avoided CO₂ emissions

	Total CO ₂ emissions*	Avoided CO ₂ emissions
FY2019	5.35 million t-CO ₂	3.28 million t-CO ₂
FY2020	5.18 million t-CO ₂	1.65 million t-CO ₂

* Total CO₂ emissions are calculated for Scope 1, Scope 2, and Category (C)1 (Purchased goods and services), C2 (Capital goods), C3 (Fuel- and energy- related activities (not included in scope1 and scope 2), C4 (Upstream transportation and distribution), C5 (Waste generated in operations), C6 (Business travel), C7 (Employee commuting) in Scope 3.

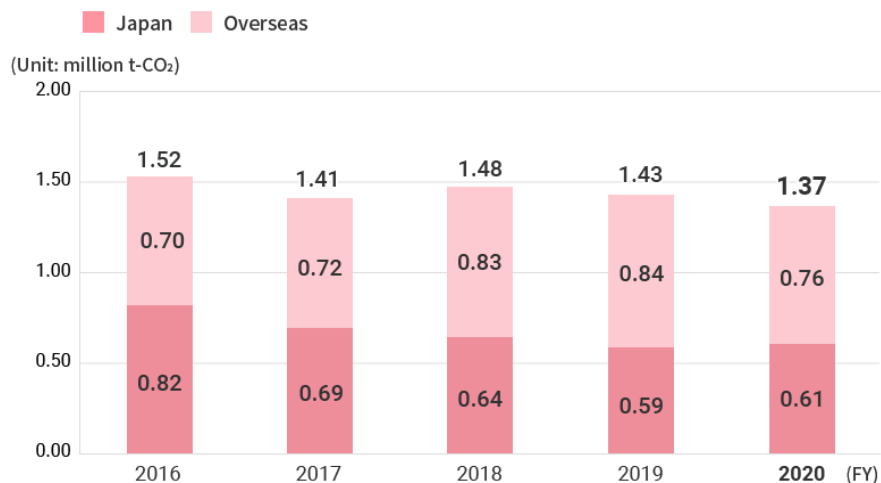
Group CO₂ emissions

In FY2020, Group CO₂ emissions decreased 4% compared with the previous year, to 1.37 million t-CO₂ ★, due to a decrease of about 0.15 million t-CO₂ resulting from our low operating rate caused by the COVID-19 pandemic and the transfer of the film business, which offset an increase of 0.09 million t-CO₂ following our transition to emission calculation methods based on the GHG Protocol. This result represented a 7% decrease* in emissions compared with FY2018. In FY2020, Scope 1 emissions were 0.71 million t-CO₂ ★, and Scope 2 emissions were 0.66 million t-CO₂ ★.

Toward the realization of a carbon-free society, we are working to abolish all in-house power facilities that use coal-fired thermal power as early as possible and gradually replace our current source of electricity with renewable energy sources. By doing so, we are working to decouple our business growth with greenhouse gas emissions.

* Comparisons with data from the base year, FY2018, that have been recalculated based on the GHG Protocol

Trends in Group CO₂ Emissions ★



* Includes CO₂, methane, and N₂O. CO₂ emissions data for FY2019 and earlier was calculated based on the Law Concerning the Promotion of the Measures to Cope with Global Warming, while data for FY2020 was calculated based on the GHG Protocol. Although we deducted the amount of CO₂ emissions equivalent to the amount of energy sold to other companies from the data for FY2019 and earlier, this amount has not been deducted from the data for FY2020. In addition, the scope of calculation for FY2020 includes non-energy-derived CO₂ emissions from carbon fiber production, calculated based on the chemical reaction balance.

Supply Chain CO₂ Emissions

In FY2020, Scope 3 emissions in Category 1 were 3.31 million t-CO₂* ★.

The target indicator for supply chain CO₂ emissions (Scope 3 emissions in Category 1 except trading businesses) for FY2020 was a 5% reduction compared to FY2018, mainly due to a decrease in production activities as a result of effects from COVID-19.

* The calculation criteria for Category 1 are as follows:

Category 1 emissions are calculated by multiplying the purchased weight or purchased value of purchased goods and services by the emissions intensity in units of weight or value. Products procured through the Teijin Group's trading businesses are also included in the Category 1 calculation. Also, emissions intensity data for monetary units is from the Ministry of the Environment's Emissions Unit Values for Accounting of Greenhouse Gas Emissions, etc., by Organizations Throughout the Supply Chain (Ver. 3.1) (March 2021) (Emissions Unit Values Database V. 3.1). Emissions intensity data for weight units is based on the intensity data of the Ecoinvent Database (operated by Ecoinvent Association) or the GaBi Database (operated by Sphera).

Reducing CO₂ emissions associated with use of company vehicles

In Japan, the Teijin Group set independent numerical reduction targets by business site for CO₂ emissions associated with the use of company vehicles. Common measures include updating vehicles used for sales activities to eco-cars and recommending fuel-efficient driving. These measures have achieved a reduction in CO₂ emissions per distance traveled.

Due in parts to effects from the COVID-19 pandemic, total CO₂ emissions related to the use of company vehicles in FY2020 were 5,137 tons★ (20% reduction compared to FY2019).

Efforts to reduce CO₂ emissions from offices

We are taking measures to improve the efficiency of energy use at Teijin Limited, group company head offices, sales branches and other business sites. A particular measure in summer/winter, besides encouraging suitable operation of office air-conditioning, is the Teijin Cool Biz/Warm Biz initiative, which encourages clothing appropriate for the season (dress code) to facilitate less power consumption and comfortable office environments.

In FY2020, the total CO₂ emitted was 5,391 tons★ (a 1% reduction compared to FY2019) due to energy-saving measures implemented at our business sites.

Reducing CO₂ emissions in logistics

In FY2020 CO₂ emissions in logistics amounted to 5,886 tons★, down 1,193 tons from FY2019.

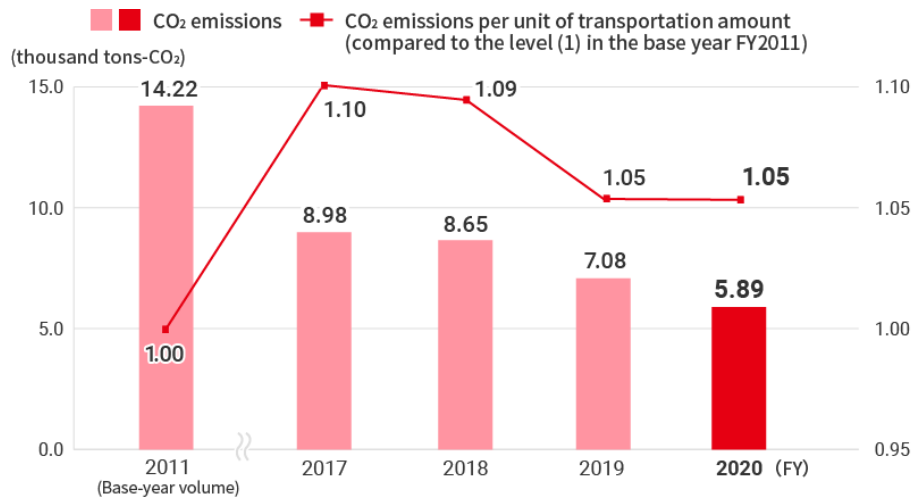
Against the backdrop of lower shipments due to effects from the COVID-19 pandemic in FY2020, the overall volume of freight transportation declined (down by 509,000 t-km/year). As part of our portfolio transformation, the transfer of our film business subsidiary to Toyobo Co., Ltd. in October 2019 was also a major factor.

As an ongoing measure to reduce the environmental load, in FY2020 we also improved our truck loading rate and implemented a modal shift (utilizing Japan Railway transportation and shipping). For example, we shifted from trucks to ship and rail transportation. We also decreased transportation using small trucks, increased bundled transportation using large trucks, and took other measures to increase transportation efficiency.

As a result of the steady implementation of these measures even during the COVID-19 pandemic, CO₂ emissions have decreased. In the entire Group's logistics, CO₂ emissions per unit of transportation was flat compared with FY2019. The standard basic unit per 1,000 t-km (tons-CO₂/1,000 t-km) was 1.053★ (against 1 in FY2011).

In FY2021 we will continue our efforts to lower emissions per unit by increasing vehicle size (expanding bulk transportation), improving the truck loading rate, and promoting a modal shift.

Trends in CO₂ Emissions in logistics and CO₂ Emissions per unit of transportation amount ★



- * The scopes for calculating CO₂ emitted by logistics for each fiscal year are as follows.
 FY2011: Teijin Limited (excluding the aramid fiber business), Teijin Film Solutions Ltd., and the former Teijin Fiber Co., Ltd.'s apparel business that was consolidated with Teijin Frontier Co., Ltd.
- * FY2017: Teijin Limited, Teijin Film Solutions Ltd., Teijin Frontier Co., Ltd., Teijin Pharma Limited, Toho Tenax Co., Ltd., Teijin Cordley Limited, and Teijin Engineering Ltd.
 FY2018 and FY2019: Teijin Limited, Teijin Film Solutions Ltd., Teijin Frontier Co., Ltd., Teijin Pharma Limited, Teijin Cordley Limited, and Teijin Engineering Ltd.
- * In FY2018, the former Toho Tenax was transferred and integrated into Teijin Limited.
- * FY2020: Teijin Limited, Teijin Frontier Co., Ltd., Teijin Pharma Limited, and Teijin Cordley Limited
- * Teijin Film Solutions Ltd. and Teijin Engineering Ltd. are not included.

Sustainability

Resources Recycling Initiatives

We promote resources recycling initiatives with a focus on reducing the amount of landfill waste.

Reduction of Landfill Waste

The Group's targets (KPIs) for FY2030

By FY2030, improve the landfill waste volume per sales unit by 10% compared to FY2018

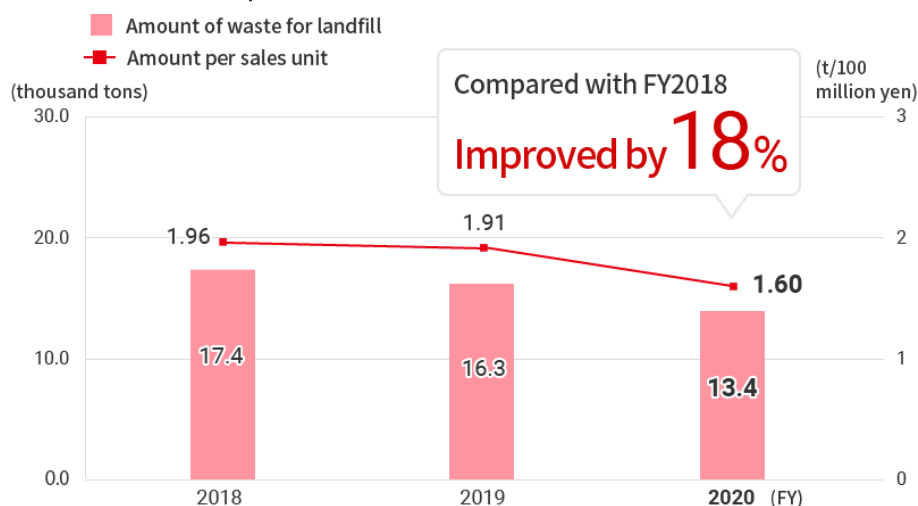
The Teijin Group is committed to continued efforts to reduce landfill waste by reusing waste and switching to recycling of materials, chemicals, and thermal substances.

With a decline in operation rate due to the impact of COVID-19, our landfill waste volume in FY2020 decreased 18% compared with the previous year, to 13.4 thousand tons ★, representing an 18% improvement per sales unit compared with FY2018.

Further, with regard to reduction of waste with no effective use for which the target was to reduce by 85% or more compared to the FY1998 level by FY2020, the amount was 15.4 thousand tons ★ for FY2020, decreasing by 19% year-on-year. The reduction rate compared to FY1998 was 67% and the target could not be achieved.

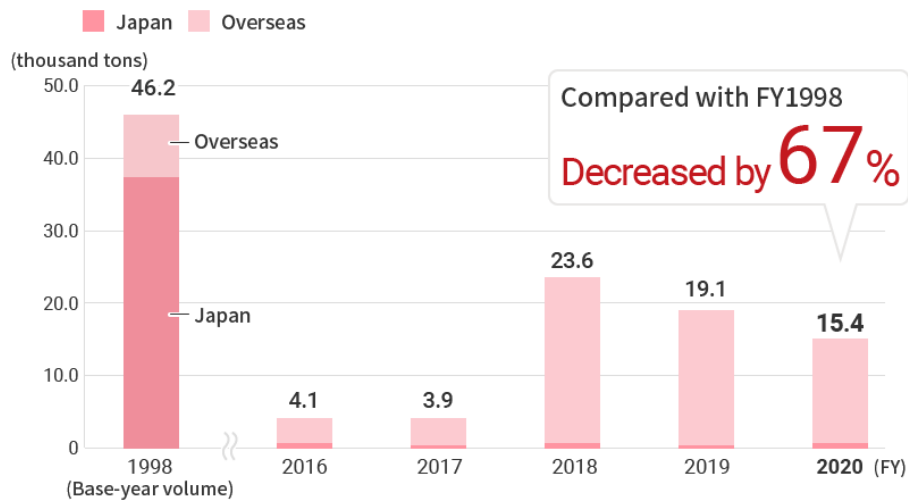
In FY2018, Continental Structural Plastics (CSP) was included in the scope of aggregation so the amount of waste increased significantly. We are moving forward with specific efforts to reduce landfill waste volume at CSP, which, among Group companies, generates a particularly large volume of waste, including reducing the volume of plastic waste by improving the yield rate at each of CSP's factories.

Trends in landfill waste volume ★ and volume per sales unit*



* There was an error in the figure and it was corrected on February 3, 2022.

Trends in “waste with no effective use” ★



Measures to Address the Marine Plastic Waste Problem

Marine plastic waste has become a serious problem as a result of its negative impacts on life and ecosystems through marine pollution and food chains. This problem has become an increasingly urgent global concern. In September 2018, the Teijin Group issued a "Declaration for Solving the Plastic Marine Waste Problem" to demonstrate its commitment to this problem. Regulatory trends surrounding marine plastic waste could elevate the risk of a loss of existing business. However, the Teijin Group considers this as an opportunity to drive growth in the markets for recycling and alternative products. Based on this belief, the Teijin Group is advancing initiatives to reduce its environmental impact and provide environmental value solutions.

Declaration for Solving the plastic Marine Waste Problem

The Teijin Group will contribute to the reduction of plastic marine waste through our voluntary efforts of management / recycling promotion of plastic we produce and /or use, and material development.

September 1, 2018


 (Jun Suzuki)
 Representative Director and President & CEO,
 Teijin Ltd.

Helping to solve the marine plastic waste problem through the recycling of PET bottle

Teijin Frontier Co., Ltd. has been implementing a recycling project based on the concept of "local production for local consumption" in various parts of Japan. In this project, Teijin Frontier collects waste generated at the venues of outdoor events and recycles this waste into resources. In July 2018, Teijin Frontier collected PET bottles at a beach cleanup event at Katsuura Beach and recycled the PET bottles into original straps. In September 2018, "Munakata Fes," an outdoor music festival, was held in the city of Fukutsu in Fukuoka Prefecture. At the event, Teijin Frontier handed out the original straps made from recycled PET bottles to participants in the cleanup activities and volunteers at the venue of the music festival. Teijin Frontier also collected PET bottles on the days of the "Munakata Fes" for recycling and recycled them into official merchandise for the 2019 music festival.



Cleanup activities at Munakata Fes

Sustainability

Reducing Hazardous Substance Emissions

We are working to systematically reduce emissions of hazardous chemical substances associated with our business activities and commit to preventing environmental pollution.

Reducing Emissions of Hazardous Chemical Substances^{*1}

So far, the Teijin Group has been engaged in the reduction of hazardous chemical substances with the goal of achieving its targets by FY2020. In FY2019, the Group set new targets for FY2030 and launched initiatives for achieving them.

The Group's targets (KPIs) for FY2030

By 2030, improve the hazardous chemical substances emissions per sales unit by 20% compared to FY2018

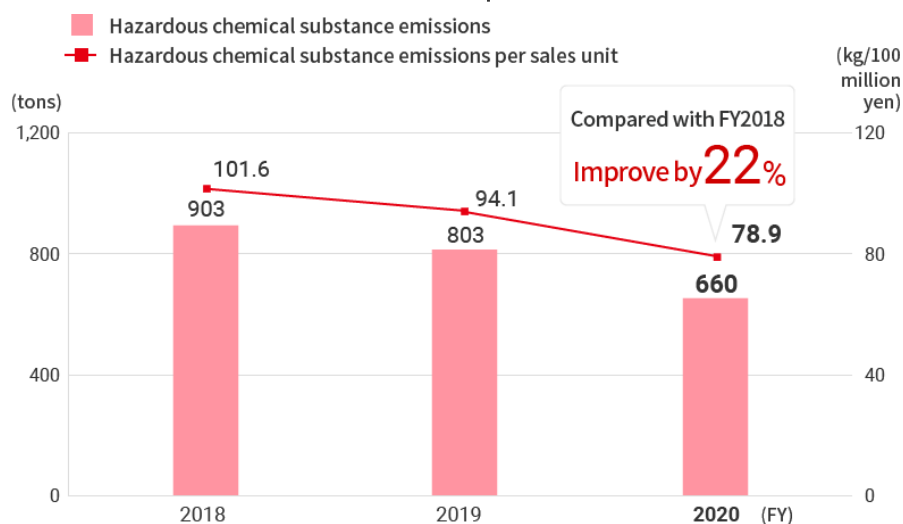
In addition to steadily responding to various regulations, we are striving to improve yield rate within processes that use hazardous chemical substances. There were no violations of the various regulations at the Teijin Group in FY2020. We established measures to reduce and prevent leaks of hazardous chemical substances in each business, including the carbon fibers and resin and plastic processing businesses. As a result of these measures, as well as the impact of the COVID-19 pandemic, our hazardous chemical substance emissions decreased 18% compared with the previous year, to 660 tons[★], making for a 22% improvement per sales unit compared with FY2018.

By FY2020, with regard to emissions of chemical substances into the environment^{*2}, for which the target was to reduce by 80% or more by FY2020 compared to FY1998, the amount for FY2020 was 1.51 thousand tons[★], a 14% decrease from the previous year, with the reduction rate compared to FY1998 at 81%, and the targets being achieved. The breakdown of emissions of chemical substances into the environment in FY2020 was 98.5% for emissions into the atmosphere, and 1.5% for emissions into water, and there were no emissions for soil or landfills.

*1 Among the class 1 designated chemical substances under the Act on Confirmation, etc. of Release Amounts of Specific Chemical Substances in the Environment and Promotion of Improvements to the Management Thereof and chemical substances indicated by the Japan Chemical Industry Association, chemical substances harmful to aquatic environments and the ozone layer are subject to the calculation of atmospheric, water, and soil emissions.

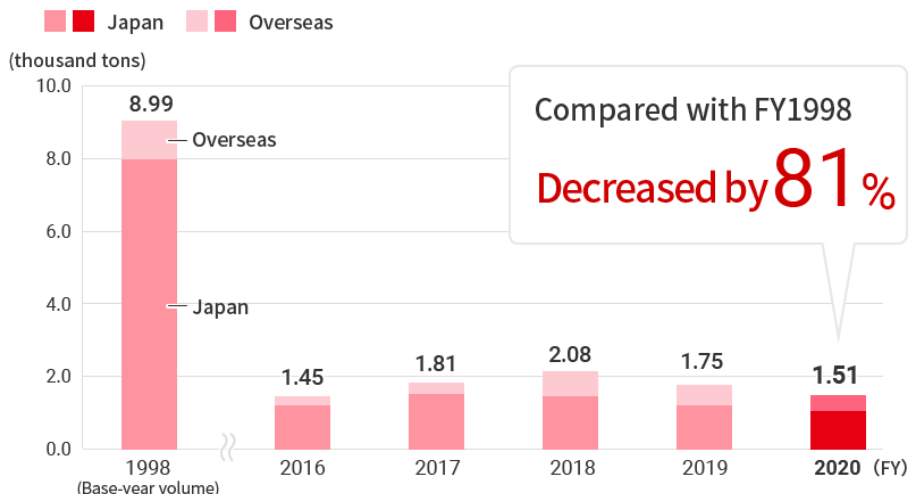
*2 The total amount of emissions into the atmosphere, water, soil, and landfill for a total of 567 chemical substances including Class I chemical substances listed in the Chemical Substances Management Law (462 substances: revised April 2010) and chemical substances (105 substances) voluntarily assessed by the Japan Chemical Industry Association (JCIA).

Trends in emissions of hazardous chemical substances[★] and emissions per sales unit



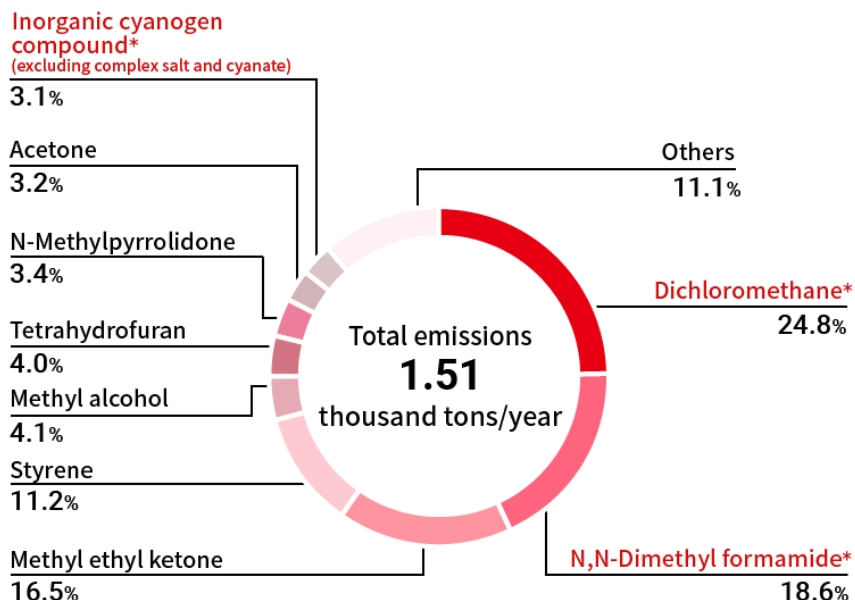
* Among the class 1 designated chemical substances under the Act on Confirmation, etc. of Release Amounts of Specific Chemical Substances in the Environment and Promotion of Improvements to the Management Thereof and chemical substances indicated by the Japan Chemical Industry Association, chemical substances harmful to aquatic environments and the ozone layer are subject to the calculation of atmospheric, water, and soil emissions.

Trends in chemical substance emissions ★



■ For emissions of Class 1 chemical substances listed in the Chemical Substances Management Law and chemical substances designated by the Japan Chemical Industry Association, the figures shown are the total of emissions into the atmosphere, soil, and water, and landfill amounts within business sites.

Top 10 chemical substance emissions ★

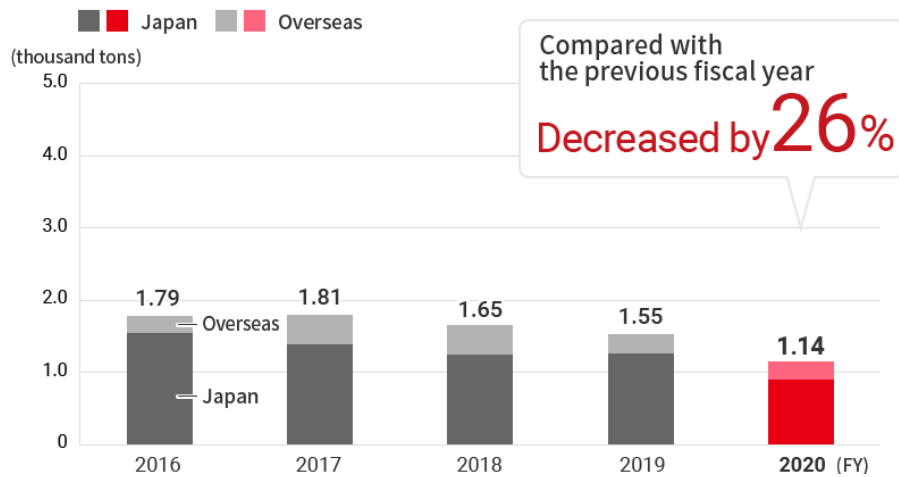


* Red text denotes chemical substances specified as Class 1 in the Chemical Substances Management Law.

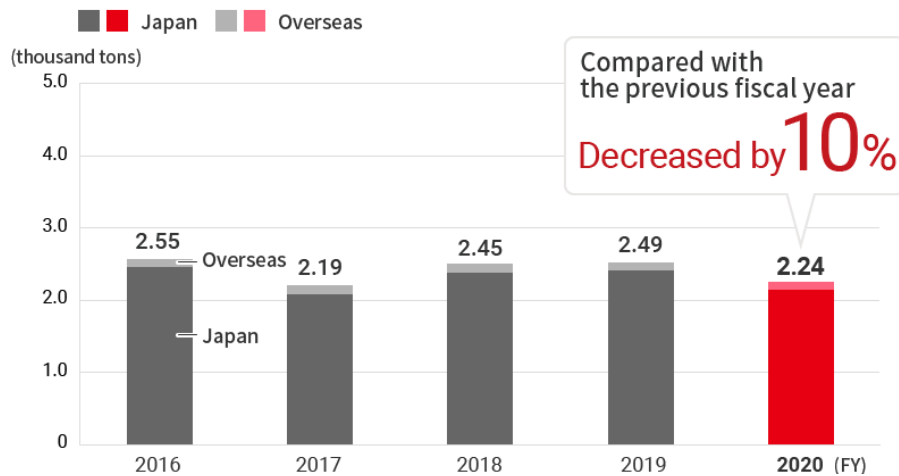
Impact on Atmosphere

NOx emissions resulting from fuel use were down 26% from the previous year at 1.14 thousand tons ★, while SOx emissions generated in the same manner were down 10% from the previous year at 2.24 thousand tons ★. Further, emissions of volatile organic compounds (VOC) decreased by 13% from the previous year to 1.46 thousand tons ★.

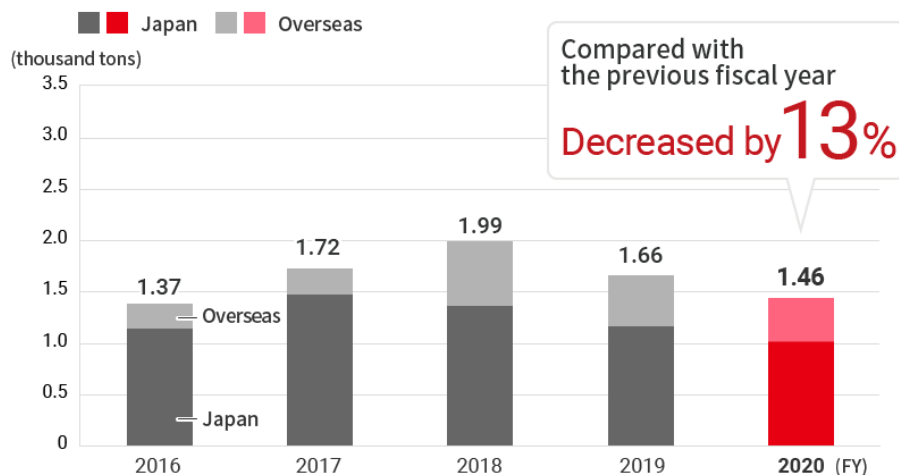
Trends in NOx emissions ★



Trends in SOx emissions ★



Trends in VOC emissions ★



Preventing Soil / Groundwater Pollution

In addition to conforming to each country's and territory's legislation relating to the prevention of soil pollution, the Teijin Group formulated guidelines for preventing soil and groundwater pollution. Under these guidelines, we are striving to prevent soil and groundwater pollution resulting from our business operations.

Sustainability

Management of Water Resources

In response to the increasingly critical water shortages and water pollution worldwide, the Teijin Group is endeavoring to reduce water consumption at business sites bearing in mind water-related risks, while promoting the efficient use of water resources.

Management of Water Resources

The Group's targets (KPIs) for FY2030

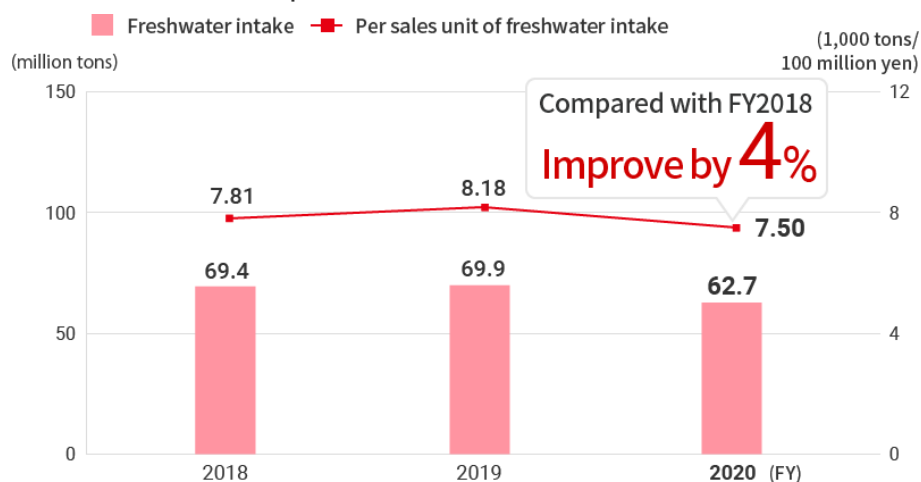
By FY2030 improve the freshwater intake volume per sales unit by 30% compared with FY2018.

We are expanding the number of products that use less water during the production process and making efficient use of water in our business activities.

In FY2020, with a decline in operation rate due to the impact of COVID-19, the freshwater intake volume decreased 10% compared with the previous year to 62.7 million tons ★, which constituted a 4% improvement per sales unit over FY2018.

In these ways, in the future too, we aim to achieve our targets for reducing the amount of freshwater intake with a focus on curtailing water use at manufacturing sites and other locations that use high volumes of water, including the Mishima Factory in the Carbon Fibers Business and each domestic and overseas Group company in the Fibers & Products Converting Business.

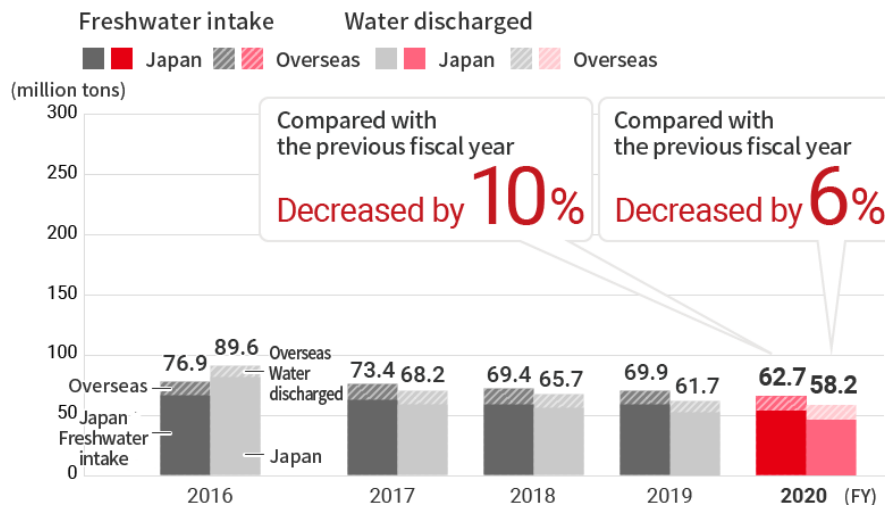
Trends in freshwater intake volume ★ and volume per sales unit



Environmental Load due to Wastewater

In FY2020, wastewater volume decreased by 6% year-on-year to 58.2 million tons ★. In addition, chemical oxygen demand (COD) decreased by 26% year-on-year to 304 tons ★, bio-chemical oxygen demand (BOD) increased by 23% year-on-year to 64 tons ★, and the load due to wastewater (calculated from COD and BOD) decreased by 21% year-on-year to 368 tons ★.

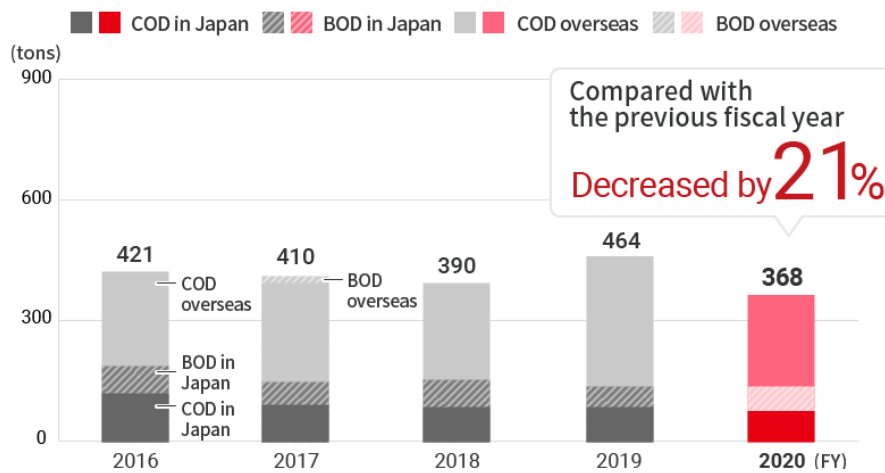
Trends in freshwater intake and water discharged ★



* The amount of freshwater intake is the total of industrial water, groundwater, and tap water.

* The amount of water discharged includes seawater used for cooling (until FY2016).

Trends in COD and BOD loads ★



* The tally covers wastewater discharged in rivers, sea areas, and lakes.

* At sites measuring both COD and BOD, the COD value is used if data exists.

Water Risk Measures

The Teijin Group uses the Aqueduct water risk assessment tool of the World Resources Institute to analyze risks at manufacturing sites. At the present point in time, there are no sites harboring serious risks, but at sites in regions where there are concerns that water usage might be limited, we are promoting measures toward the reduction of water usage.