

## Protecting and Conserving the Environment

### Data on CO<sub>2</sub>

#### Total GHG Emissions by Scope

(t-CO<sub>2</sub>)

	2017	2018	2019	2020	2021
Scope 1	174,342	160,520	151,504	124,639	114,435
Scope 2	962,229	930,471	891,734	822,940	875,482

\* Figures for 2020/2021 obtained third party verification.

### Data on Energy

#### Energy Consumption by Region in 2021

(TJ)

	Electricity	Gas	Oil	Other (steam, wide area heating and air conditioning)
Japan	4,581	1,039	190	256
Americas	337	122	3	0
Europe	305	173	123	70
Asia and Oceania (except Japan)	1,616	60	26	52
Total	6,839	1,394	343	378

\* Electricity includes the amount generated by renewable energy sources.

\* Figures obtained third party verification.

#### Use of Renewable Energy by Region in 2021

(MWh)

(TJ)

	Electric power	Geothermal power
Japan	719	0
Americas	10,854	0
Europe	69,168	15
Asia and Oceania (except Japan)	1,792	0
Total	82,533	15

### Data on Waste

#### Recovery Volume by Type of Waste in 2021

(t)

Type of Waste	Type of Recovery Treatment	Recovery Amount
Paper	Cardboard, paper used by office equipment, toilet paper, raw material for paper products, building board, roadbed materials, etc.	19,476
Plastics	Raw materials for plastic products and other applications, roadbed materials, cement materials, fuels, blast furnace reducing agents, soil improvement agents, etc.	15,203
Metals	Raw materials for metals, roadbed materials, etc.	18,163
Oils, acids and alkalis	Cement materials, fuels, roadbed materials, reuse of oils, chemicals and solvents, etc.	12,075
Sludge	Cement materials, construction materials, aggregates, metal materials, organic fertilizers, compost, etc.	3,889
Wood	Construction boards, bedding for plants, pulp materials, fuels, fertilizers, etc.	3,970
Glass and ceramics	Glass materials, roadbed materials, cement, metal materials, etc.	190
Others	Combustion aid, roadbed materials, soil improvement agents, iron-making materials, metal materials, etc.	7,439
Total		80,406

#### Landfill Amount of General Waste Generated by Business Activities

(t)

	2017	2018	2019	2020	2021
General landfill waste generated by business activities	2,656	2,923	2,725	2,506	2,709

## Atmospheric Emissions

### SOx and NOx Emissions

(t)

	2017	2018	2019	2020	2021
SOx	1.2	1.1	1.0	0.8	0.7
NOx	61.7	56.1	52.9	47.9	44.3

## Data on Water Resources

### Total Wastewater Discharge

(1,000m<sup>3</sup>)

	2017	2018	2019	2020	2021
Japan	4,491	4,377	4,221	4,083	4,192
Outside Japan	3,306	3,086	3,116	2,671	2,669

### Wastewater Amount by Discharge Route in 2021

(1,000m<sup>3</sup>)

	Rivers	Sewerage System	Total
Japan	877	3,315	4,192
Outside Japan	429	2,240	2,669
Total	1,306	5,555	6,861

### 2021 Water Quality Data

(t)

	2021
SS	130
BOD	212

### Water Consumption in 2021 by Type

(1,000m<sup>3</sup>)

	Public Water	Industrial Water	Groundwater	Total
Japan	1,482	2,588	1,201	5,271
Outside Japan	1,781	1,247	247	3,275
Total	3,263	3,835	1,448	8,546

### Use of Recycled Water and Recycling Rate in 2021

	Recycled Water (1,000m <sup>3</sup> )	Recycling Rate (%)
Japan	1,410	26.7
Outside Japan	29	0.9
Total	1,438	16.8

\* Figures obtained third party verification.

## Data Summary

### Amount of Chemical Substances in 2021

(t)

	Amount
Japan	7,865
Outside Japan	816
Total	8,681

### VOC Emissions in 2021

(t)

	VOC Emissions
Japan	116
Outside Japan	149
Total	265

### 2021 List of Chemical Substances Subjected to the PRTR Act

(kg)

Statutory No.	Name of Substance	Emissions Volume		Transfer Volume		
		Atmosphere	Public Water	Sewerage System	Waste	Waste Recyclables
7	N-butyl acrylate	3	0	0	0	24,332
20	2-aminoethanol	667	0	1	89	27,461
31	Antimony and its compounds	7	0	0	0	89
53	Ethylbenzene	945	0	0	18	23,481
71	Ferric chloride	0	0	0	0	128,887
80	Xylene	6,368	0	0	4,025	162,544
125	Monochlorobenzene	137	0	0	159	11,271
128	Methyl chloride	4	0	0	0	0
150	1,4-dioxane	214	0	0	0	313
202	Diphenylamine	0	0	0	0	68
232	N,N-dimethylformamide	183	0	0	0	216
240	Styrene	192	0	0	0	78,947
259	Tetraethylthiuram disulfide	0	0	0	0	6
296	1,2,4-trimethylbenzene	185	0	0	1	39
298	Tolylene diisocyanate	0	0	0	0	276
299	Toluidin	3	0	0	0	0
300	Toluene	6,188	0	0	501	38,330
306	Hexamethylene diacrylate	0	0	0	0	56
308	Nickel	460	0	0	65	831
309	Nickel compounds	0	2	0	6	1,184
343	Pyrocatechol	23	0	0	0	3,643
349	Phenol	76	0	0	5	90
374	Hydrogen fluoride and its water-soluble salts	2	103	5,345	0	16,316
395	Water-soluble salts of peroxodisulfuric acid	0	0	42	0	5,438
408	Poly (oxyethylene) octylphenyl ether	0	0	0	37	521
412	Manganese and its compounds	75	0	0	1	244
438	Methylnaphthalene	33	0	0	0	185
448	Methylenebis (4,1-phenylene) diisocyanate	1	0	0	1	7,159

## Environmental Accounting

We quantitatively ascertain the costs of environmental conservation in our business activities, the outcomes of such activities, and the economic effect associated with environmental conservation measures.

### Environmental Conservation Costs

(Billions of yen)

Category		Details of Key Activities	2021	
			Investment* <sup>1</sup>	Cost* <sup>2</sup>
(1) Business Area Cost			1.61	8.17
Details	1. Pollution Prevention Cost	Air, water and soil pollution prevention, etc.	0.54	3.50
	2. Global Environmental Conservation Cost	Prevention of global warming, energy conservation, efficient logistics, etc.	0.88	2.10
	3. Resource Circulation Cost	Efficient resource use, waste reduction, sorting, recycling, etc.	0.19	2.57
(2) Upstream / Downstream Cost		Green procurement initiatives, product recycling* <sup>3</sup> , etc.	0.10	15.27
(3) Administration Cost		Environmental education, environmental management system, tree planting, information disclosure, environmental advertising, personnel, etc.	0.05	3.60
(4) R&D Cost* <sup>4</sup>		R&D for reducing environmental impact	0.01	0.09
(5) Social Activity Cost		Contributions to organizations, sponsorships, memberships, etc.	0.01	0.17
(6) Environmental Remediation Cost		Soil remediation	0.0	0.08
(7) Other		Other environmental protection-related costs	0.0	0.01
Total			1.78	27.38

\*1 Of total investment in depreciable assets, the amount spent for the purpose of environmental conservation

\*2 Of total costs, the amount incurred for the purpose of environmental conservation

\*3 In connection with the recycling of used products, expenses for product collection, storage, sorting, shipment, etc.

\*4 Expenses for basic research on environmental technologies.

### Environmental Conservation Benefit

Details of Benefit		Environmental Protection Indices	
		Index	Index Value (2021)
Benefit Related to Business Area Cost	Benefit related to resources input into business activities	Energy conservation (t-CO <sub>2</sub> )	50,550
	Benefit related to waste or environmental impact originating from business activities	Recycled resources volume (t)	80,406
Benefit Related to Upstream / Downstream Cost	Benefit related to goods and services produced from business activities	Product energy conservation amount (1,000 t-CO <sub>2</sub> )* <sup>5</sup>	2,270
		Recovery of used products (t)* <sup>6</sup>	55,746

\*5 CO<sub>2</sub> reduction resulting from energy-conservation technologies in electrographic multifunction devices and laser printers.

\*6 Amount of recovered copying machines, cartridges, etc. (including outsourced material recycling and thermal recovery).

### Economic Benefit Associated with Environmental Conservation Activities

(Billions of yen)

Details of Benefit		2021
Revenue	Sales revenue from waste recycling	2.08
Cost Reduction	Reduction in energy costs from energy conservation* <sup>7</sup>	1.80
	Reduction from green procurement	0.0
	Reduction in waste handling costs from resource conservation and recycling* <sup>8</sup>	2.03
Total		5.92

\*7 Reduction in power purchasing costs, etc., due to introduction of new equipment and energy conservation measures.

\*8 Reduction in external waste handling consignment costs due to introduction of new equipment and measures contributing to resource conservation, as well as gains on sales due to conversion of waste into recyclable materials, etc.

### Benefit of Upstream / Downstream Costs

(Billions of yen)

Details of Benefit	2021
Lower energy costs from reduced product energy consumption* <sup>9</sup>	63.66
Profit from used product recycling	9.35

\*9 Calculated as the reduction in energy consumption of electrographic multifunction devices and laser printers sold in 2020 (excluding production printers) × 12 yen/kWh (economic effect for the customer).

### Operational Sites Covered in the Environmental Section

Name	Location
<b>Canon Inc. (1 company, 14 operational sites)</b>	
Headquarters (Shimomaruko)	Tokyo
Yako Office	Kanagawa
Kawasaki Office	Kanagawa
Tamagawa Office	Kanagawa
Kosugi Office	Kanagawa
Hiratsuka Plant	Kanagawa
Ayase Plant	Kanagawa
Fuji-Susono Research Park	Shizuoka
Utsunomiya Plant	Tochigi
Toride Plant	Ibaraki
Ami Plant	Ibaraki
Utsunomiya Optical Products Plant	Tochigi
Optics R&D Center	Tochigi
Oita Plant	Oita
<b>Marketing Headquarters in Japan (1 company)</b>	
Canon Marketing Japan Inc.	Tokyo
<b>Manufacturing Subsidiaries in Japan (23 companies)</b>	
Canon Electronics Inc.	Saitama
Canon Finetech Nisca Inc.	Saitama
Fukui Canon Materials Inc.	Fukui
Top Business Machines Co., Ltd.	Shiga
Canon Precision Inc.	Aomori
Canon Chemicals Inc.	Ibaraki
Oita Canon Inc.	Oita
Miyazaki Canon Inc.	Miyazaki
Canon Optron, Inc.	Ibaraki
Canon Components, Inc.	Saitama
Nagahama Canon Inc.	Shiga
Oita Canon Materials Inc.	Oita
Canon Semiconductor Equipment Inc.	Ibaraki
Canon Ecology Industry Inc.	Ibaraki
Ueno Canon Materials Inc.	Mie
Fukushima Canon Inc.	Fukushima
Canon Mold Co., Ltd.	Ibaraki
Canon ANELVA Corporation	Kanagawa
Canon Machinery Inc.	Shiga
Canon Tokki Corporation	Niigata
Nagasaki Canon Inc.	Nagasaki
Canon Medical Systems Corporation	Tochigi
Canon Electron Tubes & Devices Co., Ltd.	Tochigi

Name	Location
<b>Manufacturing Subsidiaries Outside Japan (20 companies)</b>	
Canon Virginia, Inc.	U.S.A.
Canon Giessen GmbH	Germany
Canon Bretagne S.A.S.	France
Canon Inc., Taiwan	Taiwan
Canon Opto (Malaysia) Sdn. Bhd.	Malaysia
Canon Electronics (Malaysia) Sdn. Bhd.	Malaysia
Canon Hi-Tech (Thailand) Ltd.	Thailand
Canon Dalian Business Machines, Inc.	PRC
Canon Zhuhai, Inc.	PRC
Canon Vietnam Co., Ltd.	Vietnam
Canon Zhongshan Business Machines Co., Ltd.	PRC
Canon (Suzhou) Inc.	PRC
Canon Finetech Nisca (Shenzhen) Inc.	PRC
Canon Machinery (Malaysia) Sdn. Bhd.	Malaysia
Canon Prachinburi (Thailand) Ltd.	Thailand
Canon Business Machines (Philippines), Inc.	Philippines
Canon Production Printing Netherlands B.V.	The Netherlands
Canon Production Printing Germany GmbH & Co. KG	Germany
Axis Communications AB	Sweden
Canon Electronics Vietnam Co., Ltd.	Vietnam
<b>Marketing Headquarters Outside Japan (5 companies)</b>	
Canon U.S.A., Inc.	U.S.A.
Canon Europe Ltd.	United Kingdom
Canon Europa N.V.	The Netherlands
Canon (China) Co., Ltd.	PRC
Canon Australia Pty. Ltd.	Australia
<b>Other Companies Subject to Reporting (74 companies)</b>	
In Japan (18)	
Outside Japan (56)	

\* The scope of third-party verification of GHG includes the 123 companies covered in Canon's consolidated ISO certification and one other company not included in consolidated certification, all listed above.

\* Some sites are excluded from data in the Environment Accounting section, such as sites having a low impact on total values.