

# Environment

032 Environmental Management

043 Environmentally Friendly Automobiles

049 Climate Change

058 Resource Recycling

062 Water Resources

064 Biodiversity

069 Prevention of Pollution

071 FYE March 2021 Environmental Performance  
Data for Plants and Offices



# Environmental Management

## Our Approach

In its Environmental Policies, SUBARU states that our fields of business are “the earth, the sky and nature” and focuses on efforts aimed at coexistence with nature. In mid-term management vision “STEP,” we are committed to making environmental contributions by enhancing the environmental performance of our products. We include “Environment” in the Six Priority Areas for CSR and deem it important to conduct environmental activities as a precondition to continue our business activities.

In order to foster environmental activities across the Subaru Group, we have our Environment Committee as well as a cross-company integrated environmental management system, which covers all Group sites, domestic and overseas consolidated production companies and SUBARU CORPORATION dealers in Japan and abroad.

Based on this system, we are fostering environmental management activities through an all-Subaru approach, including formulating medium- to long-term environmental targets, implementing measures to achieve the targets, complying with environmental laws and regulations, managing chemical substances, and compiling environmental performance data.

## SUBARU Environmental Policies

### SUBARU Sustainability Principles

#### “The earth, the sky and nature” are Subaru’s fields of business.

With the automotive and aerospace businesses as the pillars of SUBARU’s operations, our fields of business are the earth, the sky and nature. Preservation of the ecosystem of our planet, the earth, the sky and nature, is of utmost importance to ensure the future sustainability of both society and our organization. We align our business strategy to enhance these global goals in all of our operations.

#### 1. We develop and deliver products to meet societal needs and contribute to the environment through advanced technologies.

By striving to create advanced technologies that put the environment and safety first, we will develop and deliver products that can contribute to protecting the earth’s environment.

#### 2. We focus on efforts aimed at coexistence with nature.

Together with efforts to reduce carbon-dioxide emissions in all of our operations, we will promote active engagement with nature by stressing forest conservation.

#### 3. We take on challenges as one through an all-Subaru approach.

Utilizing our unique organizational character that allows us to oversee the entire supply chain, all of us together will take on the challenges of environmental protection of our planet through an all-Subaru approach.

### Environmental Principles

Subaru’s fields of business are the earth, the sky and nature. Subaru understands that the health and preservation of biodiversity and controlling climate change are critical to ensuring a sustainable future for our planet earth, nature, communities, and businesses.

- Products:** We develop our products and conduct R&D in light of the lifecycle environmental impacts of our products.
- Purchasing:** Our purchasing activities reflect consideration for biodiversity and other aspects of environmental protection.
- Production:** We strive to minimize our environmental impact through improving energy efficiency and waste management.
- Logistics:** We strive to minimize our environmental impact through enhancing energy efficiency and promoting pollution prevention.
- Sales:** We endeavor to recycle resources efficiently and reduce waste.
- Management:** We will strive to improve our sustainability program through contributions that meet societal needs and by publicizing our activities as Team Subaru.

**Environmental Management**

Environmentally Friendly Automobiles

Climate Change

Resource Recycling

Water Resources

Biodiversity

Prevention of Pollution

FYE March 2021 Environmental Performance Data for Plants and Offices

**Management System**

**Environmental Management System**

SUBARU comprehensively manages the entire progress and direction of its environmental management measures through the Environment Committee and based on the cross-company integrated environmental management system (EMS).

The Executive Officer in charge of the Sustainability Division

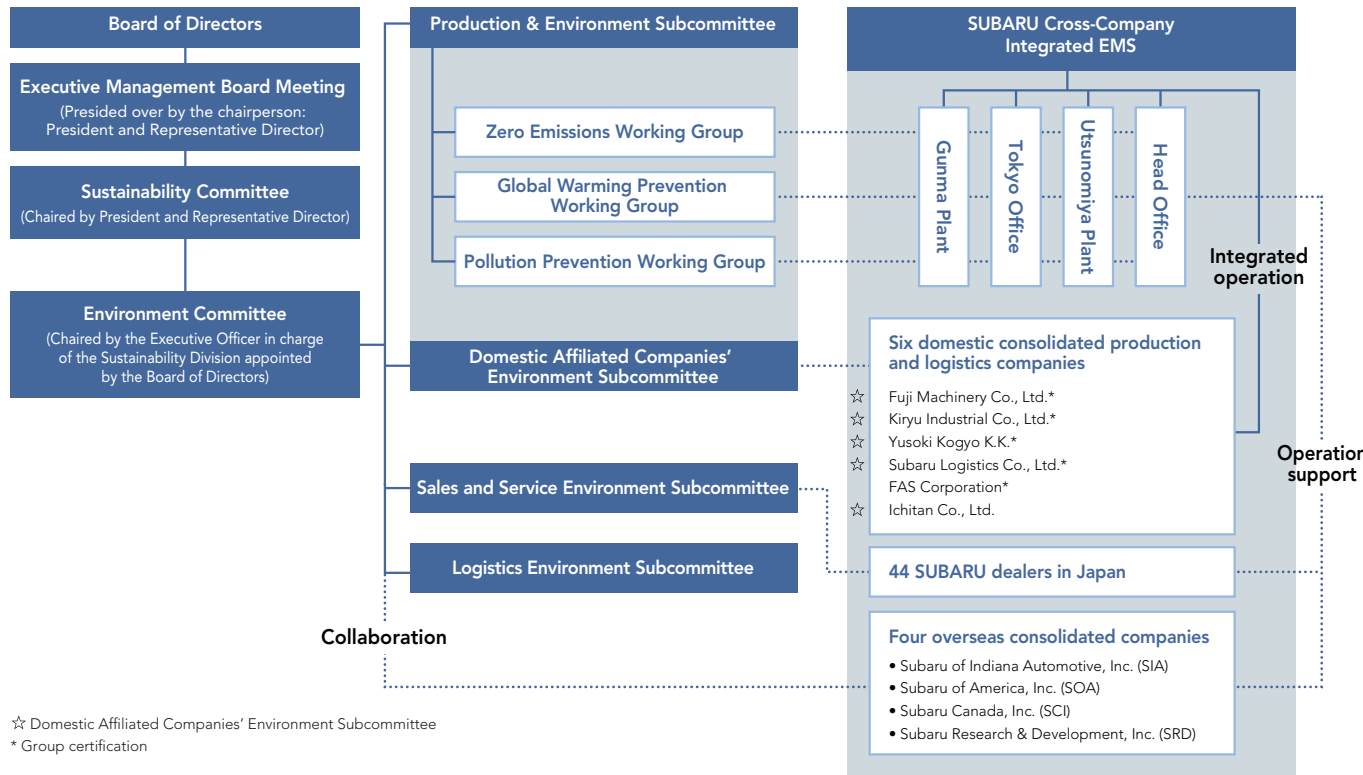
appointed by the Board of Directors oversees the integrated EMS and chairs the Environment Committee. In principle, the related issues are reviewed regularly, at least once a year, and details of discussions held by the Environment Committee are reported to the Sustainability Committee. Moreover, important issues are discussed and reported at the Executive Management Board Meeting and by the Board of Directors.

**Environmental Risk Management System**

SUBARU regularly identifies the environmental risks involved in its business activities (environmental accidents, pollution, noncompliance with laws and regulations, etc.) and fosters the management of the identified risks to prevent and minimize their materialization.

We also standardize the procedures to be followed when detecting an environmental risk and conduct drills in ordinary times so that we can promptly implement response measures in case of emergency and then take measures to prevent the reoccurrence of similar accidents, while preventing secondary risks from causing the spread of environmental pollution.

The Subaru Group's Environmental Management Organization

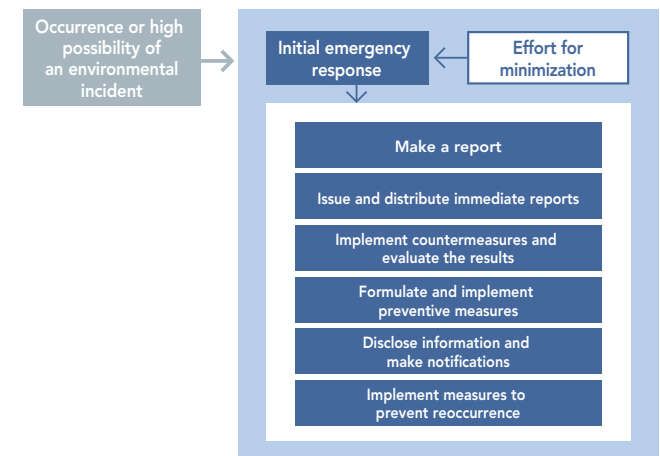


☆ Domestic Affiliated Companies' Environment Subcommittee  
\* Group certification

**Implementation of Environmental Audits**

- (1) Regular auditing based on the ISO14001 environmental management system
- (2) On-site contractors audits to ensure proper collection, transportation, and disposal of industrial waste
- (3) On-site audits of compliance with environmental laws, regulations, and ordinances

**Procedures to Be Followed in Case of an Environmental Accident**



**Environmental Management**

Environmentally Friendly Automobiles

Climate Change

Resource Recycling

Water Resources

Biodiversity

Prevention of Pollution

FYE March 2021 Environmental Performance Data for Plants and Offices

**Acquisition of External Certification for Environmental Management Systems**

SUBARU has been working to build an environmental management system, and its sites, suppliers, domestic and overseas consolidated production companies, and dealers have had their environmental management systems certified by external organizations.

**Major Certifications**

• **ISO14001**

SUBARU CORPORATION and its six consolidated production and logistics subsidiaries in Japan and three consolidated production and sales subsidiaries in North America have obtained ISO14001 certification for their environmental management systems. (The five domestic companies marked with an asterisk [\*] in the lower right table have obtained group certification.)

• **Eco Action 21<sup>\*1</sup>**

In 2011, 44 SUBARU dealers obtained Eco Action 21 certification, becoming the first automaker-affiliated dealers in Japan to do so. We also began implementing an initiative under the Eco Action 21 value chain model project fostered by the Japanese Ministry of the Environment, which the Ministry certified in 2016 as the first initiative implemented under the project in recognition of its results. We will receive instructions and support from the Institute for Promoting Sustainable Societies (IPSuS),<sup>\*2</sup> which is the certification body for Eco Action 21, to expand the related activities across the Subaru Group. At the same time, we will support our suppliers in achieving Eco Action 21 certification, thereby expanding the initiative across our value chain.

• **ISO50001<sup>\*3</sup>**

In 2012, Subaru of Indiana Automotive, Inc., which is our production base in North America, became the first automobile production plant in the U.S. to acquire certification for ISO50001, which is the international standard for energy management systems (EnMS).

• **ISO39001<sup>\*4</sup>**

Subaru Logistics Co., Ltd. obtained certification for ISO39001, the international standard for road traffic safety management systems, in 2015.

<sup>\*1</sup> Environmental conservation activity promotion program formulated by the Japanese Ministry of the Environment in which SMEs work on three themes: environmental management systems, environmental measures and environmental reporting.

<sup>\*2</sup> This organization examines, plans, and implements new initiatives to build sustainable societies by integrating initiatives related to businesses, such as Eco Action 21, with product- and service-related initiatives to be promoted via supply chains.

<sup>\*3</sup> International standard applicable to all organizations that sets the requirements to be met by business operators when conducting activities to build an energy management system, including the formulation of policies, targets, and plans for their energy use and the determination of management procedures.

<sup>\*4</sup> International standard for road traffic safety management systems. It requires organizations to appropriately manage the factors that could cause traffic accidents and reduce the related risks effectively and efficiently, thereby reducing the number of deaths and serious injuries caused by road traffic accidents.

→ [CSR Procurement](#)

**Establishment of EMSs and EnMSs by the Subaru Group**

**Plants and offices**

Category	Plants and offices				Retailers	
	SUBARU CORPORATION	Suppliers	Domestic Consolidated Production and Logistics Companies	Overseas Consolidated Production Companies	Domestic Consolidated Automobile Sales Companies	Overseas Consolidated Automobile Sales Companies
Certification obtained for EMSs/EnMSs	ISO14001	ISO14001, Eco Action 21 or self-certification	ISO14001	ISO14001 ISO50001	Eco Action 21	ISO14001
Target	Gunma Plant Tokyo Office Utsunomiya Plant Head Office	Green procurement Suppliers of materials	Fuji Machinery Co., Ltd.* Kiryu Industrial Co., Ltd.* Yusoki Kogyo K.K.* Subaru Logistics Co., Ltd.* FAS Corporation* Ichitan Co., Ltd. Six companies in total	Subaru of Indiana Automotive, Inc.	All SUBARU dealers 44 companies in total	Subaru of America, Inc. Subaru Canada, Inc. Two companies in total

\* Group certification

SUBARU CORPORATION and its affiliated companies marked with an asterisk (\*) carry out mutual internal audits on their EMSs within the scope required for ISO14001 group certification.

**Environmental Management**

Environmentally Friendly Automobiles

Climate Change

Resource Recycling

Water Resources

Biodiversity

Prevention of Pollution

FYE March 2021 Environmental Performance Data for Plants and Offices

**Environmental Management Systems Established by Dealers in Japan**

All 44 dealers in Japan have acquired Eco Action 21 certification. Under the certification system, they promote their environmental management systems and carry out environmental audits on a regular basis for environmental conservation and compliance with environmental laws and regulations.

Moreover, we collect data about domestic dealers' energy use, CO<sub>2</sub> emissions, waste generation, and water use through the Subaru Group's unique data system for environmental reporting and use the data to reduce our environmental impact.

**Environmental Management Systems Established by Retailers in the U.S. (SOA)**

Subaru of America, Inc. promotes the Eco-Friendly Retailer Program that encourages SUBARU retailers in the U.S. to reduce energy consumption, water usage, waste and other environmental impacts. A total of 205 companies, which is more than 30% of all retailers, participate in the program.

**Management of Chemical Substances**

A range of chemical substances are regulated by laws and regulations, including the REACH regulation,<sup>\*1</sup> ELV Directive,<sup>\*2</sup> and the Chemical Substance Control Law,<sup>\*3</sup> under which we are required to disclose information and ensure the appropriate management of chemical substances.

SUBARU is strengthening the management of its supply chain by using the IMDS<sup>\*4</sup> in order to identify which chemical substances are used in what amount in each of the several tens of thousands of parts that comprise its automobiles. Through this initiative, we are ensuring the non-use of prohibited substances (lead, mercury, cadmium, hexavalent chromium, etc.), promoting the replacement

of newly regulated substances with alternatives, and establishing a management system that helps us promptly disclose information about the use of substances that we should appropriately manage under REACH and other regulations. We are thereby reducing the use and enhancing the management of environmentally hazardous substances.

\*1 REACH regulation: European regulation on chemical substances requiring all chemical substances to be subject to management or restricted use commensurate to the risk that they pose to humans and the environment.

\*2 The End-of Life Vehicles (ELV) Directive: European Union (EU) directive brought into force in 2000 to reduce the environmental impact from the scrapping of end-of-life vehicles in the EU. It aims to prohibit the use of hazardous substances and reduce the generation of waste by encouraging the reuse and recycling of end-of-life vehicles and their parts.

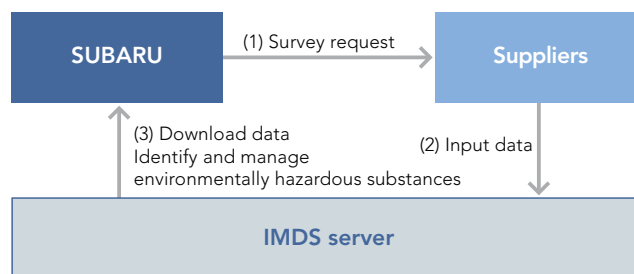
\*3 The Act on the Evaluation of Chemical Substances and Regulation of Their Manufacture, etc. (Chemical Substance Control Law) is a law whose purpose is to prevent environmental pollution caused by chemical substances that could harm human health or interfere with the habitat or growth of flora and fauna.

\*4 IMDS: International Material Data System, an international materials database for the automobile industry.

→ [Prevention of Pollution](#)

☐ [International Material Data System](#)

**Management of Environmentally Hazardous Substances through IMDS**



**Targets and Results**

**I. Environment Action Plan 2030 and Other Key Environmental Initiatives**

SUBARU initiated its new medium-term environmental plan in FYE March 2022. This plan is formulated around two timelines that are aligned with environmental issues.

**Environment Action Plan 2030:**

This is a Groupwide plan with a medium-to-long-term perspective and initiatives that spiral upward to address future expectations.

**Other key environmental initiatives:**

These granular initiatives are from a short-to-medium-term perspective and are designed to meet current expectations.

The two main features of Environment Action Plan 2030 are milestone goals to achieve by 2050 and moving targets that change according to the expectations of society.

Through initiatives based on the new environmental plan, SUBARU will sincerely address the expectations of current and future generations and further contribute to the realization of a sustainable society.

**II. The 6th Voluntary Plan for the Environment (FYE March 2018 to FYE March 2021)**

SUBARU has been implementing voluntary environmental conservation plans and initiatives called Voluntary Plans for the environment since FYE March 1994. SUBARU completed the 6th plan in FYE March 2021, and achieved almost all of the goals of the plan.

**Environmental Management**

Environmentally Friendly Automobiles

Climate Change

Resource Recycling

Water Resources

Biodiversity

Prevention of Pollution

FYE March 2021 Environmental Performance Data for Plants and Offices

Key Initiatives of Environment Action Plan 2030 (FYE March 2022)

Climate Change

Field	Long-Term Vision	Environment Action Plan 2030				
		Primary Category	Subcategory		Components of Primary Initiatives	
			Bases	Goals by Base		
Scope 1 and 2 (Plants and offices)	Target carbon neutrality by FYE March 2051.	● Reduce CO <sub>2</sub> emissions by 30% in FYE March 2031 compared with FYE March 2017 (total volume basis).	Plants	Reduce CO <sub>2</sub> emissions from plants in Japan.	<ul style="list-style-type: none"> <li>● Reduce CO<sub>2</sub> emissions from SUBARU plants<sup>*1</sup> by 30% in FYE March 2031 compared with FYE March 2017 (total volume basis).</li> </ul>	<ul style="list-style-type: none"> <li>● Upgrade cogeneration equipment.</li> <li>● Switch to LED lighting.</li> <li>● Expand solar power generation facilities.</li> <li>● Upgrade equipment.</li> <li>● Consolidate production lines.</li> <li>● Improve the energy efficiency of existing facilities.</li> <li>● Reduce standby power.</li> <li>● Purchase carbon-free electricity.</li> </ul>
				Reduce CO <sub>2</sub> emissions from plants overseas.	<ul style="list-style-type: none"> <li>● Reduce CO<sub>2</sub> emissions from Group plants in Japan<sup>*2</sup> in FYE March 2031 by 10% compared with FYE March 2017 (total volume basis).</li> </ul>	<ul style="list-style-type: none"> <li>● Continue energy-saving activities.</li> <li>● Share best practices.</li> <li>● Initiate reduction strategy studies.</li> </ul>
				Reduce CO <sub>2</sub> emissions from the head office building. <sup>*4</sup>	<ul style="list-style-type: none"> <li>● Reduce CO<sub>2</sub> emissions from overseas Group plants<sup>*3</sup> in FYE March 2031 by 30% compared with FYE March 2017 (total volume basis).</li> </ul>	<ul style="list-style-type: none"> <li>● Switch to LED lighting.</li> <li>● Expand solar power generation facilities.</li> <li>● Improve the energy efficiency of existing facilities.</li> <li>● Initiate additional reduction strategy studies.</li> </ul>
				Reduce CO <sub>2</sub> emissions from dealerships in Japan.	<ul style="list-style-type: none"> <li>● Reduce CO<sub>2</sub> emissions to zero.</li> </ul>	<ul style="list-style-type: none"> <li>● Continue energy-saving activities.</li> <li>● Purchase carbon-free electricity.</li> <li>● Use Green Heat Certificate and Green Power Certificate.</li> </ul>
Scope 3 (Products)	On a well-to-wheel <sup>5</sup> basis, we will pursue our goal of reducing the average CO <sub>2</sub> emissions from new passenger cars by at least 90% by 2050, compared with 2010. <sup>6</sup>	● By 2030, we will pursue our goal of increasing the ratio of electric vehicles (EV) and hybrid cars (HEVs) to at least up to 40% of the gross number of vehicles sold globally.  ● In the early 2030s, all commercial SUBARU cars <sup>7</sup> will be equipped with electrification technology. <sup>8</sup>	Automobiles	Improve fuel economy and equip vehicles with electrification technology.	<ul style="list-style-type: none"> <li>● Begin marketing SHEVs.</li> <li>● Increase models equipped with electrification technology.</li> <li>● Improve the fuel efficiency of internal combustion engines.</li> </ul>	<ul style="list-style-type: none"> <li>● Mass production of SHEVs.</li> <li>● Conduct research to add electric vehicles to lineup.</li> <li>● Equip more vehicles with environmentally responsible engines.</li> </ul>
				Clean energy use.	<ul style="list-style-type: none"> <li>● Conduct research and development to launch BEVs.</li> <li>● Begin marketing BEVs.</li> </ul>	<ul style="list-style-type: none"> <li>● Mass production and marketing of BEVs.</li> <li>● Research BEVs.</li> </ul>
				Road traffic improvement – IT technology (Self-driving technology and preventive safety technology).	<ul style="list-style-type: none"> <li>● Develop driving assistance technology and preventive safety technology centered on the EyeSight Advanced Driver Assistance System and expand into more markets.</li> </ul>	<ul style="list-style-type: none"> <li>● Enhance recognition performance of next generation EyeSight to alleviate traffic congestion and improve traffic flow. Begin marketing and expand use of highly functional driver assist controls.</li> </ul>

\*1 Gunma Plant, Tokyo Office, Utsunomiya Plant

\*2 Yusoki Kogyo K.K., Fuji Machinery Co., Ltd., Ichitan Co., Ltd., Kiryu Industrial Co., Ltd., Subaru Logistics Co., Ltd.

\*3 Subaru of Indiana Automotive, Inc.

\*4 Head office floors of the Ebisu Subaru Building (Shibuya-ku, Tokyo)

\*5 Well-to-Wheel: Approach to calculating CO<sub>2</sub> emissions including the emissions produced by the generation of electricity to be used by EVs and other vehicles.

\*6 Reduce total CO<sub>2</sub> emissions calculated based on the fuel efficiency (notified value) of all SUBARU automobiles sold across the world by 90% or more relative to the 2010 levels in 2050. Changes in the sales quantity due to changes in the market environment shall be taken into consideration, while minor changes in running distance shall not.

\*7 Excluding models supplied by OEMs

\*8 Refers to the technology used to foster the use of electricity for EVs, HEVs, and others.

Resource Recycling

Field	Long-Term Vision	Environment Action Plan 2030	
		Medium-Term Goals	Components of Primary Initiatives
Production	<ul style="list-style-type: none"> <li>● Help create a recycling-oriented society with clean production plants.</li> </ul>	<ul style="list-style-type: none"> <li>● Zero emissions from production plants<sup>*4</sup> (zero landfill waste either directly or indirectly).</li> <li>● Appropriately manage water use in production plants.<sup>*5</sup></li> </ul>	<ul style="list-style-type: none"> <li>● Maintain zero emissions at production plants in Japan and overseas (zero landfill waste either directly or indirectly).</li> <li>● Study effective use of waste plastic.</li> <li>● Continue to appropriately manage water use in production plants.</li> </ul>

\*1 Including material, chemical and plastic recycling.

\*2 Excluding models supplied by OEMs.

\*3 Materials and suppliers with lower CO<sub>2</sub> emissions and environmental pollution at the manufacturing stage.

\*4 SUBARU: Gunma Plant, Tokyo Office, Utsunomiya Plant  
Subaru of Indiana Automotive, Inc.

\*5 SUBARU: Gunma Plant, Tokyo Office, Utsunomiya Plant  
Subsidiaries: Yusoki Kogyo K.K., Fuji Machinery Co., Ltd., Ichitan Co., Ltd., Kiryu Industrial Co., Ltd., Subaru Logistics Co., Ltd., Subaru of Indiana Automotive, Inc.

Pollution Prevention and Reduction of Hazardous Chemical Use

Field	Long-Term Vision	Environment Action Plan 2030	
		Medium-Term Goals	Components of Primary Initiatives

\*Zero emissions into the environment, accidents, complaints, or violations of statutory standards.

Disclosure and Discussion of Coexistence with Communities and Environmental Information

Field	Environment Action Plan 2030	
	Medium-Term Goals	Components of Primary Initiatives
	<ul style="list-style-type: none"> <li>● Earn greater trust from society through environmental information disclosure and dialogue.</li> </ul>	<ul style="list-style-type: none"> <li>● Build trust through sustainability reports and other sustainability improvement channels.</li> <li>● Collaborate with external evaluation organizations.</li> <li>● Promote constructive dialogue with investors.</li> </ul>

**Environmental Management**

Environmentally Friendly Automobiles

Climate Change

Resource Recycling

Water Resources

Biodiversity

Prevention of Pollution

FYE March 2021 Environmental Performance Data for Plants and Offices

Other Primary Initiatives (FYE March 2022)

Climate Change

Field	Item	Components of Primary Initiatives
Distribution	<ul style="list-style-type: none"> <li>Implement measures to reduce CO<sub>2</sub> in line with the Energy Saving Law.</li> </ul>	<ul style="list-style-type: none"> <li>Reduce CO<sub>2</sub> emission intensity by 1% every year, using FYE March 2007 as a benchmark.</li> </ul>

Resource Recycling

Field	Item	Components of Primary Initiatives
Products (automobiles)	<ul style="list-style-type: none"> <li>Recyclability improvement</li> </ul>	<ul style="list-style-type: none"> <li>Continue to implement measures to comply with the Automobile Recycling Law.</li> <li>Continue to implement measures to make parts and materials more detachable, separable, and sortable.</li> <li>Contribute to a 95% recycling efficiency rate each year.</li> <li>Make efforts for CFRP recycling technology.</li> </ul>
	<ul style="list-style-type: none"> <li>Promotion of life-cycle assessment</li> </ul>	<ul style="list-style-type: none"> <li>Promote disclosure of life-cycle assessment (LCA) data.</li> </ul>
Production	<ul style="list-style-type: none"> <li>Waste control and proper disposal</li> </ul>	<ul style="list-style-type: none"> <li>Continue to control waste generation through means such as improving yield and packing style, and properly dispose of waste.</li> </ul>

Pollution Prevention and Reduction of Hazardous Chemical Use

Field	Item	Components of Primary Initiatives
Products (automobiles)	<ul style="list-style-type: none"> <li>Promote the introduction of low-emission vehicles to improve air quality.</li> </ul>	<ul style="list-style-type: none"> <li>Japan: Complete the advanced development of PN regulation compliant vehicles (Vehicles manufactured by SUBARU).</li> <li>U.S.: Complete development of turbo engines with stricter emission regulation levels.</li> <li>Other overseas: Introduce low-emission vehicles to improve air quality in countries and regions.</li> </ul>
	<ul style="list-style-type: none"> <li>Promote the management and reduction in the use of environmentally hazardous substances.</li> </ul>	<ul style="list-style-type: none"> <li>Improve management of chemical substances contained in products.</li> <li>Promote switching to substances with lower environmental impact.</li> </ul>
Production	<ul style="list-style-type: none"> <li>Further reduce per unit of VOC emissions (g/m<sup>2</sup>) at production lines.</li> </ul>	<ul style="list-style-type: none"> <li>Reduce unit VOC emissions (year on year).</li> </ul>
	<ul style="list-style-type: none"> <li>Continue to reduce emissions of PRTR substances into the environment.</li> </ul>	<ul style="list-style-type: none"> <li>Identify and manage the chemical substances regulated by the PRTR law and promote further reduction in the use of these substances.</li> </ul>

Collaborate with Customers and Promote Environmental Management

Field	Item	Components of Primary Initiatives
Procurement	<ul style="list-style-type: none"> <li>Request suppliers in Japan and overseas to build, maintain, and strengthen an environmental management system (EMS).</li> </ul>	<ul style="list-style-type: none"> <li>Continue to establish and fully maintain the EMS including with new suppliers.</li> <li>Request that the entire supply chain improve environmental management throughout the product life cycle.</li> </ul>
	<ul style="list-style-type: none"> <li>Reduce environmentally hazardous substances.</li> </ul>	<ul style="list-style-type: none"> <li>Expand the range of target parts and raw materials with business partners regarding the management and reduction of contained environmentally hazardous substances.</li> </ul>
Sales (automobiles)	<ul style="list-style-type: none"> <li>Apply the supplier CSR guidelines and green procurement guidelines.</li> </ul>	<ul style="list-style-type: none"> <li>Revise the guidelines according to changes in the social environment and corporate policy, and request suppliers to deploy, disseminate, and comply with the guidelines.</li> </ul>
	<ul style="list-style-type: none"> <li>Provide support to SUBARU dealers' environmental activities.</li> </ul>	<ul style="list-style-type: none"> <li>Support all dealerships maintain Eco Action 21 certification.</li> <li>Confirm the legality of dealers' zero emission activities.</li> </ul>
Management	<ul style="list-style-type: none"> <li>Operate and upgrade environmental management systems.</li> </ul>	<ul style="list-style-type: none"> <li>Maintain ISO14001 integrated certification for Subaru Group.</li> <li>Make continuous improvements to the Environmental Management System.</li> </ul>

**Environmental Management**

Environmentally Friendly Automobiles

Climate Change

Resource Recycling

Water Resources

Biodiversity

Prevention of Pollution

FYE March 2021 Environmental Performance Data for Plants and Offices

The 6th Voluntary Plan for the Environment (FYE March 2018 to FYE March 2021) Global Warming Measures

Field	Item	FYE March 2021		
		Target	Results	
Products	Fuel economy improvement	<ul style="list-style-type: none"> <li>Continue to improve fuel economy through full model changes and annual improvements.</li> </ul>	<ul style="list-style-type: none"> <li>Rollout the downsized turbo engine, the next Levorg, and Forester.</li> <li>Start and promote advanced development of a strong hybrid, aiming at mass production.</li> </ul>	<ul style="list-style-type: none"> <li>Equipped the downsized turbo engine that meets FYE March 2021 fuel efficiency standards and rolled out the next Levorg and Forester.</li> <li>Prioritized development of a strong hybrid and moved forward according to plan.</li> </ul>
	Clean energy use	<ul style="list-style-type: none"> <li>Promote introduction of electric vehicles.</li> </ul>	<ul style="list-style-type: none"> <li>Promote joint development of EVs with Toyota Motor Corporation and move to mass production of THS-based vehicles, aiming to achieve the environmental goals announced publicly on January 20, 2020.</li> </ul>	<ul style="list-style-type: none"> <li>We are moving forward according to plan in jointly developing EVs with Toyota Motor Corporation and pivoting to mass production development with the goal of beginning sales in mid-2022.</li> </ul>
	Road traffic improvement – IT technology (Self-driving technology and preventive safety technology)	<ul style="list-style-type: none"> <li>Make efforts to expand deployment of Advanced Driver Assistance System and development of self-driving technology, further advance technological development to prevent accidents, and contribute to CO<sub>2</sub> reduction through preventing traffic congestion due to accidents and improving traffic flow with driving assistance technology.</li> </ul>	<ul style="list-style-type: none"> <li>Promote development that aims at zero fatal traffic accidents*2 by 2030.</li> <li>Continue to promote development of Advanced Driver Assistance System technology, focusing mainly on rollout of the next-generation EyeSight and popularization and dissemination of accident damage reduction technology using third-party assessment.</li> <li>Continue to promote activities based on industry/government/academia initiatives such as SIP/ASV.</li> </ul>	<ul style="list-style-type: none"> <li>We rolled out the new Levorg in FYE March 2021 equipped with the next-generation EyeSight, which features enhanced accident avoidance at intersections, emergency pre-crash steering, and green light notification functions.</li> <li>We launched the Advanced Driver Assistance System EyeSight X that features an active lane change assist and a driver error monitoring system.</li> </ul>
Production	Production facilities	<ul style="list-style-type: none"> <li>Reduce CO<sub>2</sub> emissions per unit of production at domestic production facilities.</li> </ul>	<ul style="list-style-type: none"> <li>Reduce CO<sub>2</sub> emissions per unit of production at domestic production facilities by 14% by FYE March 2021 from the FYE March 2007 level.</li> </ul>	<ul style="list-style-type: none"> <li>Reduced CO<sub>2</sub> emissions per unit of production at domestic production facilities by 44% through FYE March 2021 compared with the FYE March 2007 level.</li> </ul>
		<ul style="list-style-type: none"> <li>Promote activities to reduce CO<sub>2</sub> emissions at overseas production facilities.*1</li> </ul>	<ul style="list-style-type: none"> <li>Continue to consider introducing energy saving facilities and renewable energy power systems while studying approaches in this context to address inevitable increases in energy use required to increase production.</li> </ul>	<ul style="list-style-type: none"> <li>We have continued to consider introducing energy-saving facilities and renewable energy power systems to reduce CO<sub>2</sub> emissions by 30% in FYE March 2031 compared with FYE March 2017.</li> </ul>
Distribution/Sales	Distribution	<ul style="list-style-type: none"> <li>Promote CO<sub>2</sub> emissions reduction activities synchronized with the Energy Saving Law.</li> </ul>	<ul style="list-style-type: none"> <li>Aim for 1% emissions reduction every fiscal year with the FYE March 2007 result as a benchmark.</li> </ul>	<ul style="list-style-type: none"> <li>Achieved the annual 1% emission reduction target.</li> <li>CO<sub>2</sub> emissions per unit for FYE March 2021 was 27.82 kg/unit, which was below the target of 28.29 kg/per unit (1% reduction every fiscal year from the FYE March 2007 benchmark).</li> </ul>

\*1 Subaru of Indiana Automotive, Inc.

\*2 Reducing to zero the number of fatal accidents occurring while a driver or passenger in a SUBARU and the number of fatalities among pedestrians, cyclists, and the like arising from collisions with a SUBARU vehicle.



Environmental  
ManagementEnvironmentally  
Friendly AutomobilesClimate  
ChangeResource  
RecyclingWater  
Resources

Biodiversity

Prevention  
of PollutionFYE March 2021 Environmental  
Performance Data for Plants and Offices

## The 6th Voluntary Plan for the Environment (FYE March 2018 to FYE March 2021) Resource Recycling

Field	Item	FYE March 2021		
		Target	Results	
Products	Recyclability improvement	<ul style="list-style-type: none"> <li>Continue to implement measures to comply with the Automobile Recycling Law.</li> <li>Continue to implement measures to make parts and materials more detachable, separable, and sortable.</li> </ul>	<ul style="list-style-type: none"> <li>Build collection schemes as necessary in relevant locations for used EV/HV batteries for large vehicles in line with sales of MHEV/PHEV.</li> <li>Continue to promote the development of models designed with consideration for ease of dismantling.</li> <li>Continue to promote the use of recycled materials in resin parts in line with trends in the social environment, laws, and regulations.</li> </ul>	<ul style="list-style-type: none"> <li>Continued to achieve an actual recycling rate over 95% in FYE March 2021.</li> <li>Continued to promote vehicle development that incorporates design for recycling, including easy dismantling.</li> <li>We have set internal goals for using recycled materials for resin parts, and are continuing initiatives to switch over.</li> </ul>
	Promotion of life-cycle assessment	<ul style="list-style-type: none"> <li>Make efforts for CFRP recycling technology.</li> <li>Promote disclosure of life-cycle assessment (LCA) data.</li> </ul>	<ul style="list-style-type: none"> <li>Continue to promote technological development that considers easy dismantling.</li> <li>Only the new Levorg, to be released in 2020, will be subject to LCA data disclosure.</li> </ul>	<ul style="list-style-type: none"> <li>Continued to promote technology development that considers easy dismantling.</li> <li>Calculated and disclosed LCA data for the new Levorg, the only vehicle subject to LCA data disclosure in 2020.</li> </ul>
Production	Domestic dealerships and dismantlers	<ul style="list-style-type: none"> <li>Establish processing schemes for difficult material to process, etc.</li> </ul>	<ul style="list-style-type: none"> <li>Japan: Start to apply the used EV/HV lithium-ion batteries disposal scheme.</li> <li>Expand the acquisition and utilization of approval for waste disposal practice, as set forth in the Waste Management and Public Cleansing Act.</li> </ul>	<ul style="list-style-type: none"> <li>Partial operation initiated based on actual demand for acquisition and utilization</li> </ul>
	Production facilities	<ul style="list-style-type: none"> <li>Continue the appropriate disposal of waste and reducing waste generation.</li> <li>Continue zero landfill (zero landfill waste either directly or indirectly) at both domestic and overseas production facilities.</li> <li>Manage volume of water used at both domestic and overseas production facilities.</li> </ul>	<ul style="list-style-type: none"> <li>Continue to appropriately dispose of waste and reduce waste generation through sorting.</li> <li>Continue to achieve zero landfill at both domestic and overseas production facilities.</li> <li>Properly manage volume of water use at production facilities in and outside Japan.</li> </ul>	<ul style="list-style-type: none"> <li>Continued to carry out appropriate waste management and maintain waste reduction through sorting.</li> <li>Maintained zero landfill emissions at production facilities in and outside Japan.</li> <li>Promoted appropriate management of water usage at production facilities in and outside Japan.</li> </ul>

\* Waste Management and Public Cleansing Act (Promulgated on December 25, 1970)

## The 6th Voluntary Plan for the Environment (FYE March 2018 to FYE March 2021) Pollution Prevention and Reduction of Hazardous Chemical Use

Field	Item	FYE March 2021		
		Target	Results	
Products	Reduction in emissions	<ul style="list-style-type: none"> <li>Japan: Continue to increase the number of WLTP low emission standard certified models.</li> <li>Complete advanced development of SUL EV-compliant vehicles to be rolled out in North America.</li> </ul>	<ul style="list-style-type: none"> <li>Expanded the number of WLTP low emission standard certified models.</li> <li>Completed the advanced development of SUL EVs for North America.</li> <li>Rolled out vehicles with GPF for delivery to Europe.</li> </ul>	
	Reduction in the use of environmentally hazardous substances	<ul style="list-style-type: none"> <li>Promote the management and reduction in the use of environmentally hazardous substances.</li> </ul>	<ul style="list-style-type: none"> <li>Enhance chemical substance management using IMDS.</li> <li>Promote alternative substances with even less environmental load.</li> </ul>	<ul style="list-style-type: none"> <li>Built and began using an IMDS system enabling chemical components management for the complete range of parts.</li> <li>Completed the switch to ethanol for washer fluid for Europe.</li> <li>Promoted environmental measures in line with the 2020 prohibitions of the ELV Directive, such as the development of lead-free alternative laminated glass solder.</li> </ul>
Production	Automobiles	<ul style="list-style-type: none"> <li>Further reduce per unit of VOC emissions (g/m<sup>2</sup>) at production lines.</li> </ul>	<ul style="list-style-type: none"> <li>FYE March 2021 target: 48.4 g/m<sup>2</sup></li> </ul>	<ul style="list-style-type: none"> <li>FYE March 2021 result: 47.4 g/m<sup>2</sup></li> <li>Continued to improve thinner recovery when cleaning color-change piping at the Gunma Paint Plant.</li> </ul>
	Management and emission reduction of environmentally hazardous substances at production facilities	<ul style="list-style-type: none"> <li>Continue to reduce emissions of PRTR substances into the environment.</li> <li>Promote activities targeting the elimination of occurrences of hazardous substances leaking off site, complaints, and exceeding legal standards.</li> </ul>	<ul style="list-style-type: none"> <li>Continue aggregation management control of chemical substances regulated by the PRTR law.</li> <li>Continue to implement environmental risk reduction activities (instruction, education, and coexistence with community). The FYE March 2021 target for reducing instances of the issues listed on the left was zero in all cases.</li> </ul>	<ul style="list-style-type: none"> <li>Improved PRTR system and continued aggregation.</li> <li>Gunma Yajima Plant septic tank defect countermeasures</li> <li>Improved work procedures at Utsunomiya Plant</li> <li>Reduced ventilation system noise at headquarters</li> <li>Quickly addressed odors identified by factory patrols</li> <li>Enhanced building repairs</li> <li>Enhanced vehicle oil leakage preventive maintenance</li> </ul>

Environmental  
ManagementEnvironmentally  
Friendly AutomobilesClimate  
ChangeResource  
RecyclingWater  
Resources

Biodiversity

Prevention  
of PollutionFYE March 2021 Environmental  
Performance Data for Plants and Offices

## The 6th Voluntary Plan for the Environment (FYE March 2018 to FYE March 2021) Environmental Management

Field	Item	FYE March 2021		
		Target	Results	
Procurement	Green procurement activities	<ul style="list-style-type: none"> <li>Request both domestic and overseas suppliers to establish, maintain, and strengthen environmental management systems (EMS).</li> </ul>	<ul style="list-style-type: none"> <li>Continue to maintain the structure to establish EMS including new suppliers.</li> <li>Revise the guidelines as necessary after checking with related departments for any revision requirements, and issue a new version of the guidelines.</li> </ul>	<ul style="list-style-type: none"> <li>Continued to maintain the EMS encompassing 396 companies, including new suppliers.</li> <li>Confirmation with relevant departments did not result in revision of the guidelines in FYE March 2021.</li> </ul>
		<ul style="list-style-type: none"> <li>Reduce environmentally hazardous substances.</li> </ul>	<ul style="list-style-type: none"> <li>Continue to investigate the content of environmentally hazardous substances and promote switching to alternatives appropriately in response to global regulation trends.</li> </ul>	<ul style="list-style-type: none"> <li>Requested IMDS input and SVHC content survey as planned, and proceeded to switch to alternative materials.</li> </ul>
		<ul style="list-style-type: none"> <li>Apply the supplier CSR guidelines and green procurement guidelines.</li> </ul>	<ul style="list-style-type: none"> <li>Revise and issue guidelines, and distribute the new version of the guidelines to suppliers as necessary in light of social situations.</li> </ul>	<ul style="list-style-type: none"> <li>We used video briefing sessions and compliance surveys to ask our suppliers to develop, disseminate, and comply with the guidelines.</li> </ul>
Distribution/ Sales	Promotion of environmental conservation activities among dealerships	<ul style="list-style-type: none"> <li>Provide support to SUBARU dealerships' environmental activities.</li> </ul>	<ul style="list-style-type: none"> <li>Provide individual companies with education and other support to ensure that each dealer can undergo the Inspection for Transition to the 2017 Version of the Eco Action 21 Guidelines without fail.</li> </ul>	<ul style="list-style-type: none"> <li>In Japan, 31 out of 44 dealers completed the inspection for the transition to the 2017 Version of the Eco Action 21 Guidelines in FYE March 2020, and 13 dealers completed it in FYE March 2021, thus completing the shift to the 2017 guidelines.</li> </ul>
	Promotion of environmental conservation activities, including biodiversity conservation, in cooperation with local communities	<ul style="list-style-type: none"> <li>Continue to participate in environmental events, and make friendly exchanges with and support factory tours of residents near factories.</li> <li>Continue to conduct cleanup and greening activities, including biodiversity conservation efforts, near factories.</li> <li>Support activities of and work with environmental organizations.</li> </ul>	<ul style="list-style-type: none"> <li>Continue school visit programs to provide environmental classes and factory tours.</li> <li>Continue to carry out cleanup activities around factories and offices.</li> <li>Contribute to forest conservation in regions where SUBARU has close ties with local communities.</li> </ul>	<ul style="list-style-type: none"> <li>Continued environmental lectures and remote visits to the Gunma Visitor Center.</li> <li>Continued to carry out community cleanup activities.</li> <li>Despite the COVID-19 pandemic, we have continued to work with local communities where we have close ties.</li> </ul>
Management	Disclosure of environmental information	<ul style="list-style-type: none"> <li>Disclose environmental information through regular publication of environmental reports and other documents in a timely manner.</li> </ul>	<ul style="list-style-type: none"> <li>Continue to carry out timely information disclosure in the CSR report.</li> <li>Promote corporate communication activities appropriately, utilizing various content materials effectively.</li> </ul>	<ul style="list-style-type: none"> <li>Sustainability Report (Japanese version of this publication) was published in September 2021. The English version will be released in October.</li> <li>Answer questions from environmental NGOs such as CDP and ESG evaluation organizations. Publish the answers on our website as necessary.</li> </ul>
	Disclosure of environmental information	<ul style="list-style-type: none"> <li>Improve and enhance the contents of Environmental Report (to be in compliance with Environmental Reporting Guidelines, and inclusion of Group companies in the scope of reporting).</li> </ul>	<ul style="list-style-type: none"> <li>Consider approaches to increase readability of disclosed content.</li> </ul>	<ul style="list-style-type: none"> <li>Ongoing content improvement for compatibility with TCFD and integrated reports.</li> </ul>
	Promotion of environmental education and awareness activities	<ul style="list-style-type: none"> <li>Participate in environmental events and publicize corporate environmental activities.</li> </ul>	<ul style="list-style-type: none"> <li>Consider methods of gaining understanding of SUBARU's environmental initiatives among a wider audience and put them into practice.</li> </ul>	<ul style="list-style-type: none"> <li>Considered methods compatible with the COVID-19 pandemic.</li> </ul>
	Promotion of environmental education and awareness activities	<ul style="list-style-type: none"> <li>Continue environmental and social education under the in-house education system.</li> </ul>	<ul style="list-style-type: none"> <li>Continue to use e-learning and other methods to deliver environmental education and aim to further enhance the education provided.</li> <li>Implement initiatives aimed at increasing understanding of the Waste Management and Public Cleansing Act.</li> </ul>	<ul style="list-style-type: none"> <li>Promoted higher levels of understanding through e-learning.</li> </ul>
Establishment of an Environmental Management System	Establishment of an Environmental Management System	<ul style="list-style-type: none"> <li>Each and every SUBARU site to maintain ISO14001 integrated certification.</li> </ul>		
		<ul style="list-style-type: none"> <li>Make continuous improvements to the Environmental Management System.</li> <li>Increase cooperation with subsidiaries and suppliers, and maintain and improve the establishment of consolidated environmental management system.</li> </ul>	<ul style="list-style-type: none"> <li>Upgrade and deploy appropriate environmental management systems.</li> </ul>	<ul style="list-style-type: none"> <li>Continued the certification of Group companies.</li> </ul>

\* Eco Action 21 (EA21): An environmental management system designed by the Ministry of the Environment with reference to ISO14001 that is easy for small and medium-sized enterprises to employ.

Environmental Management

Environmentally Friendly Automobiles

Climate Change

Resource Recycling

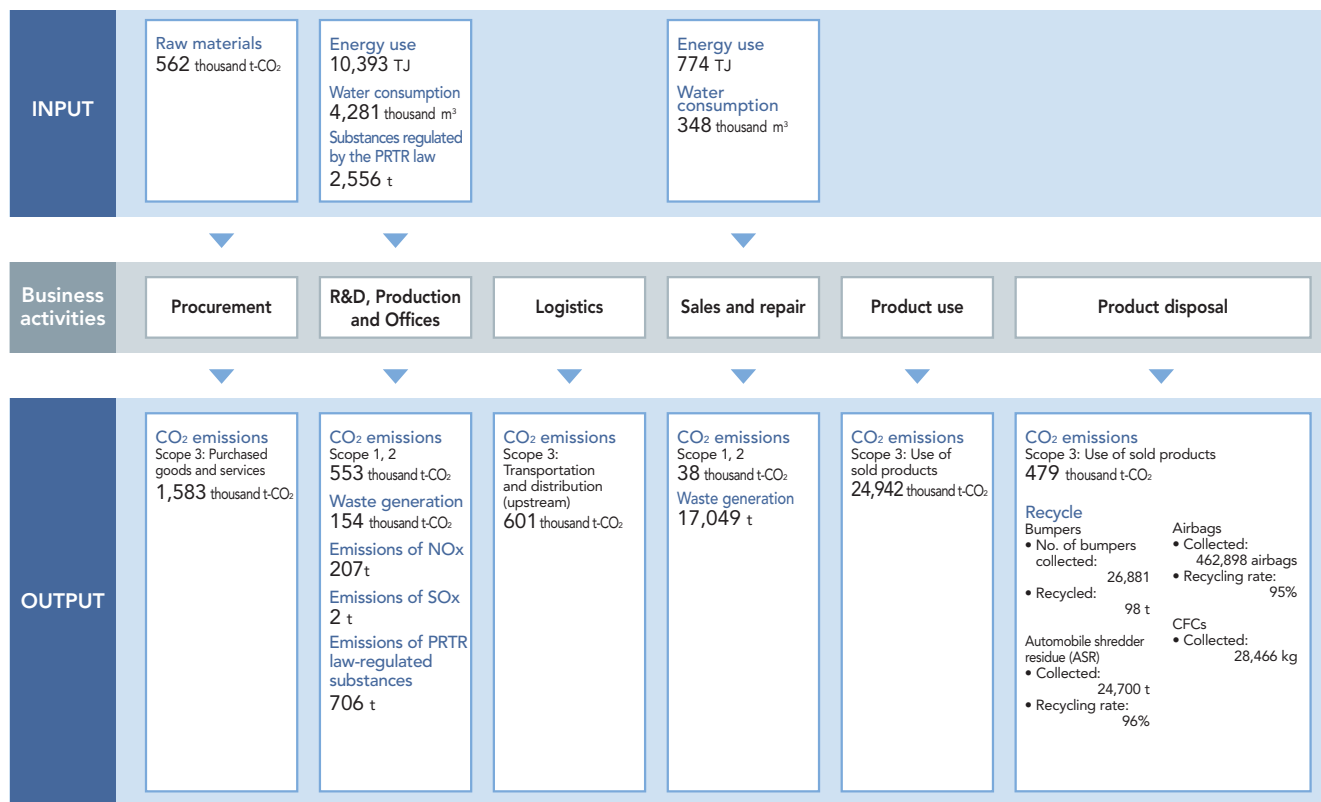
Water Resources

Biodiversity

Prevention of Pollution

FYE March 2021 Environmental Performance Data for Plants and Offices

Subaru Group Material Flow



Scope:

[ Procurement ] SUBARU: Gunma Plant, Utsunomiya Plant, Handa Plant, Handa West Plant

[ R&D and Production ] SUBARU: Gunma Plant, Utsunomiya Plant, Handa Plant, Handa West Plant, Tokyo Office, Ebisu Subaru Building, SUBARU Academy, Parts Distribution Center, Omiya Subaru Building

Group companies in Japan: Yusoki Kogyo K.K., Fuji Machinery Co., Ltd., Ichitan Co., Ltd., Kiryu Industrial Co., Ltd., Subaru Logistics Co., Ltd.

Overseas group companies: Subaru of Indiana Automotive, Inc., Subaru of America, Inc., Subaru Canada, Inc., Subaru Research & Development, Inc.

[ Logistics ] Land transport (in Japan) and marine transport

[ Sales and repair ] Domestic dealerships

[ Product use and sale ] Sold SUBARU vehicles

Environmental Investment

Calculation Method

SUBARU has its own guidelines for calculating and tabulating the amount of environmental investments made by the company. These guidelines are aligned with SUBARU's environmental conservation organization.

Calculation Results

FYE March 2021 environmental investment increased ¥637 million year on year to ¥3.6 billion. Key factors included environmental investment in wastewater treatment and noise control at the Gunma Plant and Subaru of Indiana Automotive, Inc.

Subaru Group Environmental Investment

Item	Category	(Unit: million yen)	
		Consolidated	
		FYE March 2020	FYE March 2021
(1) Cost in the business area	(i) Pollution prevention cost	123	898
	(ii) Global environment conservation cost	378	189
	(iii) Resource recycling cost	1	42
(2) R&D cost	R&D cost to reduce environmental impact	2,506	2,524
(3) Environmental remediation costs	Costs for remediating soil and groundwater pollution	14	6
Grand total		3,022	3,659

Note: Due to rounding, the sum may not exactly match the corresponding total. FYE March 2020 results have been revised because of the inclusion of overseas group companies.

Scope

SUBARU: SUBARU CORPORATION

Domestic group companies: Yusoki Kogyo K.K., Fuji Machinery Co., Ltd., Ichitan Co., Ltd., Kiryu Industrial Co., Ltd., Subaru Logistics Co., Ltd.

Overseas group companies: Subaru of Indiana Automotive, Inc., Subaru of America, Inc., Subaru of Canada, Inc., Subaru Research & Development, Inc.

**Environmental  
Management**Environmentally  
Friendly AutomobilesClimate  
ChangeResource  
RecyclingWater  
Resources

Biodiversity

Prevention  
of PollutionFYE March 2021 Environmental  
Performance Data for Plants and Offices**Environmental Education**

SUBARU deems it important for employees to conduct business and environmental activities with a strong awareness of environmental issues and the importance of environmental efficiency. Based on this recognition, we provide employees with a range of environmental education according to rank and job type.

**■ New Employee Environmental Education**

We provided education online during FYE March 2021 to help prevent the spread of COVID-19, and 704 people participated. The program covered the Subaru Group's Six Priority Areas for CSR to become a sustainable company and the SUBARU Global Sustainability Policy.

**■ ISO14001 New Internal Auditors Training Seminar**

We also held the ISO14001 New Internal Auditors Training Seminar to enhance the internal auditing system for our ISO14001-certified environmental management systems and to strengthen environmental conservation activities conducted at our workplaces. We invited external lecturers to this two-day seminar, and participants worked hard to gain the knowledge required of internal auditors.



ISO14001 New Internal Auditors Training Seminar

**■ Dealers in Japan**

In February 2021, we examined environmental laws and regulations related to the sales activities of dealers in Japan, and created an environmental law compliance manual for dealership use. We also conducted in-house training for the environmental law compliance manual, and about 110 people participated to deepen their understanding of environmental law compliance.

In November 2020, we conducted online training for sheet metal center compliance (chemical substances), and 68 people from 18 dealers in Japan participated.

**■ Subaru Logistics Co., Ltd.**

Subaru Logistics Co., Ltd. conducts in-house training on environmental laws and regulations in order to ensure compliance with environmental laws and regulations. In FYE March 2021, we held three training sessions for 120 participants, some of whom joined remotely. The sessions largely provided an overview of Japan's legal system; an overview of the application of the Waste Management Act, hazardous substances under the Fire Service Act, and the Water Pollution Prevention Act; and management of chemical substances. Group training in FYE March 2022 is mainly geared toward ensuring that Subaru Group employees who are involved in ISO14001 understand environmental laws and regulations.



Training session

# Environmentally Friendly Automobiles

## Our Approach

“The earth, the sky and nature” are Subaru’s fields of business, and we truly do value the benefits nature provides. The Subaru Group is committed to increasing the environmental performance of its products and also to protecting the global environment throughout the life cycle of its products, from the procurement of raw materials through to the manufacturing, transportation, use, and disposal of its products.

## Management System

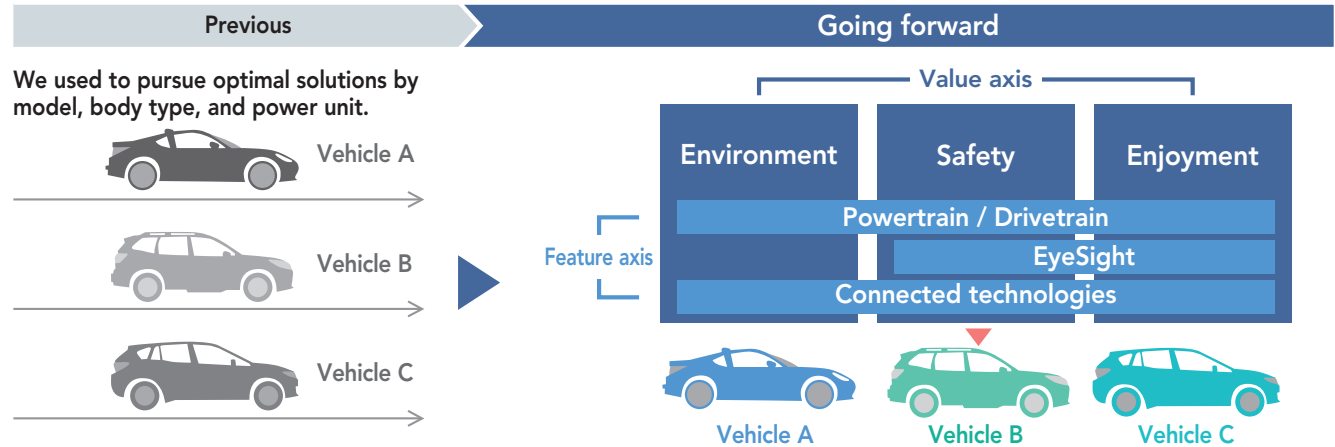
We need to effectively invest resources in the development of strategic technologies and link technology and management more comprehensively. This will enable us to address new technologies, as symbolized by the electric vehicles that will be key to resolving environmental issues, autonomous driving and connected car services, which in turn will enable us to deliver appealing products.

SUBARU has therefore transitioned to a development system that organically combines value and function from a development system based on functional units such as vehicle bodies and power units in order to accelerate the development

of new technologies such as environmentally responsible electric vehicles. We have also created the CTO Office within the Engineering Division as an organization to discuss and decide the future direction of technology development, along with a system to incorporate its outcomes into Groupwide strategies including procurement and manufacturing.

Our objective is to empower a transformation to a Groupwide optimization perspective over a division and vehicle optimization perspective within an organization that is flexibly able to address the technologies of the future. Our development system will evolve into a core platform for creating and delivering environmental and technological value that demonstrates SUBARU-ness.

**We cultivate, enhance, and accumulate future-generation core technologies that will underpin SUBARU’s future products.**



## Medium- to Long-term Goals (Long-term Vision and Milestones)

In order to contribute to a decarbonized society, SUBARU has set long-term goals (long-term vision) for reducing CO<sub>2</sub> emissions and medium-term goals (milestones) to complement them.

Even in the electric vehicle era, we will strengthen SUBARU-ness and manufacture environmentally responsible automobiles in line with our medium- to long-term goals for 2030 and 2050.

We have also set the new target of proceeding with research and development with the goal of using recycled materials<sup>\*1</sup> for more than 25% of the plastics used in new models<sup>\*2</sup> released worldwide by 2030 to help address the global waste plastic problem.

- On a well-to-wheel<sup>\*3</sup> basis, we will pursue our goal of reducing the average CO<sub>2</sub> emissions from new passenger cars by at least 90%<sup>\*4</sup> by 2050, compared with 2010.
- In the early 2030s, all commercial SUBARU cars<sup>\*1</sup> will be equipped with electric powertrain technology.<sup>\*5</sup>
- By 2030, we will pursue our goal of increasing the ratio of electric vehicles (EV) and hybrid cars to at least up to 40% of the gross number of vehicles sold globally.

\*1 Including material, chemical and plastic recycling.

\*2 Excluding models supplied by OEMs.

\*3 Well-to-Wheel: Approach to calculating CO<sub>2</sub> emissions including the emissions produced by the generation of electricity to be used by EVs and other vehicles.

\*4 Reduce total CO<sub>2</sub> emissions calculated based on the fuel efficiency (notified value) of all SUBARU automobiles sold across the world by 90% or more relative to the 2010 levels in 2050. Changes in the sales quantity due to changes in the market environment shall be taken into consideration, while minor changes in running distance shall not.

\*5 Refers to the technology used to foster the use of electricity for EVs, HEVs, and others.

## Contribution to the creation of a decarbonized society through products from SUBARU's point of view

### Global Environment Preservation

Companies are required to contribute to the achievement of a decarbonized society

#### 2050

On the well-to-wheel basis, we will pursue our goal of reducing the average CO<sub>2</sub> emissions from new passenger cars by at least 90% by 2050, compared with 2010.

#### 2030

By 2030, we will pursue our goal of increasing the ratio of electric vehicles (EV) and hybrid cars to at least 40% of the gross number of vehicles sold globally.

In the early 2030s, all commercial SUBARU cars will be equipped with electric powertrain technology.

SUBARU will accelerate the development of fundamental technologies for EVs and hybrid cars with support from alliance partners and continue offering products accentuating SUBARU's distinctions even in the emerging electric age.

SUBARU will contribute to building a decarbonized society through our distinctive and technological innovations.

## Initiatives

### Efforts to Reduce CO<sub>2</sub> Emissions for New Models

SUBARU is working to improve the fuel efficiency of conventional gasoline engine vehicles while turning its attention to expanding its lineup of electric vehicle models and promoting EV development to address stricter fuel efficiency regulations in the countries it operates in. We believe it will be important to steadily implement the above initiatives in order to reduce the amount of CO<sub>2</sub> emitted from automobiles.

### Higher Fuel Efficiency

We will continue to meet demand for conventional gasoline-powered vehicles from customers. HEVs, which we are expanding to include more models, are made by combining gasoline engines with electrification technology, and engines need further technological improvements to boost fuel efficiency. The 1.8-liter BOXER direct injection turbo DIT<sup>\*1</sup> combines the unique driving pleasure of a SUBARU with outstanding environmental performance. Installed in the new Levorg and Forester models launched in 2020, it is a next-generation BOXER engine with a turbo system that generates high torque at low RPM. Its lean combustion technology produces more energy with less fuel. Combined with the expanded Lineartronic shift range, this engine offers even more powerful acceleration off the line and superb fuel efficiency when cruising at high speed.

\*1 Direct injection turbo



New 1.8-liter direct injection engine

**Electric Vehicles—HEVs, Plug-in Hybrid Vehicles (PHEVs), Strong Hybrid Electric Vehicles (SHEVs), and Other Electromotive Vehicles (xEVs)**

SUBARU has been increasing the number of vehicles equipped with its mild hybrid e-BOXER<sup>2</sup> engine that combines a horizontally opposed engine and electric technology, and to reduce CO<sub>2</sub> emissions has implemented initiatives such as creating its own plug-in hybrid vehicle (PHEV) using the hybrid vehicle expertise of Toyota Motor Corporation (Toyota). In addition, we will launch series hybrid electric vehicles (SHEV) in the mid-2020s that incorporate Toyota Hybrid System (THS)<sup>3</sup> technology to deliver vehicles that feature SUBARU-ness while offering high-level environmental performance. We are also planning to develop xEVs with improved fuel efficiency by equipping gasoline engine vehicles with various electrification technologies. By steadily expanding our product lineup of electric vehicles, we will help reduce CO<sub>2</sub> emissions for new models.

<sup>\*2</sup> Generic term used for "horizontally opposed engine + electrification technology," which offers the unique driving pleasure of SUBARU while being environmentally friendly.

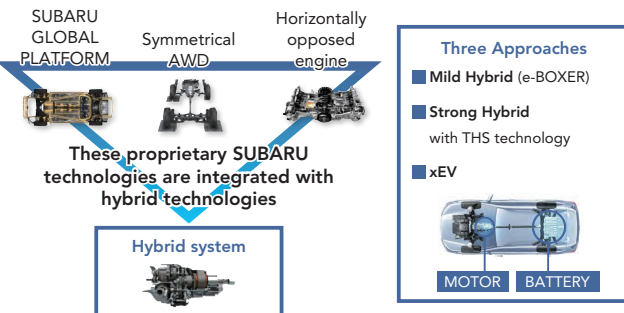
<sup>\*3</sup> TOYOTA Hybrid System



PHEV Crosstrek Hybrid



Forester Advance equipped with the e-BOXER power unit



**Electric Vehicles (EVs)**

SUBARU plans to launch SOLTERRA around the middle of 2022 as another step toward the era of the electric car. SUBARU's first global EV, SOLTERRA, is designed to be environmentally responsible. It utilizes the e-SUBARU Global Platform, a dedicated EV platform we jointly developed with Toyota, as well as the AWD technology we have developed for many years and Toyota's outstanding electrification technology, thus bringing together the strengths of both companies. An SUV with the unique appeal of

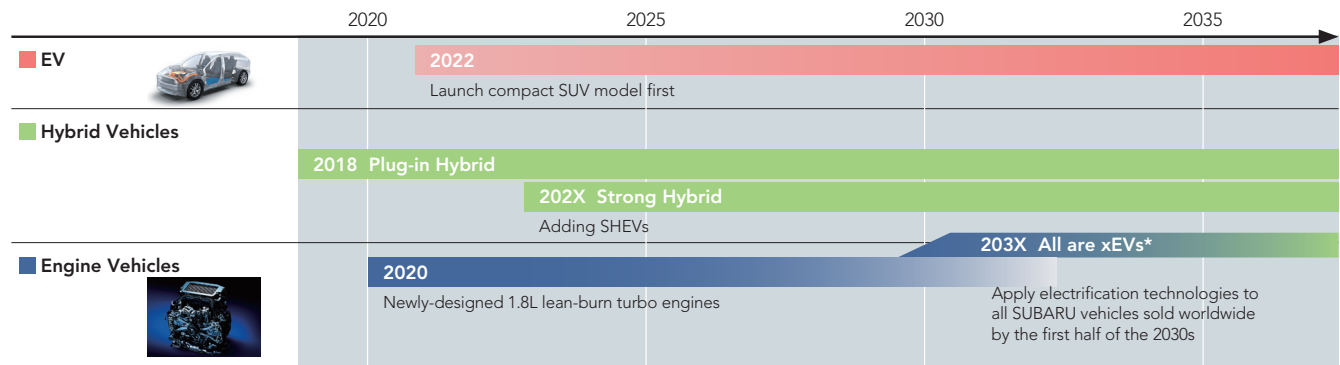


SUBARU name for a jointly developed EV: SOLTERRA  
"SOLTERRA" is a coined word that combines the Latin words "sol," which means "sun," and "terra," which means "earth."

an EV, SOLTERRA will launch in Japan, the U.S., Canada, Europe, China, and elsewhere as a new option in the SUBARU SUV lineup.

SUBARU continues to develop and deliver products that meet societal needs and contribute to the environment through advanced technologies, thereby contributing to the protection of the global environment. We will continue to consider practical functions and customer preferences as we enhance our lineup in the markets we serve with environmentally friendly vehicles that are unique to SUBARU and that can deepen relationships with customers.

Reducing CO<sub>2</sub> emissions with electrification technologies while further accentuating "SUBARU-ness" in the environmental era



\* Vehicles with electrification technology.

### Life Cycle Assessment

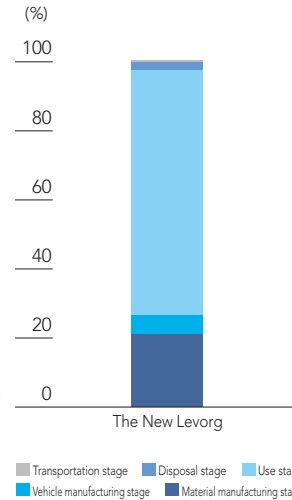
SUBARU conducts LCA\*4 to evaluate CO<sub>2</sub> emissions during the entire life cycle of automobiles, from raw material procurement to manufacturing to transportation, use, and disposal. We will quantify the environmental impact of automobiles and proactively develop automobiles taking into account the need for decarbonization from the design stage.

SUBARU will reduce environmental load throughout the entire lifecycle by improving fuel efficiency and electrification technologies.

\*4 Life cycle assessment (LCA) is an environmental impact assessment method that comprehensively evaluates environmental load at every stage of the life cycle of products and services from raw material procurement to production, use, disposal and recycling.

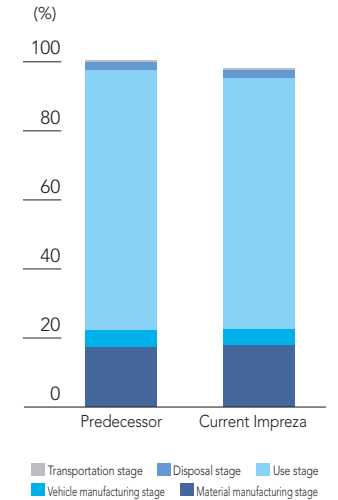
#### Levorgg

The displacement class of the new Levorg announced in October 2020 has changed.  
The ratio of CO<sub>2</sub> emissions at each LCA stage is shown on the right.



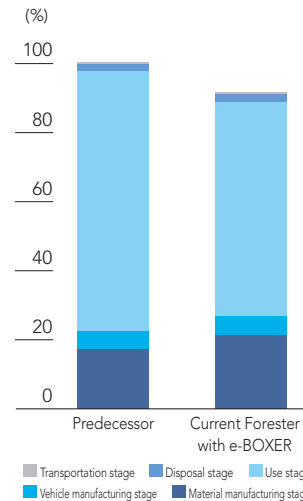
#### Impreza

LCA of the new Impreza, which was fully redesigned in fall 2016, is shown on the right.  
The new Impreza reduces CO<sub>2</sub> emissions by 2.3% over its life cycle compared with its predecessor.



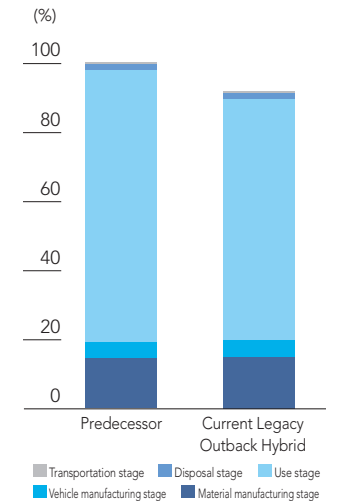
#### Forester (e-BOXER)

LCA of the new Forester with e-BOXER announced in June 2018 is shown on the right.  
It reduces CO<sub>2</sub> emissions by 8.7% over its life cycle compared with its gasoline-fueled predecessor.



#### Legacy Outback

LCA of the new Legacy Outback announced in October 2014 is shown on the right.  
The new Legacy Outback reduces CO<sub>2</sub> emissions by 8% over its life cycle compared with its predecessor.





Environmental Management

Environmentally Friendly Automobiles

Climate Change

Resource Recycling

Water Resources

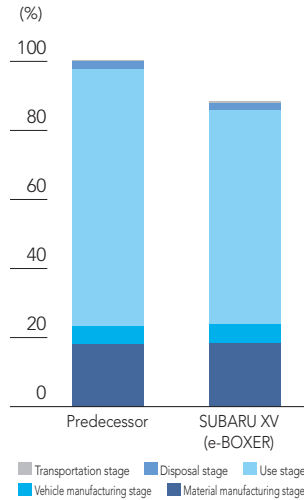
Biodiversity

Prevention of Pollution

FYE March 2021 Environmental Performance Data for Plants and Offices

### SUBARU XV (e-BOXER)

LCA of the new SUBARU XV (e-BOXER) announced in October 2018 is shown on the right. It reduces CO<sub>2</sub> emissions by 12% over its life cycle compared with its gasoline-fueled predecessor.



### Design for Recycling

SUBARU incorporates recyclability into its automobile design process to make effective use of limited resources.

#### Increased ease of dismantling wiring harnesses

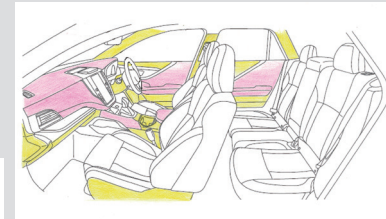
A harness layout and structure are designed in such a way as to enable quick and efficient recovery of wiring harnesses.



#### Use of easy-to-recycle materials

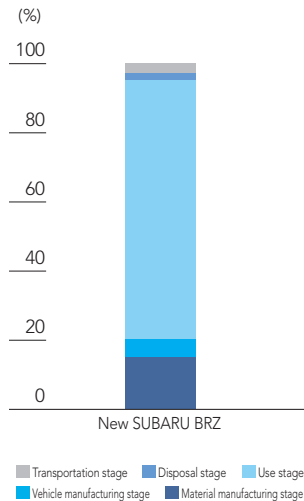
Olefin resin with superior recyclability is actively used for interior parts.

- Made from an olefin resin material
- Made of olefin resin



### SUBARU BRZ

The ratio of CO<sub>2</sub> emissions at each stage of the LCA for the SUBARU BRZ launched in July 2021 is shown on the right. The displacement class is different from the predecessor model, so only data for the new model is presented.



#### Improved material identification

Material identification is displayed on both the inner and outer surfaces of bumpers to facilitate material separation.



#### Adoption of easy-to-dismantle structure

Trunk and rear gate opener switches are now clipped, rather than screwed, in place.



## Utilizing Recycled Resins

To contribute to realizing a resource recycling society and a decarbonized society, SUBARU is working to develop technologies to utilize recycled resins and biomass materials in place of the resins currently used in automobiles.

### ■ Subaru of America, Inc.

Subaru of America, Inc. helped develop and launch environmentally friendly accessories in the form of floor mats made from used recycled materials for the 2021 Crosstrek Sport®. The surface and lining of these floor mats are made from 100% recycled materials such as trash removed from the ocean.



Floor mats made from recycled materials

## Cleaner Exhaust Gas

To achieve and maintain clean air across the globe, SUBARU is developing technologies for cleaner exhaust gas, targeting not only conventional air pollutants such as hydrocarbon compounds and nitrogen oxides but also particulate matter, which is feared to have serious impacts on human health. At the product level, we are expanding our range of models that meet the latest regulations by country, while addressing emerging regulations at the development level.

Japan: 2018 low emissions standards

U.S.: State of California's SULEV standards

Europe: Euro 6 emission standards (final stage)

China: China 6 emission standards

We will develop and propose reasonable products for customers based on the results of research conducted to identify the optimal specifications in each country, including research on the components of exhaust gas that will be regulated in the future. To this end, we are designing materials on an atomic level to improve the performance of the catalyst, which plays a major role in producing cleaner exhaust gas, while also reducing the use of precious metal.

## Reducing Environmentally Hazardous Substances

SUBARU is also collaborating with suppliers in reducing the use of environmentally hazardous substances in automobiles.

We achieved the environmentally hazardous substance reduction targets for lead, mercury, hexavalent chromium and cadmium set by the Japan Automobile Manufacturers Association, Inc. (JAMA) for all new models released in and after 2008.

In order to ensure compliance with the REACH regulation, ELV Directive, Chemical Substance Control Law and other regulations enforced across the world, we are further reducing the use of lead and replacing phthalic acid-based plasticizer and other hazardous chemical substances with alternatives.

## Reducing VOCs<sup>\*5</sup> in Vehicle Interiors

SUBARU is reviewing the components and adhesive agents used in vehicle interiors in order to reduce the use of volatile organic compounds (VOCs).

For the Legacy, Levorg, Impreza, Forester, and SUBARU BRZ, we achieved the voluntary target set by the JAMA<sup>\*6</sup> by reducing the concentration of the 13 substances defined by the Japanese Ministry of Health, Labour and Welfare to levels below the indoor concentration guideline values. We will continue our efforts to reduce the levels of VOCs to make the in-vehicle environment even more comfortable.

<sup>\*5</sup> Organic compounds that easily volatilize at room temperature, such as formaldehyde and toluene, which are said to cause nose and throat irritation.

<sup>\*6</sup> Voluntary target set by the JAMA in its "Voluntary Approach in Reducing Cabin VOC Concentration Levels," which was announced with the intention of reducing the in-vehicle concentrations of the 13 substances designated by the Ministry of Health, Labour and Welfare to levels equivalent to or lower than the values set in the guidelines, for new models produced and sold in Japan in and after FYE March 2008.

[☐ JAMA's "Voluntary Approach in Reducing Cabin VOC Concentration Levels" \(Japanese version only\)](#)

# Climate Change

## Our Approach

SUBARU recognizes that climate change is one of the most pressing global issues, and respects the goal of the Paris Agreement to hold the increase in the global average temperature to well below 2°C above pre-industrial levels. SUBARU will contribute to this goal by reducing CO<sub>2</sub> emissions from its products, factories and offices to help decarbonize society. SUBARU has set long-term and medium-term goals as milestones for its target of carbon neutrality in 2050.

## Risks and Opportunities Identified

SUBARU defines and identifies risks and opportunities associated with climate change to achieve sustainable business activities.

We have identified a number of risks associated with climate change. Initiatives to address climate change may be inadequate or abnormal weather may cause delays in procurement, production and distribution. In addition, transition risks and physical risks may have impacts and outcomes that are currently extremely difficult to predict. Increased R&D expenses, lost sales opportunities due to reduced customer satisfaction and brand image, and delays in procurement, production and distribution due to abnormal weather are among the potential impacts of these risks. These risks could have a material impact on the operating results and financial position of the Subaru Group.

On the other hand, effective initiatives to address climate change could lead to opportunities to create new markets and employment and also use capital and energy more efficiently.

### Main Risks Identified

#### ■ Business Management in General

- (1) If SUBARU fails to implement adequate initiatives to achieve low-carbon/zero-carbon outcomes, its brand value could be harmed, which could affect the company's sales and recruiting ability. Capital costs could also rise, due to increased difficulty in obtaining financing from medium- and long-term investors.
- (2) There is an argument that NDCs need to be expanded to be able to achieve the Paris Agreement's "well below 2°C" target, and thus countries may revise their NDCs to set more stringent targets. Such revisions could have a significant impact on SUBARU's business activities.
- (3) As an impact of climate change, extreme torrential rain will frequently cause floods in various locations, which could pose

risks of SUBARU's operations being affected by disrupted supply of raw materials and submerged factories.

#### ■ Products

- (1) If SUBARU fails to meet fuel economy regulations imposed in Japan, the U.S., Europe, and China, the company could incur additional costs or losses related to negative incentives, such as fines or non-penal fines for legal violation, and credit purchase for unmet standards. Also, some of our products could fail to satisfy certain fuel economy standards, resulting in restrained sales opportunities.
- (2) At present, it is difficult to predict technological progress and price optimization for electrification, which will likely cause a substantial gap with the real state of market needs. In such a situation, SUBARU could incur unnecessary and excessive R&D costs while facing a decline in customer satisfaction, resulting in unexpected losses and reduced sales opportunities as well as hampered advancement of the company's electrification efforts.
- (3) To promote electrification, it is crucial to ensure profitability for the entire product cycle ranging from procurement and use to disposal. Thus, it is essential to involve SUBARU's upstream and downstream partners in exerting efforts toward this end. Failure to do this could render the company unable to meet the profitability goal for the entire product life cycle.
- (4) SUBARU views electrification as a steady medium- to long-term trend, and also anticipates the possibility of its swift and sweeping penetration of the market at some stage. SUBARU could be unprepared for such prospect in terms of technology and timely product lineups, and thus suffer from a resultant loss of product sales opportunities.
- (5) There is a possibility that SUBARU might suffer from shortages of natural resources used for tires and metal resources for electrification technologies.

**Production Phase**

- (1) If SUBARU continues to use energy derived from fossil fuels, it could incur rising costs, due not only to geopolitical factors associated with petroleum and the like, but also to carbon taxes, emission quotas, and other government policies and regulations.
- (2) If use of renewable energy does not grow as expected, SUBARU could face slower progress in achieving its Scope 1 and 2 emissions reduction goals.

**Main Opportunities Identified**

- (1) If SUBARU advances its efforts to make products more environmentally friendly as planned and global climate change mitigation/adaptation efforts progress adequately, the company will be able to maintain its key markets. This scenario also implies a possibility of the company creating new markets through receiving support for its safe and reliable products, a source of its strength, even in the face of intensifying extreme weather conditions that are to some extent unavoidable in certain parts of the world.
- (2) Through contributing to addressing climate change issues, SUBARU could increase its brand value, thereby enhancing its sales and recruiting ability. This could make it easier for the company to obtain financing from investors, thereby lowering capital costs.
- (3) Regarding energy use during the production phase, by transitioning to renewable energy while at the same time giving due consideration to cost-effectiveness, SUBARU could overcome the risk of being exposed to price fluctuations involved in energy derived from fossil fuels, thereby preventing future cost increases.

\* The risks and opportunities described above are based on past facts and currently available information, and may change significantly due to such factors as future economic trends and the business environment facing SUBARU. The opportunities described represent those for SUBARU's products to contribute to climate change adaptation and do not anticipate climate change-related deterioration.

**Management System**

SUBARU has established the Environment Committee for the purpose of promoting the sustainable growth of both society and the company, and thereby contributing to global environment conservation. The committee discusses targets and measures from broad as well as medium- to long-term perspectives that accommodate environmental standards required by future societies, and evaluates the progress of related implementations and achievements.

The Environment Committee is chaired by the Executive Officer in charge of the Sustainability Division appointed by the Board of Directors. Details of discussions by the Environment Committee are reported to the Sustainability Committee. We also have a system for escalation and reporting to the Executive Management Board Meeting and Board of Directors to be used as necessary. Management of climate change-related activities is included in the responsibilities of the environmental management structure. Environmental risks and opportunities associated with climate change are assessed and monitored, and undergo management review before major issues are reported to the Board of Directors. Each of the four bodies within the structure – Production & Environment Subcommittee, Global Warming Prevention Division, Domestic Affiliated Companies' Environment Subcommittee, and Sales and Service/Distribution Environment Subcommittee – meet twice a year for the purpose of monitoring.

**Governance Structure Related to Climate Change**



**Medium- to Long-term Goals (Long-term Vision and Milestones)**

In order to contribute to a decarbonized society, SUBARU has set long-term goals (long-term vision) for 2050 and medium-term goals (milestones) for around 2030, regarding the product (Scope 3) and production phases (Scope 1 and 2).

SUBARU is investigating compliance with relevant policies including the fuel efficiency regulations of the countries it serves. We formulate our own scenarios and plans for achieving our medium- to long-term goals based on policy trends and scenario-specific information published by the International Energy Agency and others.

Category	Target Year	Goal
Products (Scope 3)	2050	Reduce average well-to-wheel CO <sub>2</sub> emissions from new vehicles (in operation) by 90% or more compared to 2010 levels
	Early 2030s	Apply electrification technologies to all SUBARU vehicles produced and sold worldwide
	Up to 2030	Make at least 40% of SUBARU global sales electric vehicles (EVs) or hybrid electric vehicles (HEVs)
Plants and offices (Scope 1 and 2)	FYE March 2051	Achieve carbon neutrality
	FYE March 2031	Reduce CO <sub>2</sub> emissions by 30% compared with FYE March 2017 (total volume basis)

## Aiming at a 20,000 t-CO<sub>2</sub> Reduction from Plants and Offices

As part of the new medium-term environmental plan, Environment Action Plan 2030, the Subaru Group took on the challenge of reducing CO<sub>2</sub> emissions by 20,000 tons over the three years from FYE March 2019 through FYE March 2021. The actual reduction through FYE March 2021 was 36 thousand t-CO<sub>2</sub>, which significantly exceeded the target.

We will pivot to Environment Action Plan 2030, and will implement additional initiatives to reduce CO<sub>2</sub> emissions at plants and offices.

## Main Initiatives and CO<sub>2</sub> Emission Reduction Equivalents in FYE March 2021

Main Initiatives	FYE March 2021 Results
Captive-consumption solar power system installed at Gunma Oizumi Plant <sup>*1</sup>	2,807t-CO <sub>2</sub>
Zero-carbon electricity from Aqua Premium and the Gunma Prefecture Hydropower Plan introduced at Gunma Main Plant	14,110t-CO <sub>2</sub>
Captive-consumption solar power system installed at Subaru Accessory Center and Kanto PDI Center <sup>*2</sup>	274t-CO <sub>2</sub>
Zero-carbon electricity from the Tochigi Furusato Denki program introduced at Utsunomiya South Plant and 2nd South Plant	4,906t-CO <sub>2</sub>
Green Power certificates utilized at Tokyo Office	3,772t-CO <sub>2</sub>
Solar power system installed at SIA Technical Training Center <sup>*3</sup>	119t-CO <sub>2</sub>
Green Power and Green Heat certificates <sup>*4</sup> utilized at Head Office (Ebisu Subaru Building) and Subaru Training Center	1,384t-CO <sub>2</sub>
Introduced carbon-free electric power at Ichitan Co., Ltd.	2,888t-CO <sub>2</sub>
Switching to LED lighting (total from FYE March 2019 to FYE March 2021) <sup>*5</sup>	3,251t-CO <sub>2</sub>
<b>Total</b>	<b>35,591t-CO<sub>2</sub></b>

\*1 Came online in May 2020. \*2 Came online in April 2020. \*3 Came online in December 2019. \*4 Provisional values to be verified under the Green Energy-based CO<sub>2</sub> Reduction Certification System of the Agency for Natural Resources and Energy (part of the Ministry of Economy, Trade and Industry) and the Ministry of the Environment. \*5 Total amount for the three-year plan period (FYE March 2019: 440 t-CO<sub>2</sub>; FYE March 2020: 1,428 t-CO<sub>2</sub>; FYE March 2021: 1,383 t-CO<sub>2</sub>).

## Initiatives to Reduce 20,000 Tons of CO<sub>2</sub> Emissions by FYE March 2021

### Captive-consumption solar power system



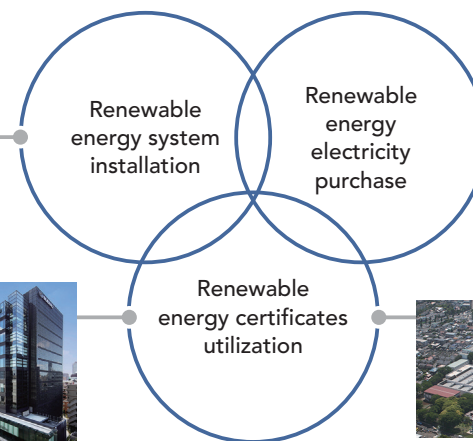
Japan's largest-scale captive-consumption solar power system (Gunma Oizumi Plant)



Subaru Accessory Center, etc.



Head Office and Subaru Training Center



### Purchase of hydroelectricity



Utsunomiya South Plant/2nd South Plant



Tokyo Office



Gunma Main Plant

## Achievements

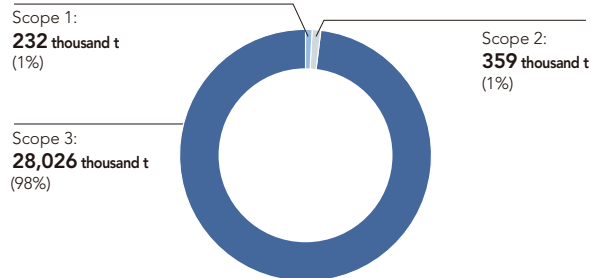
For FYE March 2021, SUBARU has reported a total of 28,617 thousand t-CO<sub>2</sub> of supply chain greenhouse gas emissions (Scopes 1, 2, and 3). Out of the total amount, 98% is related to Scope 3, the majority of which stems from the use of sold products.

Although our direct CO<sub>2</sub> emissions (Scopes 1 and 2) constitute only a marginal portion of the total, we are making proactive efforts to diminish direct emissions, which we believe will encourage the entire SUBARU value chain to work as a team and in greater earnest. In FYE March 2021, energy consumption decreased by 1,174 TJ due to a decrease in production, and Scope 1 and 2 emissions decreased 58 thousand tons due to the use of renewable energy and the temporary suspension of factory operations due to COVID-19 and the semiconductor shortage. Going forward, we will introduce cutting-edge energy conservation functions and renewable energy sources in order to further reduce CO<sub>2</sub> emissions and energy use.

Scope 1: Direct emissions of greenhouse gases from a company's own facilities.

Scope 2: Indirect emissions of greenhouse gases from the use of purchased or acquired electricity, heat, and/or steam supplied by another company.

Scope 3: All indirect emissions other than Scope 1 and 2 emissions, including those arising from the procurement of raw materials, transport, product use, and the disposal process, as well as arising from employee commuting, business travel, etc.



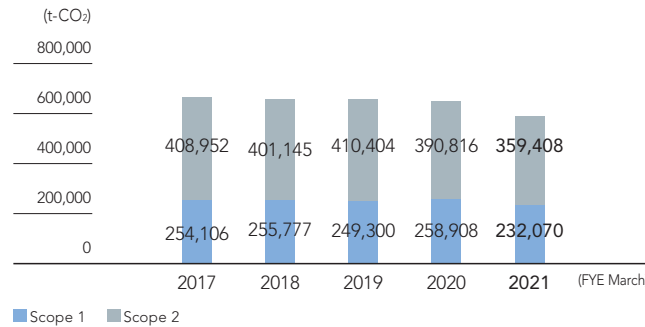
### CO<sub>2</sub> Emissions by Organization



### Energy Consumption



### CO<sub>2</sub> Emissions by Scope



SUBARU calculates energy consumption and CO<sub>2</sub> emissions based on the Act on the Rational Use of Energy and the Act on Promotion of Global Warming Countermeasures. However, we use coefficients for overseas group companies that are based on local laws and regulations. We revise results for previous years after reviewing the relevant data.

CO<sub>2</sub> Emissions (Scopes 1, 2, 3) / Energy Consumption

Scope:

SUBARU: SUBARU CORPORATION

Domestic group companies: Yusoki Kogyo K.K., Fuji Machinery Co., Ltd., Ichitan Co., Ltd., Kiryu Industrial Co., Ltd., Subaru Logistics Co., Ltd., SUBARU dealerships

Overseas group companies: Subaru of Indiana Automotive, Inc., Subaru of America, Inc., Subaru of Canada, Inc., Subaru Research & Development, Inc.

Environmental  
ManagementEnvironmentally  
Friendly Automobiles**Climate  
Change**Resource  
RecyclingWater  
Resources

Biodiversity

Prevention  
of PollutionFYE March 2021 Environmental  
Performance Data for Plants and OfficesCO<sub>2</sub> Emissions (Scope 3)

Category	Greenhouse Gas Emissions (t-CO <sub>2</sub> )		
	FYE March 2019	FYE March 2020	FYE March 2021
1. Purchased goods and services	1,703,682	1,992,046	1,583,247
2. Capital goods	372,211	413,287	282,713
3. Fuel- and energy-related activities not included in Scope 1 or Scope 2	78,815	105,323	91,725
4. Transport and delivery (upstream)	658,268	737,817	601,167
5. Waste generated in operations	31,984	32,095	26,446
6. Business travel	4,446	4,554	4,689
7. Employee commuting	13,506	13,835	14,245
8. Leased assets (upstream)	N/A	N/A	N/A
9. Transportation and delivery (downstream)	N/A	N/A	N/A
10. Processing of sold products	N/A	N/A	N/A
11. Use of sold products	29,079,531	29,736,064	24,941,586
12. End-of-life treatment of sold products	556,139	575,107	478,558
13. Leased assets (downstream)	2,394	2,463	1,998
14. Franchises	N/A	N/A	N/A
15. Investments	N/A	N/A	N/A

Source: The calculation method for SUBARU Scope 3 emissions has been revised in reference to the Basic Guidelines on Accounting for Greenhouse Gas Emissions throughout the Supply Chain Ver. 2.3 (December 2017) by the Ministry of the Environment and Ministry of Economy, Trade and Industry; the Emissions Unit Value Database Ver. 3.0 by the Ministry of the Environment Database of emissions unit values; and SUBARU's life cycle assessment (LCA) calculation standards.

## Initiatives

SUBARU is reducing its CO<sub>2</sub> emissions by using renewable energy and upgrading to highly efficient machinery and equipment with the aim of achieving carbon neutrality in 2050.

Renewable energy in FYE March 2021 will account for 3.4% of the energy consumption of the entire Subaru Group. All of the electricity used at Gunma Main Plant, Utsunomiya South Plant and 2nd South Plant and the Ebisu Subaru Building is carbon-neutral electric power.

In addition, energy conservation initiatives at the Gunma Main Plant that centered on the introduction of an exhaust heat recovery system in the automotive painting process received the 2020 Energy Conservation Center Chairman's Award from the Energy Conservation Center, Japan.

We have also been proactively switching to LED lighting since FYE March 2016, and in FYE March 2021 we reduced CO<sub>2</sub> emissions by approximately 1,400 tons annually by switching approximately 2,500 lighting fixtures to LED lighting.

In addition, Subaru Kohsan Co., Ltd. sells electricity generated from solar power generation facilities in Gunma and Shiga prefectures.

Environmental  
ManagementEnvironmentally  
Friendly AutomobilesClimate  
ChangeResource  
RecyclingWater  
Resources

Biodiversity

Prevention  
of PollutionFYE March 2021 Environmental  
Performance Data for Plants and Offices

## Gunma Plant

The Gunma Plant's West Building, completed in April 2016, has installed solar panels with a 20 kWh capacity, and employed two key advanced environmental functions: a new-generation lighting system that has incorporated individual address control and image-pickup human-presence sensor technologies; and a high-efficiency air-cooling heat-pump chiller. The plant has also adopted a number of non-mechanical features that can help achieve energy conservation and workplace comfort, such as low-e double-pane windows, trench heating/cooling systems, and balconies that create an attractive recreation space while also serving as a sunlight blocker.

### ■ Purchase of Carbon-Neutral Electricity (Gunma Main Plant, Oizumi Plant)

The Gunma Main Plant had been purchasing a portion of its electricity through the Aqua Premium rate plan specifically for sales of hydropower, but switched to the Gunma Hydropower Plan in November 2020. All of its electricity is now from hydropower, which reduced CO<sub>2</sub> emissions by approximately 14 thousand tons in FYE March 2021.

We also reduced CO<sub>2</sub> emissions by approximately 1,200 tons by using non-fossil fuel certificates for the approximately 2,500 MWh of electricity the Oizumi Plant of Gunma Manufacturing Co., Ltd. purchased in FYE March 2021.

### ■ Introduction of High-efficiency Air-conditioning Systems (Gunma Yajima Plant)

The automobile painting process involves repeated heating and cooling steps, which consumes a huge amount of energy. To address this issue, the Gunma Yajima Plant adopted a heat pump-based highly efficient heat source system to replace the previous

discrete heat source system, starting its operation in 2018. In FYE March 2021, the new technology reduced CO<sub>2</sub> emissions by 2,338 tons compared with the previous system.

### ■ Replacement of Cogeneration Facilities

Because the first cogeneration facilities installed at the Gunma Plant had been in operation for 15 years, we replaced the old facilities with new equipment that started operation in 2019. For the replacement, we selected a model with specifications that make a greater contribution to energy savings in light of the most recent energy consumption profile.

In FYE March 2021, the new facilities reduced CO<sub>2</sub> emissions by 6,000 tons compared with operation period of the previous model.

### ■ Solar Power Generation at the Gunma Oizumi Plant and the Gunma Yajima Plant

Since May 2020, the Gunma Oizumi Plant has been operating one of the largest solar power generation facilities for internal use in Japan. It generates approximately 5,000 MWh/year, and the Gunma Yajima Plant reduced CO<sub>2</sub> emissions by approximately 2,800 tons in FYE March 2021. In addition, the Gunma Yajima Plant will install solar power generation equipment in a multi-story parking garage and final inspection building, and begin using it in FYE March 2022.

## Aerospace Company (Utsunomiya Plant and Handa Plant)

### ■ Carbon-Neutral Electricity Purchased through the Tochigi Furusato Denki Program for Regional Production and Consumption

In FYE March 2019, SUBARU's Aerospace Company adopted the Tochigi Furusato Denki program<sup>\*1</sup> to provide electricity to its Utsunomiya South and 2nd South Plants. The program offers electricity from hydropower generation projects owned by Tochigi Prefecture, and represents Japan's first-ever power supply program themed on the "local production for local consumption" concept.

The above program enables the two plants to reduce emissions by an average of 4,700-plus t-CO<sub>2</sub> per year. This program also includes a scheme to spend part of the funds from bill payment, including from SUBARU, on environmental conservation projects promoted in Tochigi Prefecture.

<sup>\*1</sup> Electricity service program co-hosted by the Tochigi Public Enterprise Bureau and TEPCO Energy Partner, Inc. Supplies electricity generated by eight hydroelectric power stations run by the Tochigi prefectural government. Hydropower users can claim to be emitting no CO<sub>2</sub> from using the electricity, on the grounds of its carbon-free generation process.

### ■ Replacement of Cogeneration Facilities

In March 2021, upon completion of the contract with the energy service company (ESCO<sup>\*2</sup>) we replaced the cogeneration system it installed in 2005. In addition to reducing CO<sub>2</sub> emissions, the new cogeneration system enhances community and employee safety with its blackout start function that can initiate power generation if the power grid goes down for an extended period.

<sup>\*2</sup> A Ministry of the Environment program that covers all expenses related to energy-saving improvements that reduce utility costs, with ESCO providing all services from energy-saving diagnosis and design to construction, operation, maintenance, and financing.



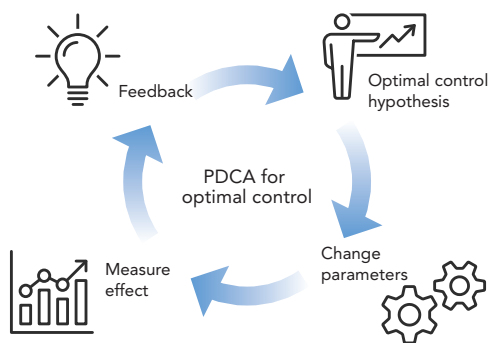
**IoT Enables Stable Supply of Factory Air and Improved Energy Efficiency**

SUBARU is moving forward with digital transformation (DX) driven by information and communication technologies (ICT) and the Internet of things (IoT). We began the systemization of air factory analysis, data analysis and the introduction of countermeasures in November 2019. We have implemented three measures: investigating and repairing air leaks, restricting air supply and improving operating efficiency. We expect energy savings to reduce CO<sub>2</sub> emissions by 500 tons per year.



Air leak investigation

**Improve Compressor Operating Efficiency**



**Tokyo Office**

The Tokyo Office is in Mitaka, Tokyo. It is subject to the Tokyo Cap-and-Trade Program for large facilities as per the Tokyo Metropolitan Environmental Security Ordinance. The Tokyo Office is therefore reducing CO<sub>2</sub> emissions with two priority initiatives: promoting energy conservation by improving facilities and by proactively adopting energy-saving equipment. We are also promoting the use of renewable energy, and have installed solar power generation equipment with approximate capacity of 30 kW on the rooftops of office buildings. The system generated 38 MWh in FYE March 2021, which the Tokyo Office used for a portion of its electricity requirements.

We are also reducing CO<sub>2</sub> emissions by using the Green Power Certificate system. In FYE March 2021, we purchased 8,535 MWh of electricity under the Green Power Certificate system, which effectively reduced CO<sub>2</sub> emissions equivalent to 3,772 tons.

**Offices**

**Head Office (Ebisu Subaru Building) and Subaru Training Center**

Targeting offices with zero CO<sub>2</sub> emissions, we use the Green Power Certificate and Green Heat Certificate systems for the electricity and heat we use. In FYE March 2021, we reduced CO<sub>2</sub> emissions by 1,384 tons.

**Subaru Accessory Center**

In March 2020, the Subaru Accessory Center introduced a solar power generation facility with annual power generation capacity of 1,145 MWh/year. We plan to reduce CO<sub>2</sub> emissions by approximately 274 tons annually.

**Subaru Research and Experiment Center**

The Subaru Research and Experiment Center installed solar power generation equipment in FYE March 2018, and generated 64 MWh in FYE March 2021.



Subaru Research and Experiment Center

**Domestic group companies**

**Fuji Machinery Oizumi Plant**

The Oizumi Plant of Fuji Machinery Co., Ltd. installed solar power generation equipment in FYE March 2018, and generated 36 MWh.



Fuji Machinery Co., Ltd. Oizumi Plant

**Ichitan Co., Ltd.**

Ichitan has been reducing annual CO<sub>2</sub> emissions by 2,888 t-CO<sub>2</sub> by purchasing carbon-free electricity.

**Subaru Kohsan Co., Ltd.**

Subaru Kohsan Co., Ltd. entered the business of marketing electricity from solar power generation facilities. The project, which involved the installation of solar power generation equipment with a rated output of 420 kW (equivalent to 100 detached houses) in Kiryu, Gunma Prefecture, resulted in the sales of 627 MWh of electricity in FYE March 2020. Subaru Kohsan also launched power generation in Shiga Prefecture in March 2021 with annual capacity of 1,553 MWh.

### Overseas group companies

#### Subaru of Indiana Automotive, Inc. (SIA)

The SIA Technical Training Center has solar power generation equipment on its roof and LEDs with motion sensors for all indoor lighting. The center generated 160 MWh of solar in FYE March 2021, and reduced electricity use by replacing compressors and other air-conditioning equipment.

#### Subaru of America, Inc.

Subaru of America, Inc.'s new headquarters and training center have acquired silver LEED certification,<sup>\*3</sup> which is higher than standard certification.

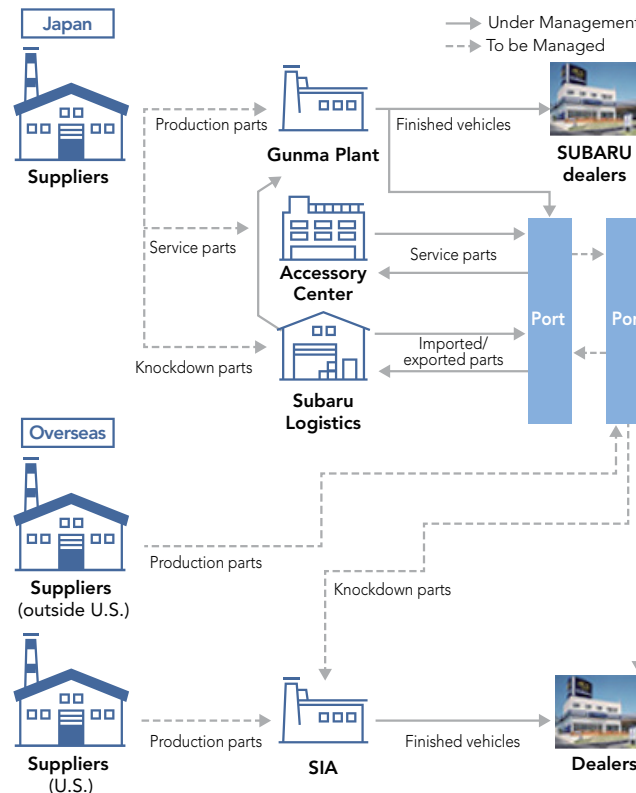
\*3 Leadership in Energy and Environmental Design (LEED) certification is a green building certification system developed and operated by the U.S. Green Building Council (USGBC). It provides objective environmental performance data on buildings through evaluation of energy conservation and environmental impact reduction abilities for a range of project stages from overall planning and design to construction, management, and maintenance. Acquisition of the certification is becoming popular in the U.S. and others.

#### Subaru Canada, Inc.

The building that houses the relocated office of Scott Subaru, a retailer of Subaru Canada, Inc., from 2019 boasts a distinctively high energy efficiency design that enables comfort without air conditioning systems. In recognition of this, the building is the world's first retail facility to obtain a passive house certification.

### Distribution

SUBARU is working with its logistics and distribution arms to reduce CO<sub>2</sub> emissions from the entire group through increased transport efficiency for finished vehicles and export parts. We will enhance supply management, which will contribute to carbon neutrality in 2050.



### Transport of Finished Vehicles

To improve the transport efficiency for finished vehicles, SUBARU is rolling out various measures, including establishing optimal standard routes, ensuring flexibility to accommodate shipping of a wide range of vehicle types and sizes (particularly large cars), improving loading efficiency, installing digital tachographs<sup>\*4</sup> to help energy conservation, and promoting modal shift.<sup>\*5</sup>

As a result of expanded efforts for consolidated and standardized transportation routes, per unit CO<sub>2</sub> emissions from transportation of SUBARU vehicles in FYE March 2021 declined 6.4% from the FYE March 2007 level, against the target of a 1% reduction per year from the base year. We will continue with our efforts to pursue further reductions.

\*4 Fitted to a vehicle to automatically record its journey information, such as driving time and speed, and store the information in the installed recording medium, such as a memory card. The device is employed broadly by industries involving the commercial operation of vehicles as a tool for driving management. As the system can present clear data of recorded events, including sudden acceleration and deceleration, fuel-wasting engine idling, and dangerous driving, it is expected to help drivers increase their awareness of safe driving and fuel economy.

\*5 For cargo transportation, switching transportation modes from trucks to those imposing less environmental burden, such as railway and seaborne systems.

### Export Parts

Subaru Logistics Co., Ltd., which packages and ships parts for overseas production of SUBARU vehicles, makes ongoing efforts to improve the container fill rate. Key activities relate to utilizing unused upper space in high cube containers, improving packing modes, and employing lighter-weight packaging materials. Despite these ongoing initiatives, the container fill rate decreased to 85.4% in FYE March 2021 due to production fluctuations at our U.S. factory.

We are also increasing transport route efficiency. We began using the container round use system<sup>\*6</sup> in FYE March 2018. This enabled us to reduce emissions by 400 t-CO<sub>2</sub> year on year in FYE March 2021. The use of inland container depots<sup>\*7</sup> has reduced 67

Environmental Management

Environmentally Friendly Automobiles

**Climate Change**

Resource Recycling

Water Resources

Biodiversity

Prevention of Pollution

FYE March 2021 Environmental Performance Data for Plants and Offices

t-CO<sub>2</sub>, which is equivalent to 472 containers. We will continue to implement initiatives to reduce CO<sub>2</sub> emissions.

\*6. System for shared use of sea freight containers between importers and exporter. Allows empty containers that have been used for import to be directly reused for export, without first being returned to the originating port, thereby decreasing unnecessary shipment of empty containers from ports.

\*7. Inland function for consolidation of sea freight container cargo. Introduced as part of redevelopment plans for the overland portion of sea freight container transportation systems to save shippers' transport costs and increase transport efficiency.

	2017	2018	2019	2020	2021 (FYE March)
Container fill rate	89%	88%	79%	94%	85%

### ■ Distribution Center

Subaru of America, Inc.'s regional distribution center has participated in the Oregon Clean Fuel Program since 2020 and has begun switching to electric trucks. In addition, Subaru of America reduced CO<sub>2</sub> emissions by installing solar power generation equipment on the new building of the relocated regional distribution center.

### Sales

Dealers in Japan have switched to LED lighting and high-efficiency air conditioning when replacing aging equipment. In addition, Tokyo Subaru Co., Ltd. and Kanagawa Subaru Co., Ltd. have reduced total CO<sub>2</sub> emissions by approximately 2,600 tons in FYE March 2021 by switching to purchases of carbon-neutral power.

We will continue to pivot to decoupling energy consumption and CO<sub>2</sub> emissions with initiatives to create environmentally responsible dealers that care about people.



Employees in charge of Tokyo Subaru and Kanagawa Subaru

### External Partnerships

SUBARU is tackling the climate change challenge through partnerships with suppliers, customers, and industry groups.

#### ■ Alliance with Toyota Motor Corporation

SUBARU and Toyota Motor announced an agreement to jointly develop EV platforms and vehicles applying SUBARU's AWD technologies and Toyota Motor's electrification technologies. This agreement will enable the two automakers to multiply their technical strengths with the goal of creating attractive EV products.

#### ■ Suppliers

We have set out a code of conduct that requires supplier selection and management mechanisms relating to climate change issues, and share the code with our suppliers, asking them to take appropriate actions when providing orientation sessions. This measure has encouraged suppliers to voluntarily work to obtain ISO14001 certification, resulting in a decline in environmental accidents and mismanagement events.

We have also created and run a system to assist voluntary Tier 2 customers\*<sup>8</sup> in seeking Eco Action 21 certification.

\*<sup>8</sup> Secondary subcontractor that supplies parts to motor vehicle manufacturers.

#### ■ Industry Groups

SUBARU is a member of the climate change committee of the Japan Automobile Manufacturers Association, Inc. (JAMA). Also, the President and Executive Vice Presidents are JAMA directors responsible for the body's executive decision making, and decisions made by the JAMA are reflected in SUBARU's mid-term management vision.

#### ■ Customers

Carter Subaru Ballard, a U.S. dealer, runs regional forest conservation campaigns involving its customers. Specifically, for each test drive in a SUBARU car, the dealer donates one tree to be planted in areas along national highways, and an additional three trees for each purchase. This forestation initiative engages customers and local residents and helps them become more aware of environmental issues, including climate change.

# Resource Recycling

## Our Approach

The Subaru Group considers it very important for manufacturing companies to help realize a society where materials are recycled continuously and the sustainability of business is assured through recycling to maximize resource efficiency.

We will help create a society that recycles with the goals of efficient resource recycling throughout the product life cycle, maintaining zero landfill at production bases in Japan and abroad, and taking the 3Rs – reduce, reuse and recycle – to the next level.

## Achievements and Initiatives

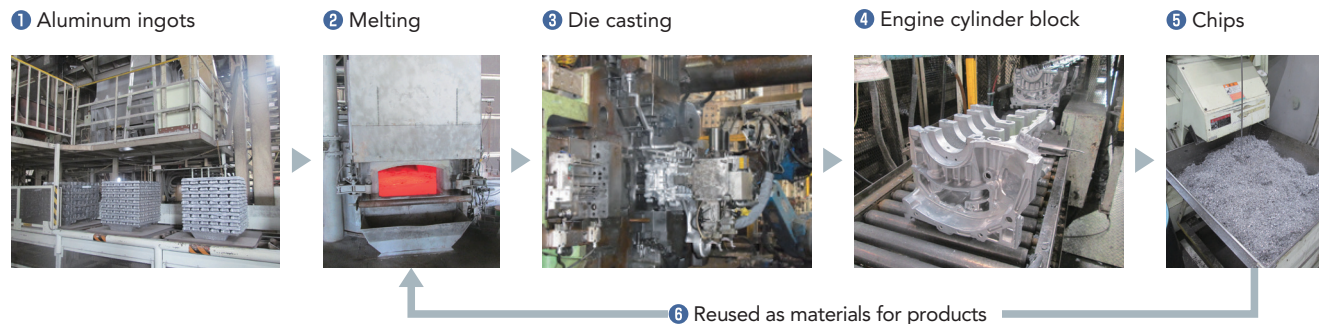
### Raw Materials

SUBARU reuses remnant materials and scrap generated during the production of automobiles as well as end-of-life products that have been collected and other reusables as resources for materials, such as iron, aluminum, and plastics, which account for a large proportion of materials used in making an automobile. Through these efforts, we are promoting closed-loop recycling\*1 to reduce natural resource consumption and waste generation.

\*1 A method by which waste and scrap generated during production along with end-of-life products are recycled as materials for parts of the same quality and then reused to make products of the same kind.

Raw Materials Used in Automobiles in FYE March 2021		Recycling Method
Iron	664,330 tons	Delivered to dealers in the form of iron scrap for reuse
Aluminum	30,468 tons	Re-melted at plants and reused almost entirely
Plastics	23,314 tons	Crushed again at plants and reused partially

### Example: Recycling of aluminum chips



## Production

### Zero Emissions of Waste from Production

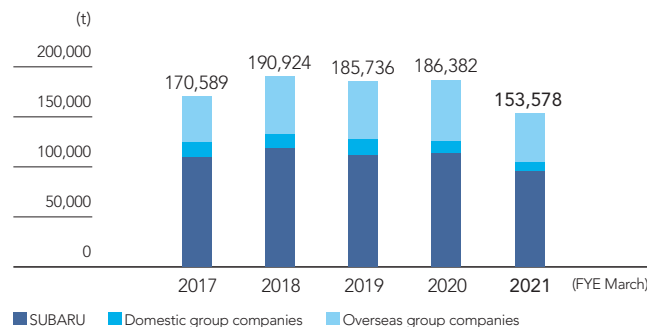
Waste emissions in FYE March 2021 decreased by 32,804 tons due to factors including a decrease in automobile production. As waste is also an important resource, we have maintained zero emissions\*2 of waste since FYE March 2015 through maximum recovery and recycling and proper treatment of waste generated.

\*2 A system in which waste and by-products generated in one industry are utilized as resources by other industries, resulting in no waste discharge. This concept was proposed by the United Nations University in 1994.

### Primary waste products and their recycled products

Primary Waste Product	Primary Recycled Product
Wastewater treatment plant sludge	Raw material for cement
Paint sludge	Iron-making reducer
Waste plastics	Refuse paper and plastic fuel (RPF) (solid fuels, etc.)
Paper waste	Recycled paper, RPF, etc.

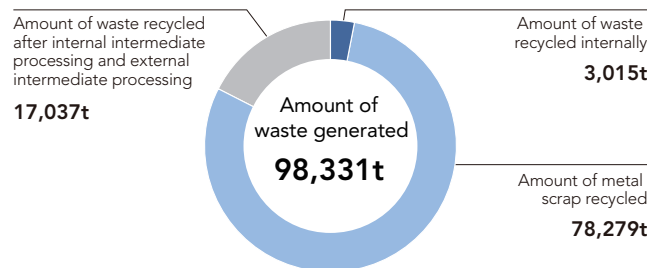
## Waste Generation



Scope: SUBARU: Gunma Plant, Tokyo Office, Utsunomiya Plant, Handa Plant, Handa West Plant  
Group companies in Japan: Yusoki Kogyo K.K., Fuji Machinery Co., Ltd., Ichitan Co., Ltd., Kiryu Industrial Co., Ltd., Subaru Logistics Co., Ltd.  
Overseas group companies: Subaru of Indiana Automotive, Inc., Subaru of America, Inc., Subaru Canada, Inc., Subaru Research & Development, Inc.

\* Amount of waste generated includes metal scrap that is sold.  
\* We do not export or import waste deemed hazardous under the terms of Annex I, II, III, and IV of the Basel Convention 2.

## Amount of Waste Generated and Processed



Based on aggregation of data from Gunma Plant, Tokyo Office, Utsunomiya Plant  
\*Waste is not disposed of in a landfill after external intermediate processing.

## Logistics

### Reuse of Packaging Materials

Subaru Logistics Co., Ltd., which handles packaging and transport for complete knockdown (CKD) parts of SUBARU automobiles, has been actively working on reducing its environmental impact, focusing on the reuse of packaging materials.

The amount of packaging materials reused in FYE March 2021 decreased by 35.1% from the previous year to 661 tons due to production fluctuations at our U.S. factory. Intensity per vehicle was essentially unchanged from FYE March 2020 at 2.4 kg/vehicle.

	2017	2018	2019	2020	2021 (FYE March)
Amount reused (t)	652	699	776	1,020	661
Intensity (kg/vehicle)	1.9	2.0	2.1	2.8	2.4

### • Distribution Centers

Subaru of America Inc.'s regional distribution centers use returnable containers to reduce the amount of cardboard and wood used when transporting parts. Distribution centers in New Jersey and neighboring areas achieved 100% use of returnable packaging materials in 2020.

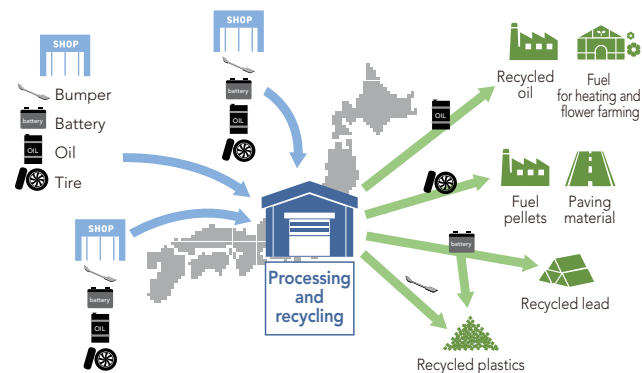
- Environmental Management
- Environmentally Friendly Automobiles
- Climate Change
- Resource Recycling**
- Water Resources
- Biodiversity
- Prevention of Pollution
- FYE March 2021 Environmental Performance Data for Plants and Offices

## Sales

### Zero Emissions of Waste from SUBARU Dealers in Japan

Dealers in Japan are committed to the proper management of waste generated from their business activities and to recycling to achieve zero emissions in Japan. As a result of these efforts, 144,971 used lead-acid batteries (equivalent to 1,915 tons of lead), 5,340 kL of used oil, and 195,111 used tires were collected and recycled during FYE March 2021.

Zero emission initiatives led by dealers, which work most closely with customers, are activities that will contribute more directly to environmental conservation in local communities. The initiatives are expected to help promote proper processing, recycling, and the effective use of resources.



### Recycling of Waste Oil

Waste oil generated at SUBARU dealers in Japan during oil changes is recycled as recycled fuel oil through SUBARU's zero waste emissions scheme. Flower farmers in Yamagata Prefecture grow beautiful poinsettia and cyclamen every year using this recycled fuel oil to heat their greenhouses.

### Proper Processing of End-of-life Vehicles

Under the Act on Recycling, etc. of End-of-Life Vehicles of Japan, car manufacturers are required to fully recover and properly recycle automotive shredder residue (ASR), airbags, and chlorofluorocarbons (CFCs) from their end-of-life automobiles.

SUBARU has been promoting the smooth, proper, and efficient recycling of ASR by establishing, together with 12 other automakers and other companies, the Automobile shredder residue Recycling promotion Team (ART).<sup>\*3</sup> We also ensure proper processing of airbags and CFCs through operations of Japan Auto Recycling Partnership Ltd., established jointly with Japanese automakers and importers.

SUBARU also collaborates with its dealers nationwide by

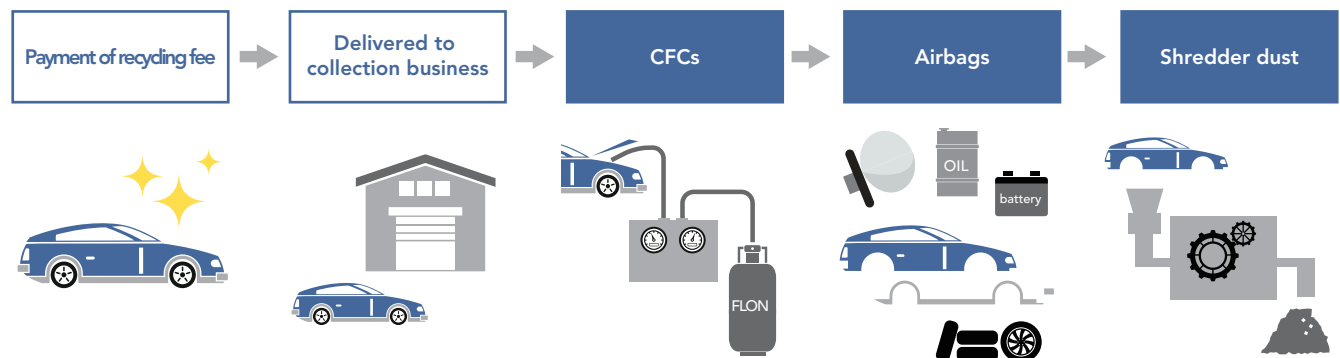
jointly operating an automotive recycling system aimed at promoting the proper processing and raising the recycling rate of ASR, airbags, and CFCs.

In FYE March 2020, the ASR recycling rate was 96.4%, achieving the legal target of 70% for the fiscal year ended March 2016 and thereafter. The airbag recycling rate was 95.0%, exceeding the legal target of 85%, and all CFCs recovered were processed properly.

<sup>\*3</sup> A team to promote the recycling of automotive shredder residue (ASR), organized by 13 automobile manufacturers in December 2003. The team plans the smooth, proper, and efficient recycling of ASR, a waste product that is classified as one of the Parts Specified for Recycling as defined by the Act on Recycling, etc. of End-of-Life Vehicles and required to be recycled under the law.

- Act on Recycling, etc. of End-of-Life Vehicles (Japanese version only)
- Automobile shredder residue Recycling promotion Team (ART) (Japanese version only)

### Automobile Recycling Process



The user pays a recycling fee when purchasing a car.

A car that is no longer used is delivered to a collection business.\*

\* A new or used car dealer, maintenance business, etc. registered with the local authorities.

CFCs are recovered and made harmless through proper processing.

Airbags are removed, safely processed, and recycled. Other parts are also processed (reused or recycled) properly.

The dismantled car is crushed. The shredder dust is recycled.

Environmental  
ManagementEnvironmentally  
Friendly AutomobilesClimate  
ChangeResource  
RecyclingWater  
Resources

Biodiversity

Prevention  
of PollutionFYE March 2021 Environmental  
Performance Data for Plants and Offices

## Overseas Initiatives

### ■ Collaboration with TerraCycle® (Subaru of America, Inc.)

Subaru of America, Inc. (SOA) partnered with U.S. recycling firm TerraCycle® to launch the TerraCycle® Zero Waste Box™ program in 2018 to promote the recycling of various waste products. The program is part of the “Subaru Loves the Earth” initiative aimed at improving waste recycling rates.

Under the program, TerraCycle® Zero Waste Boxes™ have been placed on the premises of around 540 SUBARU dealers in the U.S. to collect recyclables. Customers, employees, and community partner organizations are encouraged to deposit snack packages, used paper cups and plastic containers.

We have kept more than 5 million waste items out of landfills since we started this initiative.

### ■ Zero Landfill Waste Joint Initiative in U.S. National Parks (Subaru of America, Inc.)

Subaru of Indiana Automotive, Inc. (SIA), SUBARU's production base in the U.S., has achieved and maintains zero landfill waste status. SOA has been leveraging SIA's expertise to advance a joint initiative with suppliers, the National Parks Conservation Association, the National Park Service, and others since 2015 to reduce landfill waste generated from three national parks: Yosemite National Park (California), Denali National Park and Preserve (Alaska), and Grand Teton National Park (Wyoming). Subaru of America, Inc. received the Silver Halo Award and the Corporate Stewardship Award in 2020 in recognition of zero landfill initiatives in national parks.

The initiative encompasses a range of activities that include placing more than 500 trash bins in the parks, promoting the composting of organic waste, and increasing the number of water

supply stations. These initiatives are leading to the steady reduction of waste left inside the parks. Unfortunately, however, projects in national parks throughout the U.S. were canceled due to the COVID-19 pandemic in 2020. On a positive note, we became the official vehicle sponsor of 2020 garbage clean-up events in green spaces and parks. These events are co-sponsored by the Yosemite Climbing Association (YCA) and The North Face®.

### ■ Employees Education about Waste Separation (Subaru of China Ltd.)

In May 2020, the labor union of Subaru of China Ltd. sponsored education about waste separation with a quiz delivered via social media, and distributed receptacles for sorting waste.

### ■ Cafeteria Waste Reduction (Subaru of America, Inc.)

The cafeteria of Subaru of America, Inc. introduced a comprehensive oil management fryer system in 2020, and started reducing the number of waste oil containers and converting used cooking oil to biodiesel fuel.

# Water Resources

## Our Approach

Water is an indispensable resource for the Subaru Group's business activities. The risk of droughts, floods, and other disasters is increasing, however, due to climate change, while global population growth and economic development are increasing demand for water and raising the risk of water shortages and pollution.

To help alleviate these risks, the Subaru Group is committed to the proper management of water consumption, as well as to minimizing the environmental impact of its discharged water. We are also actively engaging in activities to conserve forests that have a water storage function.

## Water Management

The Production & Environment Subcommittee manages the Subaru Group's water usage at each site, and both the total amount and amount used per unit of sales are maintained at a constant level.

The share of each water source in the total freshwater consumption at major locations of the Subaru Group is as follows: industrial water 60%, tap water 30%, and groundwater 10%. As we are well aware of the risks involved in using the valuable resource of fresh water, we carefully monitor water consumption by conducting water risk assessments at major locations. Although the current assessment results show that the water risk is not high, we will continue to regularly assess our water risk levels and work to reduce water consumption in order to ensure a continuous water supply.

### Water Risk Assessment

The Subaru Group uses a third-party expert to implement water risk assessments\* to ensure the sustainable use of water. These assessments estimate, among other things, the water supply and demand risk in the river basins in which the production bases are located, the probability of water-related disasters occurring, and the impact on public health and ecosystems on a five-point scale. These assessments showed that water risk at the Gunma Plant, Utsunomiya Plant, and Subaru of Indiana Automotive, Inc. is generally evaluated as moderate or lower.

### ■ Gunma Plant and Subaru of Indiana Automotive, Inc.

According to an assessment in FYE March 2017, the water supply and demand risk at the Gunma Plant and Subaru of Indiana Automotive, Inc., both of which are automobile manufacturing bases, is moderate. It is expected that the current risk level will be maintained for the mid to long term, even when the impact of climate change is taken into account. No biodiversity conservation areas are identified at the lower reaches of the rivers. The vulnerability to water pollution is low.

### ■ Utsunomiya Plant

According to an assessment in FYE March 2018, the water supply and demand risk at the Utsunomiya Plant, which is our base for aerospace manufacturing, is moderate. This risk level is expected to drop in the future as an increase in the river flow rate and decrease in water demand are likely to take place. The plant is not located in an area at high risk of flood inundation or landslides. No biodiversity conservation areas or habitats for rare aquatic life are identified in the areas within 10 km downstream from the site. Going forward, we will continue to accurately monitor our water risk based on the assessments, ensure optimum water consumption in relation to local water demand, and help conserve the environment along the river.

\* Reference databases

(1) WRI Aqueduct water risk atlas, WWF-DEG Water Risk Filter, PREVIEW Global Risk Data Platform, Climate Change Knowledge Portal, Integrated Biodiversity Assessment Tool, National Land Numerical Information: Possible Inundation Area Data and Sediment Disaster Hazard Area Data (Ministry of Land, Infrastructure, Transport and Tourism), NCD-VfU-GIZ Water Scarcity Valuation Tool (Version 1.0), Costing Nature/Water World, (Only for Gunma Plant and Utsunomiya Plant)

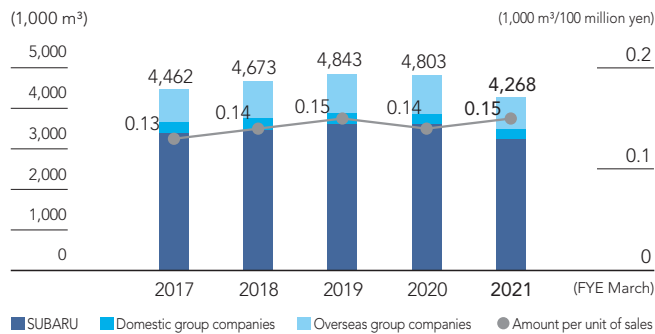


## Achievements and Initiatives

### Water Consumption

The total amount used is monitored and compiled for each location, and reported and verified at biannual meetings. Necessary measures are then taken as appropriate.

#### Water Consumption



Scope:  
 SUBARU: Gunma Plant, Tokyo Office, Utsunomiya Plant, Handa Plant, Handa West Plant  
 Group companies in Japan: Yusoki Kogyo K.K., Fuji Machinery Co., Ltd., Ichitan Co., Ltd., Kiryu Industrial Co., Ltd., Subaru Logistics Co., Ltd.  
 Overseas group companies: Subaru of Indiana Automotive, Inc., Subaru of America, Inc., Subaru Canada, Inc., Subaru Research & Development, Inc.

#### Breakdown of Water Consumption by Water Source at Major Production Bases (1,000 m³)

Region	Industrial Water	Tap Water	Groundwater	Source of Water Intake
Japan	2,654	309	525	Tone River, Watarase River
North America	0	780	0	Groundwater from the Teays Valley aquifer
Total	2,654	1,089	525	

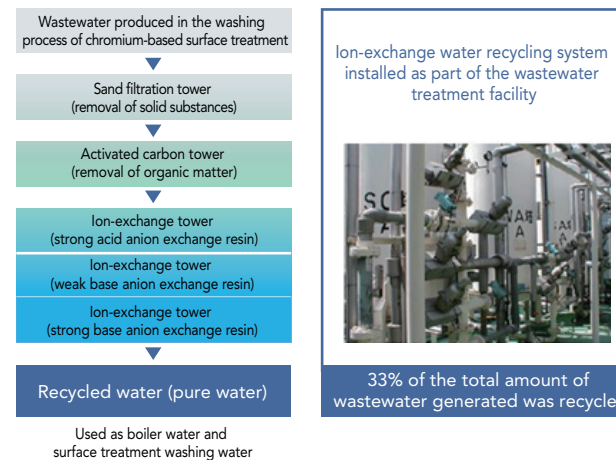
Scope:  
 Japan: Gunma Plant, Tokyo Office, Utsunomiya Plant, Handa Plant, Handa West Plant, Yusoki Kogyo K.K., Fuji Machinery Co., Ltd., Ichitan Co., Ltd., Kiryu Industrial Co., Ltd.  
 North America: Subaru of Indiana Automotive, Inc.

### Water Reuse

#### Utsunomiya Plant

The Utsunomiya Plant has introduced a surface treatment facility equipped with an ion-exchange water recycling system that converts wastewater into pure water. In FYE March 2021, 30,209 m³ (33%) of the total of 91,438 m³ of water used in the surface treatment facility was recycled and utilized at the plant as washing water for the facility.

#### Representative Surface Treatment Wastewater Processing and Recycling



### Water Discharge

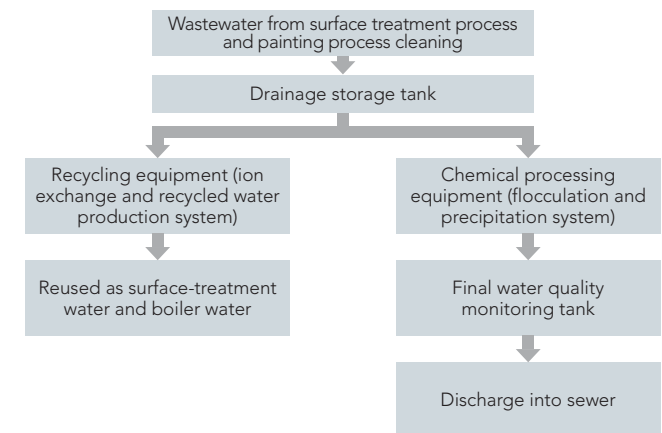
#### Gunma Plant

The wastewater from the Yajima Plant passes down the Ikoi River and into the Tone River. The water of the Tone River is used to irrigate fields and for fish farming. Households downstream also use the water. We treat wastewater from the Gunma Plant appropriately with the awareness that it touches the lives of many people. In addition, we keep crucian carp and koi carp in the oil-water separation tanks at the Yajima Plant, and release them after confirming that the water quality can sustain fish.

#### Utsunomiya Plant

In the Utsunomiya area, after treating wastewater from surface treatment processes we discharge it into the sewer system, and discharge rainwater and cooling water into the river after checking its quality in the final water quality monitoring tank. In addition, we dispose of wastewater from the painting process in the Handa area as industrial waste, and treat domestic wastewater in septic tanks prior to discharging it into Kinuura Port and the Agui River.

#### Utsunomiya Area Wastewater Treatment Process



# Biodiversity

## Our Approach

With the automotive and aerospace businesses as the pillars of SUBARU's operations, our fields of business are the earth, the sky and nature. We promote biodiversity preservation through our business activities, aiming to achieve coexistence with nature.

We support the Declaration of Biodiversity by Keidanren (Japan Business Federation) and participate in the Japan Business and Biodiversity Partnership as part of our active commitment to biodiversity. We also ensure ongoing, biodiversity-friendly business activities by establishing the Guidelines on Biodiversity, while also committing ourselves to the Subaru Forest Project for biodiversity conservation and organizing various events in and outside our business locations aimed at raising people's awareness of biodiversity.

## Guidelines on Biodiversity

The Subaru Group instituted the Subaru Guidelines on Biodiversity in April 2019, which serve as the basis for its approach to biodiversity. The guidelines were formulated with reference to the government's Guidelines for Private Sector Engagement in Biodiversity (Ministry of the Environment) and the Declaration of Biodiversity by Keidanren: Guide to Action Policy, as well as by taking into account international trends in biodiversity management. They are consistent with the Six Priority Areas for CSR and the Subaru Environmental Policies and are designed to ensure that their effectiveness and continuity can be guaranteed.

## Subaru Guidelines on Biodiversity

Our society is supported by biodiversity, which is the source of various blessings from nature.

On the other hand, "biodiversity" is rapidly being lost on a global scale.

We promote biodiversity preservation through our business activities and contribute to the environmental protection of our planet while aiming to coexist with the earth, the sky and nature.

1. We grasp the impact of business activities on biodiversity and reduce their impact. We also promote initiatives leading to further recovery.
2. We strive to raise awareness of biodiversity.
3. We respect international rules concerning biodiversity.
4. We cooperate with stakeholders and strive for preservation of biodiversity.
5. We proactively disclose information on activities regarding biodiversity.

Established in April 2019

## Management System

SUBARU launched a working group in FYE March 2015 to implement biodiversity initiatives. People in charge of environmental activities at SUBARU's production bases and in the procurement and development stages participate in the working group, which regularly develops roadmaps for biodiversity initiatives in all business activities. The working group regularly shares its goals and issues, along with research and surveys related to its plans. The procurement department of the Aerospace Company and the person in charge of social contribution activities have also been participating in the working group since FYE March 2021 and have shared the status of initiatives.

Environmental  
ManagementEnvironmentally  
Friendly AutomobilesClimate  
ChangeResource  
RecyclingWater  
Resources

Biodiversity

Prevention  
of PollutionFYE March 2021 Environmental  
Performance Data for Plants and Offices

## Initiatives

### Japan

#### Subaru Forest Project

Since FYE March 2018, SUBARU has been working on the Subaru Forest Project, an initiative that is directly linked to biodiversity conservation and embodies the idea of coexistence with nature included in the Subaru Environmental Policies.

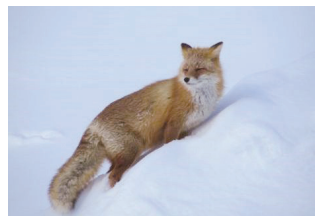
#### • Subaru Forest Bifuka in Hokkaido

In a forest of approximately 100 hectares located on the premises of Subaru Test & Development Center Bifuka Proving Ground, SUBARU started forest management and conservation activities in FYE March 2018, including tree-planting, thinning, and nature conservation. We aim to carry out these activities in collaboration with local communities such as Bifuka Town with a long-term plan to create a forest through artificial afforestation in 50 years.

Furthermore, as a measure against climate change, we have completed the certification and registration process required for the issuance of J-Credit, which we expect to purchase in or after FYE March 2022. In addition, wood from thinning during forest maintenance projects is used as biomass fuel. Wild animals such as ezo red foxes and brown bears that live in the surrounding area have been spotted on the premises, and we are considering measures aimed at coexistence with these animals in cooperation with local governments.



Subaru Test & Development Center Bifuka Proving Ground and its surrounding forests



Ezo red foxes have been spotted on the premises

#### • Sponsorship of a tree-planting ceremony at Bifuka Town

A tree spirit ceremony and a tree-planting ceremony, which had been organized by Bifuka Town annually, were held in October 2020. A total of about 30 administrative staff and people from local forestry associations attended. Although the event was scaled back to prevent the spread of COVID-19, the participants planted 150 Todo fir trees, a variety chosen for its suitability to the local climate, on the 0.7-hectare site in the hope of passing on healthy and abundant forests to the next generation. These Todo firs planted will be ready for felling in 50 years' time.



About 30 people participated in the tree-planting

#### • Donations to fund environmental conservation activities at Matsuyama Marsh

SUBARU, Bifuka Town, and the Hokkaido Government Kamikawa General Subprefectural Bureau signed an agreement to promote conservation of the forest environment in Bifuka Town in 2019. SUBARU has been utilizing the corporate version of a hometown tax donation program – the government's tax incentive scheme to encourage companies to support regional revitalization – to donate three million yen to the Hokkaido Government's Matsuyama Marsh\* Forest Project over three years starting from FYE March 2020. The donations are used, among others, for boardwalk improvements in Matsuyama Marsh. The initial donation was made and used to replace the old signpost and maintain trails so that the trekking route is properly demarcated to preserve valuable vegetation and ensure safety of visitors.

\* Matsuyama Marsh (Bifuka Town): Japan's northernmost high-altitude wetland situated 797 meters above sea level. As the marsh is home to around 200 distinctive plant species, including ferns and mosses, the Ministry of the Environment has selected it as one of Japan's 500 most important wetlands.



A beautiful Matsuyama Marsh landscape



A renewed signpost

#### • Subaru Friendship Forest Akagi (Gunma Prefectural Forest Park)

In April 2018, SUBARU obtained the naming rights to a prefectural forest park in Gunma Prefecture, where its automotive plants are located. The park's name, "Subaru Friendship Forest Akagi," will be used for the five years through 2023. Donations in FYE March 2020 and FYE March 2021 are part of the 9.8 million yen we will donate over the five-year period to the prefectural government to support forest park conservation and management.

- Environmental Management
- Environmentally Friendly Automobiles
- Climate Change
- Resource Recycling
- Water Resources
- Biodiversity**
- Prevention of Pollution
- FYE March 2021 Environmental Performance Data for Plants and Offices

• **Subaru Forest Utsunomiya (Utsunomiya City Forest Park in Tochigi Prefecture)**

Utsunomiya City, Tochigi Prefecture, is where our Aerospace Business is located. We support the conservation and management of a part of a city-owned forest named "Subaru Forest Utsunomiya" in collaboration with the city. We support thinning and the use of thinned wood for benches and bike racks.



A bike rack made of thinned wood



A bench made of thinned wood

→ Social Contribution: Subaru Forest Project

■ **Greenery Conservation and Creation**

Since the Subaru Group's business locations are closely linked to the neighboring natural environments and ecosystems, we make a variety of contributions to the conservation of biodiversity in each area.

• **Saitama Logistics Center**

The Saitama Logistics Center in Kitamoto City has been nurturing and taking care of cherry trees growing on the site since they were received from the city in 2003. The trees are descendants of the Ishito Kabazakura cherry tree, estimated to be 800 years old, at Tokoji Temple in the city. Ishito Kabazakura was designated as a natural monument of Japan in 1922 and is classified as one of Japan's five great cherry trees.



A cherry tree at Saitama Logistics Center



• **Tokyo Office**

Located in Musashino, the Tokyo Office has been planting bamboo-leaf oak, East Asian beautyberry and other species native to the area to enhance the landscape and biodiversity. We also participate in activities to protect the natural features of the region and share opinions with industry, government, academia and the private sector.



Bamboo-leaf oak



East Asian beautyberry

• **Utsunomiya Plant**

At Utsunomiya Plant, based on our recognition that natural vegetation is an important habitat for various living creatures, we deliberately left an area in the site unmowed on a trial basis to monitor its biodiversity. As a result of the monitoring study conducted in cooperation with experts, we found 20 species of insects in the monitoring area, compared to only 11 species found in a mowed area of lawn. Based on this study, we will create an environment suitable for promoting biodiversity in the monitoring area.

**Insects found in the monitoring area**



Noshime-tombo dragonfly (*Sympetrum infuscatum*)



Migratory locust (*Locusta migratoria*)



Asian swallowtail (*Papilio xuthus*)



Asian lady beetle (*Harmonia axyridis*)

Environmental  
ManagementEnvironmentally  
Friendly AutomobilesClimate  
ChangeResource  
RecyclingWater  
Resources

Biodiversity

Prevention  
of PollutionFYE March 2021 Environmental  
Performance Data for Plants and Offices

## • Gunma Plant

### Flower distribution

We distribute flower seedlings to member companies of the Subaru Community Exchange Association on request basis three times a year. We chose varieties that contribute to biodiversity in 2015. With these seedlings, each company promotes greenery conservation. This competition was canceled in FYE March 2021 due to COVID-19, but we are considering resuming it after FYE March 2022, depending on the pandemic situation.

[☐ Subaru Community Exchange Association \(Japanese version only\)](#)

### Elementary school flowerbed contest

This contest provides children in the community with an opportunity to realize the importance of life through the experience of planting flower seedlings donated by SUBARU and creating flowerbeds. We have been holding this flowerbed contest for elementary schools in Ota City and Oizumi since 2015. The event was canceled in FYE March 2021 because of the COVID-19 pandemic, but we will consider resuming it in FYE March 2022, depending on the pandemic situation.

### Participation in Ota City Environmental Creation Council

SUBARU is a sponsor of the Ota City Environmental Creation Council and takes part in a wide range of environmental activities through interaction with the local community. All FYE March 2021 events were canceled due to the COVID-19 pandemic, but we plan to resume participation in FYE March 2022, depending on the pandemic situation.

Activity	Timing	Outline
Volunteer clean-up (removal of invasive species and plants)	June 2021	Collaborate with local residents and businesses to clean up areas where invasive species such as parrotfeather and veronica undulata are taking over.
Next-generation automobile test drive event and making candles from used cooking oil	September 2021	Participate in exhibition booths at test drive events to make the public aware of the Cool Choice campaign. Raise awareness and introduce activities with signage and make candles from used cooking oil to build interest in the environment among residents.
Ishida River Rediscovery Project	October 2021	Survey the water quality of the Ishida River, which flows through the Ota City area, from its headwaters to its mouth, explain what is necessary to maintain good water quality, and be environmentally proactive.
Ota City Environmental Fair	November 2021	We participated in the Ota City Environmental Fair to inform people about the activities of the Ota City Environmental Creation Council through signage, and distributed candles made from used cooking oil at the next-generation automobile test drive event.

### ■ Procurement with Consideration for Biodiversity

SUBARU surveys the use of biological resources, including cowhide and plant-derived materials, to ensure no negative impact on the ecosystem during procurement of raw materials. SUBARU also uses copy paper made from 100% recycled paper pulp that is not from new trees. In addition, SUBARU provides suppliers with Internet-based payment guides, and during FYE March 2022 switched to FSC-certified paper for envelopes used to mail paper payment guides.

Environmental  
ManagementEnvironmentally  
Friendly AutomobilesClimate  
ChangeResource  
RecyclingWater  
Resources

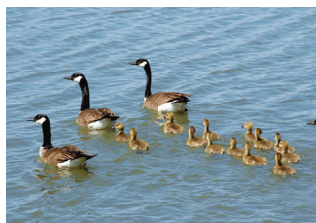
Biodiversity

Prevention  
of PollutionFYE March 2021 Environmental  
Performance Data for Plants and Offices

## Overseas

### ■ Initiatives Aiming at Coexistence with Nature (Subaru of Indiana Automotive, Inc.)

Subaru of Indiana Automotive, Inc. (SIA) worked on ecosystem protection by improving the water retention area and the surrounding greenery on the plant's premises to make them suitable habitats for local wildlife. Thanks to these efforts, the area was certified by the National Wildlife Foundation in 2003 as a wildlife habitat, making SIA the first U.S. automobile production plant to receive the certificate. SIA maintains its surrounding natural environment, where wild Canadian geese and herons feed and rest, and many wild deer live in the native wildlife area behind the recreation center.



Wild Canadian geese



SIA is surrounded by a wealth of nature

### ■ Support for Wildlife and Nature Conservation (Subaru of Indiana Automotive, Inc.)

Subaru of Indiana Automotive has been supporting Wolf Park since 2020. This organization is engaged in wildlife education, conservation and research into protecting wolves and foxes.

Subaru of Indiana Automotive is also working to preserve the environment of nearby streams by sponsoring a cleanup program by a nature conservation organization called Niches Land Trust.

### ■ Afforestation in Wildfire-burned Areas (Subaru of America, Inc.)

In collaboration with the National Forest Foundation, Subaru of America, Inc. (SOA) has been involved in reforestation in areas severely damaged by record forest fires since 2019. The project planted 125,000 trees in 2020 and plans to plant 500,000 trees by 2022.

### ■ Participating in Postal Service-run Nature Conservation Programs (Subaru of America, Inc.)

Starting 2019, SOA, together with printing companies, is involved in a program to donate one cent per postal mail to plant one seedling in each of the areas affected by natural disasters and faced by the challenge of protecting local species. Through this activity, a total of 1,591,900 seedlings were planted in 2019.

### ■ New Facilities That Conserve Nearby Wetlands (Subaru Research & Development, Inc.)

Established in 2020, the technical center is set up to avoid encroaching on wetlands and the many organisms that live there.

# Prevention of Pollution

## Our Approach

For the development of a sustainable society as well as its own business continuity, the Subaru Group considers it essential to prevent the pollution of public water resources, soil, and the atmosphere. The Group endeavors to accurately measure its environmental impact and reduce it to a minimum by making the best use of its environmental management system.

## Achievements and Initiatives

### Compliance with Environmental Laws and Regulations

In addition to complying with environmental laws and regulations, SUBARU has set its own voluntary environmental standard values, which are 20% stricter than the regulatory values set by law. We are committed to never exceeding the regulatory and voluntary thresholds and striving to achieve the goal of zero environmental complaints and zero environmental accidents. Two incidents related to noise and one incident related to water quality exceeded relevant regulations at the Gunma Plant in FYE March 2021. In response, we implemented measures to prevent recurrence, including a review of drainage routes.

Name of the Site	Number of Cases
Gunma Plant	3

→ [FYE March 2021 Environmental Performance Data for Plants and Offices](#)

### Environmental Accidents

We are committed to achieving the goal of zero accidents, both on-site and off-site. In FYE March 2021, two incidents occurred off-site and five incidents occurred on-site. To prevent reoccurrence of the two off-site incidents, in particular, we are considering the implementation of an immediate response system, such as one that issues alert notifications.

Name of the Site	Number of Cases
Gunma Plant	5
Utsunomiya Plant	2

## Environmental Complaints

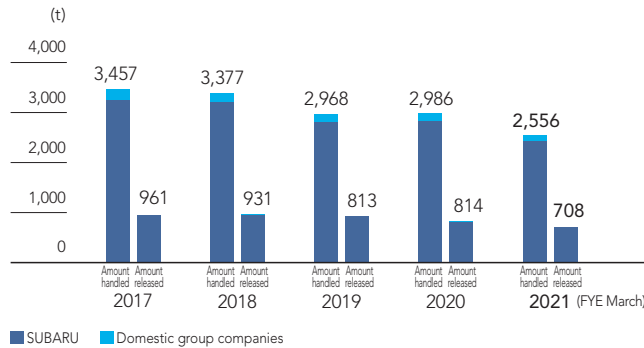
We are committed to achieving the goal of zero environmental complaints, but in FYE March 2021 we received four. We intend to prevent recurrence by uncovering the causes of the complaints.

Name of the Site	Number of Cases
Gunma Plant	4

## Noise, Vibration and Offensive Odors

The Gunma Plant conducts daily patrols premised on the fact that people and measuring instruments respond to odors and noise very differently. In addition, we use hotlines, discussion meetings and factory tours as a means of communicating with local residents and use their valuable feedback to improve production facilities when appropriate.

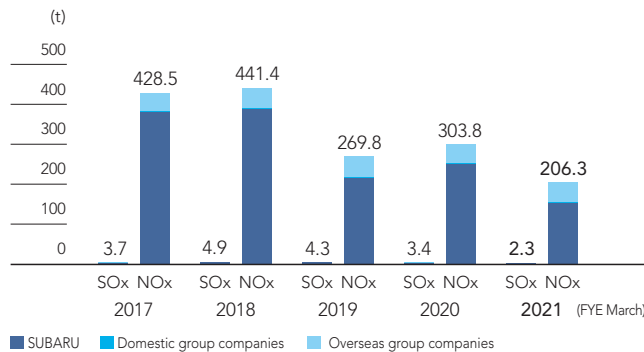
### Chemical Substances Regulated by Japan's Pollutant Release and Transfer Register (PRTR) Act



Scope: SUBARU—Gunma Plant, Tokyo Office, Utsunomiya Plant, Handa Plant, Handa West Plant

Group companies in Japan: Yusoki Kogyo K.K., Fuji Machinery Co., Ltd., Ichitan Co., Ltd., Kiryu Industrial Co., Ltd., Subaru Logistics Co., Ltd.

### NOx and Sox Emissions



Scope: SUBARU—Gunma Plant, Tokyo Office, Utsunomiya Plant, Handa Plant, Handa West Plant

Group companies in Japan: Yusoki Kogyo K.K., Fuji Machinery Co., Ltd., Ichitan Co., Ltd., Kiryu Industrial Co., Ltd., Subaru Logistics Co., Ltd.

Overseas group company: Subaru of Indiana Automotive, Inc.

### VOC

SUBARU manages volatile organic compounds (VOCs) emissions during the automobile painting process using an emissions per unit coating area calculation method. We are reducing the amount of cleaning thinner used in the automobile painting process and increasing recovery to reduce VOC emissions during painting. However, FYE March 2021 emissions increased 7.7% compared with the previous fiscal year to 47.4g/m<sup>2</sup>.

### Soil and Groundwater

We started our voluntary soil and groundwater tests at our locations in 1998 and have since implemented purification measures and groundwater monitoring as required. Since the Soil Contamination Countermeasures Act came into effect in 2003, we have also filed reports and conducted tests in accordance with the law.

### PCB Waste

SUBARU is auditing and treating polychlorinated biphenyl (PCB) waste as planned. We are currently conducting a final survey of the status of PCB waste treatment at each SUBARU base and at group companies and dealers in Japan, and the Subaru Group plans to complete the disposal of PCB waste by the end of FYE March 2023.

### Hazardous Waste

SUBARU has had no significant spillage, nor has it transported waste deemed hazardous under the terms of Annex I, II, III, and IV of the Basel Convention.\*

\* International treaty on the control of movements of hazardous wastes between nations and their disposal procedures.



Environmental  
ManagementEnvironmentally  
Friendly AutomobilesClimate  
ChangeResource  
RecyclingWater  
Resources

Biodiversity

Prevention  
of PollutionFYE March 2021 Environmental  
Performance Data for Plants and Offices

## FYE March 2021 Environmental Performance Data for Plants and Offices

In addition to complying with the laws and regulations, SUBARU sets voluntary standards that are 20% stricter than the legal regulation values to manage the controlled substances. The following shows the regulation values and measured performance data for our plants and offices regarding the main substances.

### Atmosphere (Air Pollution Control Act, Prefectural Regulations)

#### Automotive Business

##### Gunma Plant

###### Main Plant

Substance	Equipment / Facility	Unit	Regulation	Voluntary Standard	Maximum	Average
NOx	Paint drying oven	ppm	230	184	19	16
Particulate matter	Paint drying oven	g/Nm <sup>3</sup>	0.2	0.16	0.002	0.001
VOC	Paint booth, etc.	ppm-C	700	—	664	381

##### Yajima Plant

Substance	Equipment / Facility	Unit	Regulation	Voluntary Standard	Maximum	Average
NOx	Paint drying oven	ppm	230	184	38	18
Particulate matter	Paint drying oven	g/Nm <sup>3</sup>	0.2	0.16	< 0.003	0.001
VOC	Paint booth, etc.	ppm-C	700	—	442	237
VOC	Paint booth, etc.	ppm-C	400	—	305	174

##### Oizumi Plant

Substance	Equipment / Facility	Unit	Regulation	Voluntary Standard	Maximum	Average
NOx	Aluminum melting furnace	ppm	180	144	47	28
Particulate matter	Aluminum melting furnace	g/Nm <sup>3</sup>	0.3	0.24	0.012	0.007

##### Ota North Plant

No applicable equipment / facility

##### Tokyo Office

No applicable equipment / facility

#### Aerospace Company

##### Utsunomiya Plant

###### Main Plant

Substance	Equipment / Facility	Unit	Regulation	Voluntary Standard	Maximum	Average
NOx	Cogeneration	ppm	600	480	159	159
NOx	Heater	g/Nm <sup>3</sup>	150	120	46	45
NOx	Quenching furnace	g/Nm <sup>3</sup>	170	136	< 100	< 100
Particulate matter	Heater	ppm-C	0.1	0.08	< 0.001	< 0.001
Particulate matter	Quenching furnace	ppm-C	0.2	0.16	< 0.01	< 0.01

##### South Plant and 2nd South Plant

No applicable equipment / facility

Environmental  
ManagementEnvironmentally  
Friendly AutomobilesClimate  
ChangeResource  
RecyclingWater  
Resources

Biodiversity

Prevention  
of PollutionFYE March 2021 Environmental  
Performance Data for Plants and Offices

## Handa Plant

Substance	Equipment / Facility	Unit	Regulation	Voluntary Standard	Maximum	Average
SOx	2-ton boiler	ppm	1.5	1.2	< 0.02	< 0.02
NOx	2-ton boiler	ppm	180	144	31	27
Particulate matter	2-ton boiler	g/Nm <sup>3</sup>	0.1	0.08	< 0.002	< 0.002

## Handa West Plant

Substance	Equipment / Facility	Unit	Regulation	Voluntary Standard	Maximum	Average
SOx	2-ton boiler	ppm	1.5	1.2	< 0.02	< 0.02
NOx	2-ton boiler	ppm	180	144	26	23
Particulate matter	2-ton boiler	g/Nm <sup>3</sup>	0.1	0.08	< 0.002	< 0.002

## Water Quality (Water Pollution Prevention Act, Sewerage Act, Prefectural/Municipal Regulations)

## Automotive Business

## Gunma Plant

## Main Plant

Item	Unit	Regulation (Prefectural Regulation)	Voluntary Standard	Maximum	Minimum	Average
Hydrogen ion concentration (pH)	—	5.8~8.6	6.1~8.3	7.7	6.9	7.3
Biochemical oxygen demand (BOD)	mg/L	25	20	8.4	< 1.0	—
Suspended solids (SS)	mg/L	50	40	18.1	< 1.0	—
n-Hexane extract content (Mineral oil content)	mg/L	5	4	< 1.0	< 1.0	< 1.0
n-Hexane extract content (Animal and plant oil and fat content)	mg/L	30	24	< 1.0	< 1.0	< 1.0
Fluorine and its compounds	mg/L	8	6.4	2.4	< 0.2	—
Zinc content	mg/L	2	1.6	0.915	0.030	0.088
Soluble iron content	mg/L	10	8	< 0.1	< 0.1	< 0.1
Soluble manganese content	mg/L	10	8	0.6	< 0.1	—
Phosphorus content	mg/L	16 (8)	6.4	3.3	< 0.1	—
Nitrogen content	mg/L	120 (60)	48	21.6	2.9	9.0

Effluent is discharged into public rivers. Measured at two drainage outlets (New No.2 and No.5 waterways). Values for total phosphorus content and total nitrogen content are daily averages.

Environmental  
ManagementEnvironmentally  
Friendly AutomobilesClimate  
ChangeResource  
RecyclingWater  
Resources

Biodiversity

Prevention  
of PollutionFYE March 2021 Environmental  
Performance Data for Plants and Offices

## ■ Yajima Plant

Item	Unit	Regulation (Prefectural Regulation)	Voluntary Standard	Maximum	Minimum	Average
Hydrogen ion concentration (pH)	—	5.8 ~ 8.6	6.1 ~ 8.3	7.5	7.2	7.3
Biochemical oxygen demand (BOD)	mg/L	25	20	7.7	< 1.0	—
Suspended solids (SS)	mg/L	50	40	4.0	< 1.0	—
n-Hexane extract content (Mineral oil content)	mg/L	5	4	< 1.0	< 1.0	< 1.0
n-Hexane extract content (Animal and plant oil and fat content)	mg/L	30	24	< 1.0	< 1.0	< 1.0
Fluorine and its compounds	mg/L	8	6.4	2.0	< 0.2	—
Zinc content	mg/L	2	1.6	0.662	0.110	0.419
Soluble iron content	mg/L	10	8	< 0.1	< 0.1	< 0.1
Soluble manganese content	mg/L	10	8	< 0.1	< 0.1	< 0.1
Phosphorus content	mg/L	16 (8)	6.4	1.2	0.4	0.7
Nitrogen content	mg/L	120 (60)	48	7.7	4.2	5.8

Effluent is discharged into public rivers. Values for total phosphorus content and total nitrogen content are daily averages.

## ■ Oizumi Plant

Item	Unit	Regulation (Prefectural Regulation)	Voluntary Standard	Maximum	Minimum	Average
Hydrogen ion concentration (pH)	—	5.8 ~ 8.6	6.1 ~ 8.3	7.6	6.8	7.2
Biochemical oxygen demand (BOD)	mg/L	10	8	7.8	< 1.0	—
Suspended solids (SS)	mg/L	10	8	5.6	< 1.0	—
n-Hexane extract content (Mineral oil content)	mg/L	3	2.4	< 1.0	< 1.0	< 1.0
n-Hexane extract content (Animal and plant oil and fat content)	mg/L	30	24	< 1.0	< 1.0	< 1.0
Fluorine and its compounds	mg/L	8	6.4	< 0.2	< 0.2	< 0.2
Zinc content	mg/L	2	1.6	0.146	0.084	0.113
Soluble iron content	mg/L	5	4	0.2	< 0.1	—
Soluble manganese content	mg/L	5	4	< 0.1	< 0.1	< 0.1
Phosphorus content	mg/L	16 (8)	6.4	0.2	< 0.1	—
Nitrogen content	mg/L	120 (60)	48	19.8	3.8	10.5

Effluent is discharged into public rivers. Values for total phosphorus content and total nitrogen content are daily averages.

## ■ Ota North Plant

Item	Unit	Regulation (Prefectural Regulation)	Voluntary Standard	Maximum	Minimum	Average
Hydrogen ion concentration (pH)	—	5.8 ~ 8.6	6.1 ~ 8.3	7.9	7.5	7.7
Biochemical oxygen demand (BOD)	mg/L	25	20	1.1	1.1	1.1
Suspended solids (SS)	mg/L	50	40	2.2	< 1.0	—
n-Hexane extract content (Mineral oil content)	mg/L	5	4	< 1.0	< 1.0	< 1.0
n-Hexane extract content (Animal and plant oil and fat content)	mg/L	30	24	< 1.0	< 1.0	< 1.0
Fluorine and its compounds	mg/L	8	6.4	< 0.2	< 0.2	< 0.2
Zinc content	mg/L	2	1.6	0.172	0.035	0.104
Soluble iron content	mg/L	10	8	0.3	0.1	0.2
Soluble manganese content	mg/L	10	8	0.2	0.1	0.2
Phosphorus content	mg/L	16 (8)	6.4	< 0.1	< 0.1	< 0.1
Nitrogen content	mg/L	120 (60)	48	1.1	1.1	1.1

Effluent is discharged into public rivers. Values for total phosphorus content and total nitrogen content are daily averages.

## ■ Tokyo Office

Item	Unit	Regulation*	Voluntary Standard	Maximum	Minimum	Average
Hydrogen ion concentration (pH)	—	5 ~ 9	5.4 ~ 8.6	8.6	7.7	8.4
Biochemical oxygen demand (BOD)	mg/L	600	480	320	39	125
Suspended solids (SS)	mg/L	600	480	230	138	98
n-Hexane extract content (Mineral oil content)	mg/L	5	4	< 0.5	< 0.5	< 0.5
n-Hexane extract content (Animal and plant oil and fat content)	mg/L	30	24	21.0	1.0	9.0
Total phosphorus	mg/L	16	12.8	9	1.6	4.9
Total nitrogen	mg/L	120	96	78	19	40.6
Soluble manganese	mg/L	10	8	0.01	0.01	0.01
Cyanogen	mg/L	1	0.8	< 0.01	< 0.01	< 0.01

Effluent is discharged into public sewer.

\* Water Pollution Prevention Act, Mitaka City Sewer Regulation

Environmental  
ManagementEnvironmentally  
Friendly AutomobilesClimate  
ChangeResource  
RecyclingWater  
Resources

Biodiversity

Prevention  
of PollutionFYE March 2021 Environmental  
Performance Data for Plants and Offices

## Aerospace Company

## Utsunomiya Plant

## Main Plant (Discharged into public rivers)

Item	Unit	Regulation	Voluntary Standard	Maximum	Minimum	Average
Hydrogen ion concentration (pH)	—	5 ~ 9	5.4 ~ 8.6	8.3	6.5	7.3
Suspended solids (SS)	mg/L	600	480	324	1.0	57
Biochemical oxygen demand (BOD)	mg/L	600	480	332	0.5	79
n-Hexane extract content (Mineral oil content)	mg/L	5	4	< 1.0	< 1.0	< 1.0
n-Hexane extract content (Animal and plant oil and fat content)	mg/L	30	24	16.8	4.6	10.6
Fluorine compounds	mg/L	8	6.4	0.9	0.2	0.2
Cyanogen	mg/L	1	0.8	< 0.1	< 0.1	< 0.1
Cadmium	mg/L	0.03	0.024	0.015	0.003	0.004
Total chromium	mg/L	2	1.6	0.10	0.001	0.03
Hexavalent chromium	mg/L	0.1	0.08	< 0.02	< 0.02	< 0.02

## Main Plant (Effluent is discharged into public rivers.)

Item	Unit	Regulation	Voluntary Standard	Maximum	Minimum	Average
Hydrogen ion concentration (pH)	—	5.8 ~ 8.6	6.0 ~ 8.3	8.2	6.9	7.7
Suspended solids (SS)	mg/L	50	40	1.6	1.0	1.3
Biochemical oxygen demand (BOD)	mg/L	30	24	12.8	0.5	1.9
n-Hexane extract content (Mineral oil content)	mg/L	5	4	< 1.0	< 1.0	< 1.0
n-Hexane extract content (Animal and plant oil and fat content)	mg/L	30	24	1.0	0.0	0.3
Cyanogen	mg/L	1	0.8	< 0.1	< 0.1	< 0.1
Cadmium	mg/L	0.03	0.024	< 0.003	< 0.003	< 0.003
Total chromium	mg/L	2	1.6	< 0.01	< 0.01	< 0.01
Hexavalent chromium	mg/L	0.5	0.4	< 0.02	< 0.02	< 0.02

## South Plant (Discharged into public rivers)

Item	Unit	Regulation	Voluntary Standard	Maximum	Minimum	Average
Hydrogen ion concentration (pH)	—	5 ~ 9	5.4 ~ 8.6	8.5	6.9	7.5
Suspended solids (SS)	mg/L	600	480	375	1	72
Biochemical oxygen demand (BOD)	mg/L	600	480	359	1.3	89
n-Hexane extract content (Mineral oil content)	mg/L	5	4	< 1.0	< 1.0	< 1.0
n-Hexane extract content (Animal and plant oil and fat content)	mg/L	30	24	15	1.0	5.5
Cyanogen	mg/L	1	0.8	< 0.1	< 0.1	< 0.1
Cadmium	mg/L	0.03	0.024	< 0.003	< 0.003	< 0.003
Total chromium	mg/L	2	1.6	< 0.01	< 0.01	< 0.01
Hexavalent chromium	mg/L	0.1	0.08	< 0.02	< 0.02	< 0.02

## South Plant (Effluent is discharged into public rivers.)

Item	Unit	Regulation	Voluntary Standard	Maximum	Minimum	Average
Hydrogen ion concentration (pH)	—	5.8 ~ 8.6	6.0 ~ 8.3	7.7	6.8	7.2
Suspended solids (SS)	mg/L	50	40	6.4	1.6	4.1
Biochemical oxygen demand (BOD)	mg/L	30	24	11	0.7	2.7
n-Hexane extract content (Mineral oil content)	mg/L	5	4	< 1.0	< 1.0	< 1.0
Cyanogen	mg/L	1	0.8	< 0.1	< 0.1	< 0.1
Cadmium	mg/L	0.03	0.024	< 0.003	< 0.003	< 0.003
Total chromium	mg/L	2	1.6	< 0.01	< 0.01	< 0.01
Hexavalent chromium	mg/L	0.5	0.4	< 0.02	< 0.02	< 0.02

Environmental  
ManagementEnvironmentally  
Friendly AutomobilesClimate  
ChangeResource  
RecyclingWater  
Resources

Biodiversity

Prevention  
of PollutionFYE March 2021 Environmental  
Performance Data for Plants and Offices

## ■ 2nd South Plant (Discharged into public rivers)

Item	Unit	Regulation	Voluntary Standard	Maximum	Minimum	Average
Hydrogen ion concentration (pH)	—	5 ~ 9	5.4 ~ 8.6	8.4	6.6	7.6
Suspended solids (SS)	mg/L	600	480	124	2.0	32.8
Biochemical oxygen demand (BOD)	mg/L	600	480	96	1.5	27.3
n-Hexane extract content (Mineral oil content)	mg/L	5	4	< 1.0	< 1.0	< 1.0
n-Hexane extract content (Animal and plant oil and fat content)	mg/L	30	24	9.2	1.0	2.0
Fluorine compounds	mg/L	8	6.4	1.2	0.2	0.3
Cyanogen	mg/L	1	0.8	< 0.1	< 0.1	< 0.1
Cadmium	mg/L	0.03	0.024	< 0.003	< 0.003	< 0.003
Total chromium	mg/L	2	1.6	0.4	0.01	0.05
Hexavalent chromium	mg/L	0.1	0.08	< 0.02	< 0.02	< 0.02

## ■ 2nd South Plant (Effluent is discharged into public rivers.)

Item	Unit	Regulation	Voluntary Standard	Maximum	Minimum	Average
Hydrogen ion concentration (pH)	—	5.8 ~ 8.6	6.0 ~ 8.3	7.7	6.3	6.9
Suspended solids (SS)	mg/L	50	40	2.4	1.2	1.8
Biochemical oxygen demand (BOD)	mg/L	30	24	8.4	0.5	1.7
n-Hexane extract content (Mineral oil content)	mg/L	5	4	< 1.0	< 1.0	< 1.0
Cyanogen	mg/L	1	0.8	< 0.1	< 0.1	< 0.1
Cadmium	mg/L	0.03	0.024	< 0.003	< 0.003	< 0.003
Total chromium	mg/L	2	1.6	< 0.01	< 0.01	< 0.01
Hexavalent chromium	mg/L	0.5	0.4	< 0.02	< 0.02	< 0.02

## Handa Plant

Item	Unit	Regulation	Voluntary Standard	Maximum	Minimum	Average
Hydrogen ion concentration (pH)	—	5 ~ 9	5.8 ~ 8.3	8.1	6.2	7.1
Suspended solids (SS)	mg/L	30	24	14	1.0	1.9
Biochemical oxygen demand (BOD)	mg/L	25	20	16	0.5	2.9
Chemical oxygen demand (COD)	mg/L	25	20	12	1.3	5.3
n-Hexane extract content (Mineral oil content)	mg/L	2	1.6	< 0.5	< 0.5	< 0.5
Cyanogen	mg/L	1	0.8	< 0.1	< 0.1	< 0.1
Cadmium	mg/L	0.03	0.024	< 0.005	< 0.005	< 0.005
Total chromium	mg/L	2	1.6	< 0.04	< 0.04	< 0.04
Hexavalent chromium	mg/L	0.5	0.4	< 0.04	< 0.04	< 0.04

Effluent is discharged into public rivers.

## Handa West Plant

Item	Unit	Regulation	Voluntary Standard	Maximum	Minimum	Average
Hydrogen ion concentration (pH)	—	5.8 ~ 8.6	6 ~ 8.3	7.7	6.7	7.2
Suspended solids (SS)	mg/L	30	24	10.0	2.0	4.8
Biochemical oxygen demand (BOD)	mg/L	25	20	5.8	2.2	3.9
Chemical oxygen demand (COD)	mg/L	25	20	6.5	1.6	4.7
n-Hexane extract content (Mineral oil content)	mg/L	2	1.6	< 0.5	< 0.5	< 0.5
Cyanogen	mg/L	1	0.8	< 0.1	< 0.1	< 0.1
Cadmium	mg/L	0.03	0.024	< 0.005	< 0.005	< 0.005
Total chromium	mg/L	2	1.6	< 0.04	< 0.04	< 0.04
Hexavalent chromium	mg/L	0.5	0.4	< 0.04	< 0.04	< 0.04

Effluent is discharged into public rivers.

Environmental  
ManagementEnvironmentally  
Friendly AutomobilesClimate  
ChangeResource  
RecyclingWater  
Resources

Biodiversity

Prevention  
of PollutionFYE March 2021 Environmental  
Performance Data for Plants and Offices

## Noise (Noise Regulation Act, Prefectural Regulations, Agreements)

## Automotive Business

## Gunma Plant

Measurement Location	Unit	Regulation* (Night)	Voluntary Standard	Number of Measurement Sites	Maximum
Main Plant	dB(A)	55	54	8	52
Yajima Plant	dB(A)	55	54	10	50
Oizumi Plant	dB(A)	50	49	10	53

\* The regulatory level for the Oizumi Plant is specified by the Ota-Oizumi Pollution Prevention Agreement.

\* The Oizumi Plant exceeded regulatory levels due to intermittent noise. We have confirmed that this intermittent noise is no longer occurring.

## Aerospace Company

## Utsunomiya Plant

Measurement Location	Unit	Regulation* (Night)	Voluntary Standard	Number of Measurement Sites	Maximum
Main Plant	dB(A)	60	58	8	49
South Plant	dB(A)	50	48	4	42
2nd South Plant	dB(A)	50	48	3	46

## Handa Plant

Measurement Location	Unit	Regulation* (Night)	Voluntary Standard	Number of Measurement Sites	Maximum
Handa Plant	dB(A)	65	63	3	52

## Handa West Plant

Measurement Location	Unit	Regulation* (Night)	Voluntary Standard	Number of Measurement Sites	Maximum
Handa West Plant	dB(A)	65	63	6	59

## Kisarazu Office

Measurement Location	Unit	Regulation* (Night)	Voluntary Standard	Number of Measurement Sites	Maximum
Kisarazu Office	dB(Z)	50	48	2	41

Environmental  
ManagementEnvironmentally  
Friendly AutomobilesClimate  
ChangeResource  
RecyclingWater  
Resources

Biodiversity

Prevention  
of PollutionFYE March 2021 Environmental  
Performance Data for Plants and Offices

## Vibration (Vibration Regulation Act, Prefectural Regulations, Agreements)

## Automotive Business

## Gunma Plant

Measurement Location	Unit	Regulation* (Night)	Voluntary Standard	Number of Measurement Sites	Maximum
Main Plant	dB(A)	65	64	8	47
Yajima Plant	dB(A)	65	64	10	43
Oizumi Plant	dB(A)	60	59	10	42

## Aerospace Company

## Utsunomiya Plant

Measurement Location	Unit	Regulation* (Night)	Voluntary Standard	Number of Measurement Sites	Maximum
Main Plant	dB(Z)	65	63	8	33
South Plant	dB(Z)	60	58	1	< 30
2nd South Plant	dB(Z)	60	58	3	< 30

## Handa Plant, Handa West Plant

Measurement Location	Unit	Regulation* (Night)	Voluntary Standard	Number of Measurement Sites	Maximum
Handa Plant	dB(Z)	70	68	3	< 30
Handa West Plant	dB(Z)	70	68	5	< 30

## Kisarazu Office

Measurement Location	Unit	Regulation* (Night)	Voluntary Standard	Number of Measurement Sites	Maximum
Kisarazu Office	dB(Z)	55	53	2	< 30

## Odor (Offensive Odor Control Act)

## Automotive Business

## Gunma Plant

[Odor index]

Measurement Location	Regulation* (Night)	Voluntary Standard	Number of Measurement Sites	Maximum
Main Plant	21	20	6	< 10
Yajima Plant	21	20	8	< 10
Oizumi Plant	21	20	6	13

Environmental  
ManagementEnvironmentally  
Friendly AutomobilesClimate  
ChangeResource  
RecyclingWater  
Resources

Biodiversity

Prevention  
of PollutionFYE March 2021 Environmental  
Performance Data for Plants and OfficesChemical Substances Subject to Japan's Pollutant Release  
and Transfer Register (PRTR) System: Amount Handled and Emissions

## Automotive Business

## Gunma Plant (Main Plant, Yajima Plant, Oizumi Plant, Subaru Test &amp; Development Center (SKC))

[Unit: kg/year, excluding dioxins (mg-TEQ/year)]

Chemical Substance	Amount Handled	Atmospheric Emissions	Water Emissions (Public Waters)	Amount Transferred (Sewer)	Amount Transferred	Amount Consumed	Amount Removed through Processing	Amount Recycled
Water-soluble zinc compounds	12,346	0	173	0	0	12,173	0	0
Ethylbenzene	418,007	225,164	0	0	0	34,972	56,270	101,601
Xylene	530,720	221,625	0	0	0	150,524	92,149	66,422
1,2,4-Trimethylbenzene	221,158	1,040	0	0	0	220,119	0	0
1,3,5-Trimethylbenzene	27,725	15,346	0	0	0	1,654	6,160	4,566
Toluene	640,589	211,753	0	0	0	306,222	58,732	63,882
Naphthalene	9,055	5,982	0	0	0	0	1,591	1,483
Nickel compounds	2,484	0	67	0	1,175	1,242	0	0
Bis(2-ethylhexyl) phthalate	5,857	0	0	0	117	5,740	0	0
Hydrogen fluoride and its water-soluble salts	5,560	0	5,060	0	0	500	0	0
n-Hexane	105,341	347	0	0	0	104,994	0	0
Benzene	18,726	62	0	0	0	18,665	0	0
Formaldehyde	11,272	5,339	0	0	1,305	0	3,322	1,305
2-ethoxyethyl acetate (also known as ethylene glycol monoethyl ether acetate)	1,469	1,389	0	0	0	5	23	52
Manganese and its compounds	3,901	0	102	0	1,798	2,000	0	0
Dioxins Unit: mg-TEQ/year	—	0.2688	—	—	0	—	—	—
Cumene	4,985	3,004	0	0	0	0	1,125	857
Methylnaphthalene	11,190	56	0	0	0	11,134	0	0
Total	2,030,385	691,107	5,402	0	4,395	869,945	219,371	240,167
		696,508						

## Tokyo Office

[Unit: kg/year]

Chemical Substance	Amount Handled	Emissions		Amount Transferred		Amount Consumed	Amount Removed through Processing	Amount Recycled
		Atmosphere	Water	Sewer	Waste			
Ethylbenzene	12,306	0	0	0	391	11,915	0	0
Xylene	53,529	1	0	0	1,693	51,835	0	0
1,3,5-Trimethylbenzene	9,263	0	0	0	391	8,872	0	0
Toluene	211,234	7	0	0	7,815	203,412	0	0
1,2,4-Trimethylbenzene	41,344	0	0	0	1,400	39,944	0	0
Benzene	6,670	1	0	0	195	6,474	0	0
n-Hexane	19,338	5	0	0	326	19,007	0	0
Total	353,684	13	0	0	12,212	341,459	0	0
		13						

## Aerospace Company

[Unit: kg/year]

Chemical Substance	Amount Handled	Emissions		Amount Transferred		Amount Consumed	Amount Removed through Processing	Amount Recycled
		Atmosphere	Water	Sewer	Waste			
Toluene	30,345	9,092	0	0	2,556	18,697	0	0
Xylene	2,909	893	0	0	295	1,721	0	0
Hexavalent chromium	2,158	0	0	0	1,158	549	450	0
Total	35,412	9,985	0	0	4,009	20,967	450	0