

# Environmental Data Book

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**Year Ended March 31, 2021**

**For feedback and suggestions**

Investor Relations Group

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## Positioning of the Environmental Data Book

The Environmental Data Book provides information and data on the Santen Group's environmental efforts. Related information is also available on our Annual Report and website.

### **(Reporting boundary)**

Japan: all facilities including sales offices

Other countries: Principal production facilities, Suzhou Plant (China)

### **(Reporting period)**

Japan: April 1, 2020 – March 31, 2021

Suzhou Plant (China): January 1, 2020 – December 31, 2020

Certain information is updated after the above period.

With regard to the major indicators, figures for previous fiscal years are also given.

### **(Important changes in organization that affect environmental data)**

The business transfer of Tampere Plant (Finland) to Next Pharma was completed by September 30, 2019.

### **(Guidelines referenced)**

This data book has been prepared with reference to the Environmental Reporting Guidelines (2018 edition, Ministry of the Environment of Japan), Basic Guidelines on Accounting for Greenhouse Gas Emissions Throughout the Supply Chain (Ministry of the Environment of Japan / Ministry of Economy, Trade and Industry of Japan, Ver.2.3), Environmental Accounting Guideline (2005 edition, the Ministry of the Environment of Japan), and GRI Standards.


### **(Notational system of numerical results)**

Total and tallies of shares may not always match, due to the effect of rounding and so on.

### **(Currency exchange rate - U.S. dollar amounts)**

In this data book, U.S.dollar amounts have been translated from yen, solely for the convenience of the reader, at the rate of ¥110.71 to U.S.\$1.00, the exchange rate prevailing on March 31, 2021.

### **(Independent Assurance)**

The performance indicators denoted by  this symbol have been assured independently. Independent Assurance Report is posted on P14.

### **(Date of issue)**

July, 2021

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# 1. Environmental management

## ■FY2020 targets/ performances

### 【Santen Group】

		Targets	Performance
Measures against Climate Change	CO <sub>2</sub> emissions	Lower than 34,357t-CO <sub>2</sub>	31,320t-CO <sub>2</sub>
Reducing our Environmental Impact	Final waste disposal rate	Lower than 2.1%	0.3%
	Input water resources	Less than 2.4thousand m <sup>3</sup> /billion yen	2.2 thousand m <sup>3</sup> /billion yen

### 【In Japan】

		Targets	Performance
Measures against Climate Change	CO <sub>2</sub> emissions	Lower than 24,756t-CO <sub>2</sub>	24,224t-CO <sub>2</sub>
Reducing our Environmental Impact	Final waste disposal rate	Lower than 0.01%	0.01%

## ■ISO14001certification

Organization	scope of activity	acquisition date
As integrated organization Shiga Product Supply Center Noto Plant Claire Co., Ltd	Manufacture of Medicinal Chemicals Cleaning of Aseptic and Dust-free Gownings	December 2014 ※
Suzhou Plant (China)	Production of pharmaceuticals	February 2019

※ Shiga Plant was registered in 1999, Noto Plant was in 2003, and were migrated to integrated organization certification in 2014

## ■Environmental management audit

Our ISO 14001-certified plants are constantly subject to regular assessment by an ISO 14001 certification assessment body. We also make an internal audit of our plants that have not yet obtained ISO 14001 certification by following the ISO 14001 standard.

## ■Evaluation of water stress

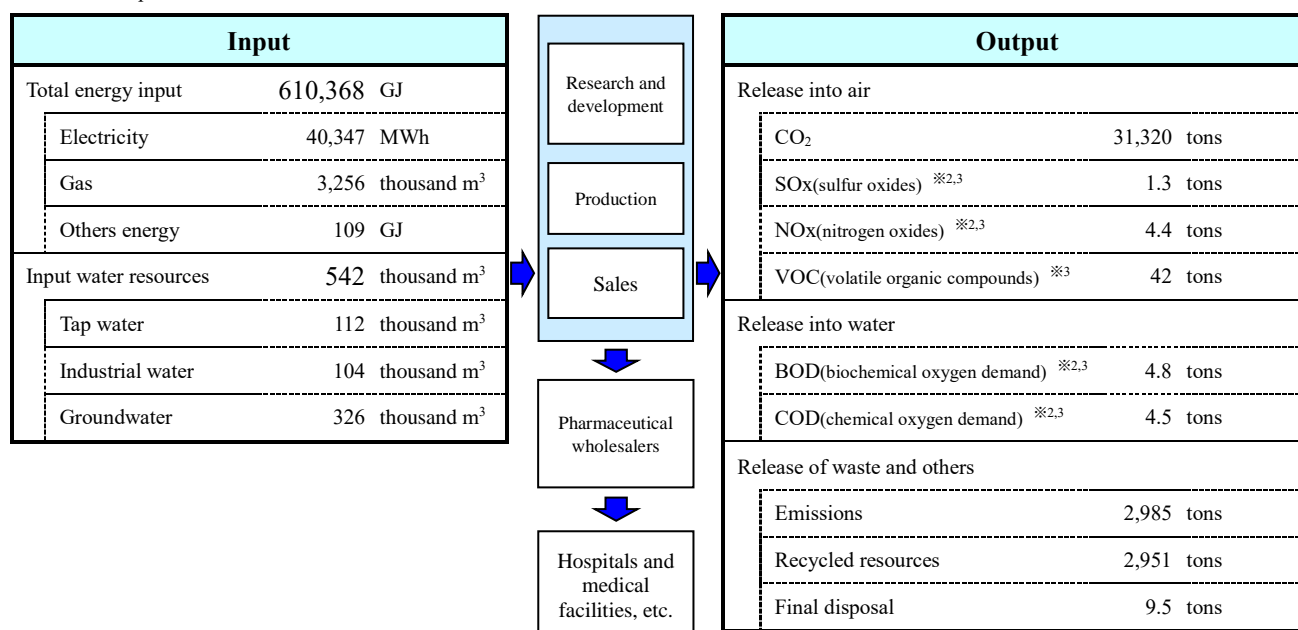
WRI AQUEDUCT is used to evaluate and confirm the water-related risks (the Physical Quantity, Quality and Regulatory Risks) in the area where each factory or research sites is located.

## ■Environment-related accidents and complaints

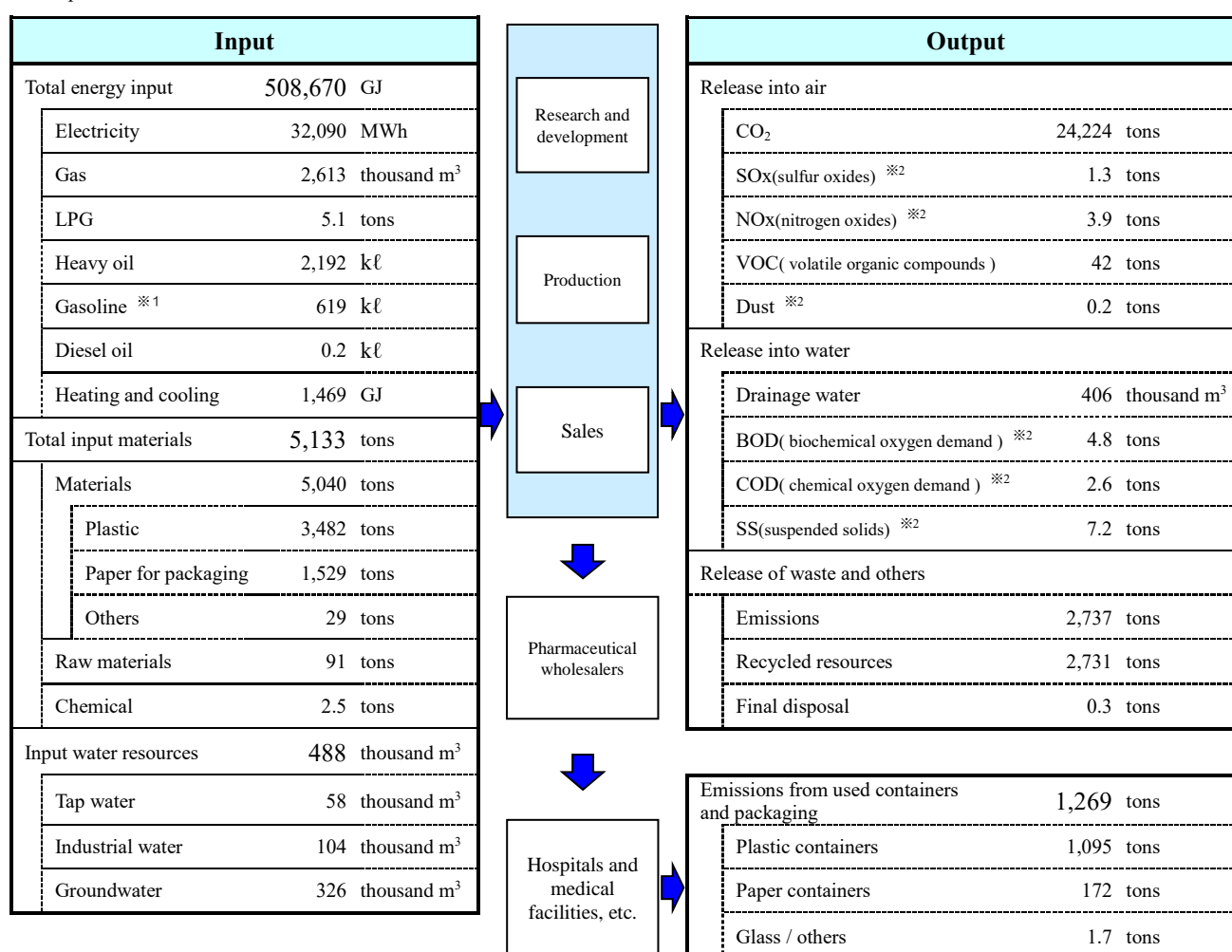
There was no accident that causes environmental pollution, i.e. soil contamination, and no infraction of laws or regulations related environmental issues, at our business sites.

## ■Overview of environmental impact (FY2020)

【Santen Group】



【In Japan】



※1 : Gasoline input is mainly input from commercial vehicle.

※2 : Emission is based on results from regular examinations.

## 2. Measures against Climate Change

### ■Greenhouse gas (CO<sub>2</sub>) emissions trend by scope

【Scope 1 and 2】

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

		Year ended March 31		% Change
		2020	2021	2021/2020
Scope 1	Santen Group	15,924	✓14,847	-6.8
	In Japan	13,779	13,374	-2.9
	Outside Japan	2,145	1,473	-31.3
Scope 2	Santen Group	17,992	✓16,473	-8.4
	In Japan	10,994	10,850	-1.3
	Outside Japan	6,998	5,623	-19.6

【Scope 3】

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

Category	Year ended March 31		% Change	Calculation methodology
	2020	2021	2021/2020	
1 : Purchased goods and services	147,531	160,113	8.5	Estimated figures based on multiplying the weight of raw materials, ingredients, or purchase amount of stock goods by the emission factors of the calculation database.
2 : Capital goods	16,480	✓11,712	-28.9	Estimated figures based on multiplying the amount of money for acquisition of the fixed assets by the emission factors of the calculation database.
3 : Fuel and energy related activities not included in Scope1 and Scope2	2,211	✓2,189	-1.0	Estimated figures based on multiplying the usage of electricity by the emission factors of the calculation database.
4 : Transportation and distribution (Upstream)	763	565	-26.0	Estimated figures based on the transportation distance between the plants/logistics centers and the destinations (pharmaceutical wholesalers, etc.) with using the fuel consumption method or the ton method.
5 : Waste generated in operation	489	446	-8.8	Estimated figures based on multiplying the weight of each waste discharged by the emission factors of the calculation database.
6 : Business travel	2,041	339	-83.4	Estimated figures based on multiplying the travel expenses of each transportation type and accommodation expenses by the emission factors of the calculation database.
7 : Employee commuting	1,485	1,247	-16.0	Estimated figures based on multiplying the commutation expenses of public transportation systems and the amount of gasoline used of the commuter cars by the calculation database.
12 : End-of-life treatment of sold products	207	208	0.5	Estimated figures based on multiplying the weight of each material for the sold products and packaging by the emission factors of the calculation database.
Total	171,207	176,819	3.3	
CO <sub>2</sub> emissions per unit of revenue [t-CO <sub>2</sub> /billion yen]	933	950	1.3	

- Database of emissions unit values for accounting of greenhouse gas emissions, etc., by organizations throughout the supply chain (ver.3.1, Ministry of the Environment of Japan / Ministry of Economy, Trade and Industry of Japan).
- Category 8,10,11,13-15 are not indicated, because of our business characteristics. Category 9 is not calculated and indicated, at present.

## ■ Greenhouse gas (CO<sub>2</sub>) emissions reporting boundary

- Scope 1 and 2: All of the facilities and sales offices in Japan, and major production facility in other countries (Suzhou Plant in China).
- Scope 3 Category 2: Santen Group consolidated companies
- Scope 3 Category 3: All of the facilities and sales offices in Japan

## ■ Greenhouse gas (CO<sub>2</sub>) emissions calculation standards

<b>Scope 1</b>	CO <sub>2</sub> emissions associated with fuel use <b>【Calculation method】</b> Calculated based on fuel consumption x heating value per unit x fuel CO <sub>2</sub> emission factor <b>【CO<sub>2</sub> emission factor】</b> "Progress management coefficient of The Federation of Pharmaceutical Manufacturers' Associations of Japan " at the time of target setting in Japan (2013) (Hereinafter, "FPMAJ progress management coefficient") is adopted.
<b>Scope 2</b>	CO <sub>2</sub> emissions from the purchase of electricity and heat <b>【Calculation method】</b> Calculated based on electricity consumption x electricity CO <sub>2</sub> emission factor + heat usage x heat CO <sub>2</sub> emission factor <b>【CO<sub>2</sub> emission factor】</b> <ul style="list-style-type: none"> <li>• Electricity (Japan) (location-based): Emission factor of " FPMAJ progress management coefficient" at the time of target setting (2013)</li> <li>• Electricity (outside Japan) (location-based): Emission factor of IEA "CO<sub>2</sub> Emissions from Fuel Combustion_2016" when setting global targets including outside Japan (2017)</li> <li>• Heat (Japan) (location-based): "Calculation of greenhouse gas emissions" in the "Act on Promotion of Global Warming Countermeasures" and adopted values based on the "reporting / publication system"</li> <li>• Heat (outside Japan) (location-based): Emission factor of heat supplied by the local corporation</li> </ul>
<b>Scope 3 Category 2</b>	CO <sub>2</sub> emissions associated with the acquisition of property, plant and equipment <b>【Calculation method】</b> Calculated by multiplying the capital investment amount of tangible fixed assets by the emission intensity according to the Ministry of the Environment database <b>【Emissions per unit】</b> [6] Emissions per unit price of capital goods <Secretariat> 06-0260 of Database of emissions unit values for accounting of greenhouse gas emissions, etc., by organizations throughout the supply chain" (ver.3.1, Ministry of the Environment of Japan / Ministry of Economy, Trade and Industry of Japan)
<b>Scope 3 Category 3</b>	Upstream CO <sub>2</sub> emissions of purchased electricity (extraction, production, and transportation of fuels consumed in the generation of electricity consumed by the reporting company) <b>【Calculation method】</b> Calculated by multiplying the purchased electricity consumption by the emission intensity according to the Ministry of the Environment database <b>【Emissions per unit】</b> Electricity emission source of [7] Emission intensity per electricity / heat consumption" of "Database of emissions unit values for accounting of greenhouse gas emissions, etc., by organizations throughout the supply chain" (ver.3.1, Ministry of the Environment of Japan / Ministry of Economy, Trade and Industry of Japan)

## ■ Greenhouse gas (CO<sub>2</sub>) emissions conversion coefficients

Type	Conversion Coefficients
Electricity(Japan)	0.3355 t-CO <sub>2</sub> /MWh
Gas	2.289 t-CO <sub>2</sub> /thousand m <sup>3</sup>
LPG	3.004 t-CO <sub>2</sub> /t
Heavy oil	2.710 t-CO <sub>2</sub> /kl
Gasoline	2.320 t-CO <sub>2</sub> /kl
Diesel oil	2.589 t-CO <sub>2</sub> /kl
Heating and cooling	0.057 t-CO <sub>2</sub> /GJ

## ■Greenhouse gas (CO<sub>2</sub>) emissions trend by operational site

【Santen Group】

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

		Year ended March 31					% Change 2021/2020
		2017	2018	2019	2020	2021	
Greenhouse gas (CO <sub>2</sub> ) emissions		34,135	34,422	35,252	33,916	31,320	-7.7
CO <sub>2</sub> emissions per unit of revenue	[t-CO <sub>2</sub> /billion yen]	171	153	151	140	125	-10.6
	[t-CO <sub>2</sub> /million \$]	19.0	16.9	16.7	15.5	13.9	

U.S.dollar amounts have been translated from yen, solely for the convenience of the reader, at the rate of ¥110.71 to U.S.\$1.00, the exchange rate prevailing on March 31, 2021.

【In Japan】

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

Operational site		Year ended March 31					% Change 2021/2020
		2017	2018	2019	2020	2021	
Shimoshinjo Office (Osaka Office)		246	244	208	182	158	-13.2
Noto Plant		10,817	10,985	11,072	11,487	11,664	2.5
Shiga Product Supply Center		6,543	6,802	6,860	6,397	6,450	0.8
Nara Research and Development Center		4,223	4,151	4,112	4,222	4,108	-2.7
Branch and Sales offices and others		2,835	2,799	2,671	2,484	1,843	-25.8
Total		24,664	24,981	24,923	24,773	24,224	-2.2

For the CO<sub>2</sub> conversion factor for electric power, the emission factor of the Federation of Pharmaceutical Manufacturers' Associations of Japan is used.

CO <sub>2</sub> emissions per unit of revenue	[t-CO <sub>2</sub> /billion yen]	157	145	141	136	130	-4.1
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【Outside Japan】

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

Operational site		Year ended March 31					% Change 2021/2020
		2017	2018	2019	2020	2021	
Tampere Plant (Finland) <sup>※</sup>		2,786	2,659	2,634	1,775	—	—
Suzhou Plant (China) <sup>※</sup>		6,685	6,782	7,695	7,368	7,096	-3.7
Total		9,471	9,441	10,329	9,143	7,096	-22.4

For the CO<sub>2</sub> conversion factor for electric power, the emission factor of the International Energy Agency (IEA) is used.

The business transfer of Tampere Plant (Finland) to Next Pharma was completed by September 30, 2019.

## ■Energy usage trend

【Santen Group】

(unit : GJ)

		Year ended March 31					% Change 2021/2020
		2017	2018	2019	2020	2021	
Energy usage <sup>※</sup>		648,643	656,715	668,462	651,996	610,368	-6.3
Energy usage per unit of revenue <sup>※</sup>	[GJ/billion yen]	3,258	2,919	2,856	2,698	2,445	-9.4
	[GJ/million \$]	361	323	316	299	271	

U.S.dollar amounts have been translated from yen, solely for the convenience of the reader, at the rate of ¥110.71 to U.S.\$1.00, the exchange rate prevailing on March 31, 2021.

※ Energy consumption and consolidated revenue intensity for FY2019 (Year ended March 31, 2020) has been retroactively revised to improve data accuracy.

【In Japan】

(unit : GJ)

Operational site		Year ended March 31					% Change 2021/2020
		2017	2018	2019	2020	2021	
Shimoshinjo Office (Osaka Office)		7,173	7,122	6,085	5,333	4,624	-13.3
Noto Plant		236,784	238,837	241,750	248,878	250,863	0.8
Shiga Product Supply Center		152,713	158,305	159,485	153,698	154,389	0.4
Nara Research and Development Center		98,259	96,359	95,572	97,865	95,696	-2.2
Branch and Sales offices and others		8,880	8,522	3,954	4,050	3,099	-23.5
Total		503,808	509,145	506,845	509,824	508,760	-0.2
Energy usage per unit of revenue	[GJ/billion yen]	3,210	2,962	2,876	2,792	2,733	-2.1

【Outside Japan】

(unit : GJ)

Operational site		Year ended March 31					% Change 2021/2020
		2017	2018	2019	2020	2021	
Tampere Plant (Finland) <sup>※1</sup>		48,791	50,314	49,984	35,342	—	—
Suzhou Plant (China) <sup>※2</sup>		96,044	97,256	111,632	106,503	101,698	-4.5
Total		144,835	147,570	161,617	141,846	101,698	-28.3

※1 The business transfer of Tampere Plant (Finland) to Next Pharma was completed by September 30, 2019.

※2 Energy consumption of the Suzhou Plant (China) in FY2019 (Year ended March 31, 2020) has been retroactively revised to improve data accuracy.

## ■Renewable energy trend

(unit : MWh)

type		Year ended March 31					% Change 2021/2020
		2017	2018	2019	2020	2021	
Solar energy generation <sup>※1</sup>		13	13	11	12	12	2.2
Purchased renewable energy <sup>※2</sup>		554	554	581	1,591	—	—
Total		567	567	592	1,603	12	-99.2

※1 : Generated by solar energy equipment installed in Nara Research and Development Center. Not included in energy consumption.

※2 : Purchased and consumed in Tampere Plant. Not subtracted from the amount of energy consumption.

The business transfer of Tampere Plant (Finland) to Next Pharma was completed by September 30, 2019.



### 3. Reducing our Environmental Impact

#### ■Waste reduction and recycling trend

【Santen Group】

(unit : tons)

		Year ended March 31					% Change 2021/2020
		2017	2018	2019	2020	2021	
Total	Emissions	2,702	2,910	3,178	3,201	2,985	-6.7
	Recycled resources	2,630	2,814	2,888	3,065	2,951	-3.7
	Final disposal	37	62	254	107	9.5	-91.2
	Final disposal ratio	1.4%	2.1%	8.0%	3.3%	0.3%	-3.0ppt
Final disposal per unit of revenue	[t/billion yen]	0.2	0.3	1.1	0.4	0.0	-91.4
	[t/million \$]	0.02	0.03	0.12	0.05	0.00	

U.S.dollar amounts have been translated from yen, solely for the convenience of the reader, at the rate of ¥110.71 to U.S.\$1.00, the exchange rate prevailing on March 31, 2021.

【In Japan】

(unit : tons)

Operational site		Year ended March 31					% Change 2021/2020
		2017	2018	2019	2020	2021	
Shimoshinjo Office (Osaka Office)*	Emissions	109	83	231	99	130	31.1
	Recycled resources	105	78	62	90	126	39.3
	Final disposal	0.2	0.2	159.4	0.2	0.2	-23.1
Noto Plant	Emissions	1,715	1,686	1,793	1,865	1,716	-8.0
	Recycled resources	1,715	1,686	1,793	1,865	1,716	-8.0
	Final disposal	0.0	0.1	0.1	0.1	0.1	-16.7
Shiga Product Supply Center	Emissions	524	711	671	743	837	12.6
	Recycled resources	524	711	671	743	837	12.6
	Final disposal	0.0	0.0	0.0	0.0	0.0	—
Nara Research and Development Center	Emissions	49	53	73	80	54	-32.2
	Recycled resources	47	51	72	78	52	-32.8
	Final disposal	0.1	0.1	0.1	0.1	0.1	-5.2
Total	Emissions	2,398	2,533	2,768	2,787	2,737	-1.8
	Recycled resources	2,391	2,526	2,597	2,777	2,731	-1.7
	Final disposal	0.3	0.4	159.6	0.4	0.3	-17.7
	Final disposal ratio	0.01%	0.01%	5.76%	0.01%	0.01%	±0.0ppt
Final disposal per unit of revenue							
[t/billion yen]							
Final disposal		0.0	0.0	0.9	0.0	0.0	-19.3

\* Regarding the final disposal of year ended March 31 2019 at Shimoshinjo Office (Osaka Office), the emissions was temporarily increased due to disposal of residual equipment, etc. associated by selling of the former head office and the Osaka Plant.

【Outside Japan】

(unit : tons)

Operational site		Year ended March 31					% Change 2021/2020
		2017	2018	2019	2020	2021	
Tampere Plant (Finland)*1	Emissions	266	260	262	234	—	—
	Recycled resources	234	231	237	213	—	—
	Final disposal	4.0	1.7	0.0	2.3	—	—
Suzhou Plant (China)*2	Emissions	38	117	148	179	248	38.4
	Recycled resources	5	57	54	75	220	193.6
	Final disposal	33	60	94	104	9.2	-91.2

\*1 The business transfer of Tampere Plant (Finland) to Next Pharma was completed by September 30, 2019.

\*2 Regarding the emissions at Suzhou Plant in China from FY2020 (Year ended March 31, 2021) we confirmed the treatment status of the waste treatment contractor of reviewing the definition and the aggregation method of the emissions for setting the long-term target.

#### ■Hazardous Waste trend

According to the laws and regulations of various countries, we have defined as “Hazardous Wastes,” specially managed industrial wastes in Japan and hazardous wastes in China, and disclose the results for FY2020.

(unit : tons)

	Year ended March 31					% Change 2021/2020
	2017	2018	2019	2020	2021	
Japan	—	—	—	—	13	—
China	—	—	—	—	152	—
Total	—	—	—	—	164	—

## ■Air pollutants emissions trend

【Santen Group】

(unit : tons)

Substance	Year ended March 31					% Change 2021/2020
	2017	2018	2019	2020	2021	
SOx(sulfur oxides) ※1.2	8.3	6.1	2.2	1.8	1.3	-27.5
NOx(nitrogen oxides) ※1.2	7.5	8.3	4.0	3.9	4.4	14.2
VOC(volatile organic compounds) ※2	36	36	41	46	42	-8.7

【In Japan】

(unit : tons)

Substance	Year ended March 31					% Change 2021/2020
	2017	2018	2019	2020	2021	
SOx(sulfur oxides) ※1	2.7	2.4	1.8	1.4	1.3	-11.4
NOx(nitrogen oxides) ※1	5.1	5.9	3.6	3.6	3.9	9.5
VOC(volatile organic compounds)	34	35	40	45	42	-6.8
Dust ※1	0.4	0.4	0.2	0.2	0.2	3.4

【Outside Japan】

(unit : tons)

Substance	Year ended March 31					% Change 2021/2020
	2017	2018	2019	2020	2021	
SOx(sulfur oxides) ※1.2	5.6	3.7	0.4	0.3	0.0	—
NOx(nitrogen oxides) ※1.2	2.4	2.4	0.4	0.3	0.5	72.1
VOC(volatile organic compounds) ※2	1.2	1.4	1.2	1.0	0.1	-93.9

※1 : Emission is estimated based on results from regular examinations.

※2 : Suzhou Plant in China is excluded until year ended March 31 2020.

## ■Water pollutants emissions trend

【Santen Group】

(unit : tons)

Substance	Year ended March 31					% Change 2021/2020
	2017	2018	2019	2020	2021	
BOD(biochemical oxygen demand) ※1.2	4.5	4.5	8.7	8.8	4.8	-45.6
COD(chemical oxygen demand) ※1.2	5.4	4.8	7.5	7.1	4.5	-37.2

【In Japan】

(unit : tons)

Substance	Year ended March 31					% Change 2021/2020
	2017	2018	2019	2020	2021	
BOD(biochemical oxygen demand) ※1	2.9	3.0	8.7	7.5	4.8	-36.2
COD(chemical oxygen demand) ※1	2.5	2.6	4.9	4.7	2.6	-44.6
SS(suspended solids) ※1	6.5	8.9	7.2	6.1	7.2	19.1

【Outside Japan】

(unit : tons)

Substance	Year ended March 31					% Change 2021/2020
	2017	2018	2019	2020	2021	
BOD(biochemical oxygen demand) ※1.2	1.6	1.5	0.0	1.3	0.0	—
COD(chemical oxygen demand) ※1.2	2.9	2.2	2.6	2.4	1.9	-22.8

※1 : Emission is estimated based on results from regular examinations.

※2 : Suzhou Plant in China is excluded until year ended March 31 2020.

## ■PRTR substances handled (in Japan)

【In Japan】

(unit : tons)

Substance	Year ended March 31					% Change 2021/2020
	2017	2018	2019	2020	2021	
Acetonitrile	1.8	1.8	1.9	1.8	1.9	2.7
Boron and its compounds	0.9	1.0	0.6	0.7	0.6	-14.1
Xylene	0.1	0.6	0.1	0.2	0.4	73.0
Others	0.1	0.2	0.8	0.3	0.2	-36.6
Total※	2.9	3.5	3.3	3.1	3.1	-0.1

※ The data included chemical materials used more than 1 kg in a year.

The number of substances over 1kg used per year	14	30	34	26	27	3.8
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## ■PCB storage

We have no PCB-containing equipment in our business sites since March 2017.

In March 2017, we completed, through a nationally designated service provider, appropriately disposing of the three PCB-containing fluorescent light ballasts that had been stored at our former Osaka Plant, and making them harmless.

## ■Water usage trend

【Santen Group】

(unit : thousand m<sup>3</sup>)

	Year ended March 31					% Change 2021/2020
	2017	2018	2019	2020	2021	
Water usage Total	552	545	559	588	542	-7.9
Water usage per unit of revenue [thousand m <sup>3</sup> /billion yen]	2.77	2.42	2.39	2.43	2.17	-10.8
[thousand m <sup>3</sup> /million \$]	0.31	0.27	0.26	0.27	0.24	

U.S.dollar amounts have been translated from yen, solely for the convenience of the reader, at the rate of ¥110.71 to U.S.\$1.00, the exchange rate prevailing on March 31, 2021.

【In Japan】

(unit : thousand m<sup>3</sup>)

Operational site		Year ended March 31					% Change 2021/2020
		2017	2018	2019	2020	2021	
Shimoshinjo Office (Osaka Office)	Usage	4.3	4.2	3.9	2.9	2.1	-26.0
	Discharge	4.3	4.2	3.9	2.9	2.1	-26.0
Noto Plant	Usage	301	300	294	343	332	-3.3
	Discharge	261	291	286	296	281	-5.3
Shiga Product Supply Center	Usage	110	115	107	93	111	19.0
	Discharge	91	91	93	93	92	-0.7
Nara Research and Development Center	Usage	44	46	55	52	44	-16.1
	Discharge	44	35	43	38	31	-17.2
Total	Usage	460	466	460	491	488	-0.6
	Discharge	401	421	425	430	406	-5.5
Water usage per unit of revenue [thousand m <sup>3</sup> /billion yen]	Usage	2.9	2.7	2.6	2.7	0.26	-2.4
	Discharge	2.6	2.4	2.4	2.4	0.22	-7.3

【Outside Japan】

(unit : thousand m<sup>3</sup>)

		Year ended March 31					% Change 2021/2020
		2017	2018	2019	2020	2021	
Tampere Plant (Finland)	Usage	39	39	41	35	—	—
Suzhou Plant (China)	Usage	53	40	58	61	53	-13.1

The business transfer of Tampere Plant (Finland) to Next Pharma was completed by September 30, 2019.

## ■Prevention of environmental pollution

To conserve the living environments of the areas where our plants are located, we have conducted regular environmental monitoring, and have successfully ensured that all plants stay far below the regulation values based on laws, ordinances, treaties, etc.

### ● Measurements and results of analysis of environmental data (FY2020)

			Noto Plant		Shiga Product Supply Center		Nara Research and Development Center	
			Criteria	Results	Criteria	Results	Criteria	Results
Air pollution	Soot and dust	[g/Nm <sup>3</sup> ]	0.3	0.01	0.2	< 0.005	0.1	0.001
	NOx	[ppm]	150	56	180	36	150	32
	SOx	[Nm <sup>3</sup> /h]	0.98	0.01	—	—	—	—
Water contamination	pH		5.8~8.6	7.2~7.9	5.0~9.0	7.3~8.3	5.0~9.0	6.5~7.7
	BOD	[mg/L]	80	8.0	600	32	1,500	300
	COD	[mg/L]	80	8.6	600	20	—	—
	SS	[mg/L]	120	8.0	600	42	1,500	540
Noise	Morning	[dB]	60	47	50	43	60	43
	Noon	[dB]	65	50	55	49	65	42
	Evening	[dB]	60	48	50	56	60	39
	Night	[dB]	50	48	45	45	50	39
Vibration levels	Noon	[dB]	65	42	70	< 25	65	32
	Night	[dB]	60	42	65	< 25	60	< 25

● Criteria values are specified according to the agreements with municipalities where the workplaces are located.

## 4. Biodiversity

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### ■Forest conservation activities

Because appropriate forest conservation contributes to not only facilitating the absorption of CO<sub>2</sub> but also maintaining the rich natural environment and headwater conservation capacity, leading to the protection of biodiversity, Santen engages in forest conservation activities.

#### • Activities of Noto Plant

Noto Plant supports the Environmental Education Project to conserve nature at Mt.Hodatsu, organized by the board of education of Hodatsushimizu Town, the local government of the area where it is located.

#### • Activities of Shiga Product Supply Center

Santen employees participate in events held by a Shiga Prefecture-based NPO to offer practical training on the management and use of Satoyama (village forest) forests and other matters. However, it was not implemented because of the COVID-19 infections in FY2020.

### ■Local environmental clean-up activities

To contribute to the cleaning up and beautification of local environments, Santen's offices, laboratories and plants, including the Noto Plant, the Shiga Product Supply Center and the Shimoshinjo Office (Osaka Office), conduct clean-up activities in collaboration with local governments and regional organizations. However, we had reduced the scale of activities due to the COVID-19 infections in FY2020.

## 【Reference】 Environmental accounting (in Japan)

Scope: The cost and effect of Environmental preservation of Santen Pharmaceutical Co., Ltd.  
 Period covered: April 1<sup>st</sup>, 2020 to March 31<sup>st</sup> 2021  
 Reference: Environmental Accounting Guideline (2005 edition, the Ministry of the Environment of Japan)

### 【Environmental conservation costs】

(unit : million yen)

category	Year ended March 31, 2020		Year ended March 31, 2021	
	Investments	Expenses	Investments	Expenses
Business area costs	35.8	159.6	51.8	168.7
Pollution prevention	0.3	47.0	0.0	55.2
Global environmental conservation	28.3	57.2	51.8	69.3
Resource circulation	7.2	55.5	0.0	44.1
Upstream/downstream costs	—	10.0	—	9.9
Administration costs	1.1	91.2	2.0	105.2
R&D costs	—	—	—	—
Social activity costs	—	1.4	—	1.4
Environmental damage costs	—	0.1	—	0.2
Total	36.9	262.3	53.8	285.4

- Only the cases that can be determined as related to the purpose of environmental conservation are included in the calculation.
- The cost includes the depreciation amount and was accounted for the same way as the accounting.
- Current investment includes both the investment amount and expense.
- Total number was only a rough estimation because the totals were rounded off.
- The employment cost of the environmental management department and operation and maintenance of the environmental management system was accounted for as administration costs.
- “—” means no cost or no activities.

### 【Economic effects of environmental conservation measures】

(unit : million yen)

category	Year ended March 31, 2020	Year ended March 31, 2021
Profits from sales of waste etc	90.5	55.9
Cost reductions	14.0	15.7

- Only economic effects that can be determined with a high degree of certainty are included in the calculation.

【Environmental conservation effect】

category		unit	Year ended March 31 2020 2021		Environment al burden reduction	% Change 2021/2020
Energy	Total energy usage	GJ	509,824	509,670	1.154	-0.2
	Electricity	kWh	32,412	32,090	321	-1.0
	Gas	thousand m <sup>3</sup>	2,625	2,613	12	-0.5
	LPG	tons	5.6	5.1	0.4	-7.9
	Heavy Oil	kℓ	2,112	2,192	-80	3.8
	Gasoline	kℓ	875	619	256	-29.2
	Heating and Cooling	GJ	2,098	1,469	628	-29.9
Water resources	Total water usage	thousand m <sup>3</sup>	491	488	3	-0.6
	Tap water	thousand m <sup>3</sup>	78	58	20	-25.6
	Industrial water	thousand m <sup>3</sup>	75	104	-29	38.2
	Well water	thousand m <sup>3</sup>	338	326	11	-3.4
Materials	Raw and other materials	tons	5,628	5,131	497	-8.8
Global warming	CO <sub>2</sub> <sup>※</sup>	tons	24,773	24,224	549	-2.2
Atmospheric pollutants	SOx (sulfur oxides)	tons	1.4	1.3	0.2	-11.4
	NOx (nitrogen oxides)	tons	3.6	3.9	-0.3	9.5
	VOC (volatile organic compounds)	tons	45	42	0.0	-6.8
	Dust	tons	0.2	0.2	2.7	3.4
Water pollutants	Discharged water	thousand m <sup>3</sup>	430	406	24	-5.5
	BOD(biochemical oxygen demand)	tons	7.5	4.8	2.7	-36.2
	COD(chemical oxygen demand)	tons	4.7	2.6	2.1	-44.6
	SS(suspended solids)	tons	6.1	7.2	-1.2	19.1
Waste materials	Emissions	tons	2,787	2,737	51	-1.8
	Recycled resources	tons	2,777	2,731	46	-1.7
	Final disposal	tons	0.4	0.3	0.1	-17.7



## Independent Assurance Report

To the President and Chief Executive Officer of Santen Pharmaceutical Co., Ltd.

We were engaged by Santen Pharmaceutical, Co., Ltd. (the “Company”) to undertake a limited assurance engagement of the environmental indicators marked with “✓” (the “Indicators”) for the period from April 1, 2020 to March 31, 2021, included in its Environmental Data Book 2021 (the “Data Book”) for the fiscal year ended March 31, 2021.

### The Company’s Responsibility

The Company is responsible for the preparation of the Indicators in accordance with its own reporting criteria (the “Company’s reporting criteria”), as described in the Data Book.

### Our Responsibility

Our responsibility is to express a limited assurance conclusion on the Indicators based on the procedures we have performed. We conducted our engagement in accordance with the ‘International Standard on Assurance Engagements (ISAE) 3000, Assurance Engagements other than Audits or Reviews of Historical Financial Information’ and the ‘ISAE 3410, Assurance Engagements on Greenhouse Gas Statements’ issued by the International Auditing and Assurance Standards Board. The limited assurance engagement consisted of making inquiries, primarily of persons responsible for the preparation of information presented in the Data Book, and applying analytical and other procedures, and the procedures performed vary in nature from, and are less in extent than for, a reasonable assurance engagement. The level of assurance provided is thus not as high as that provided by a reasonable assurance engagement. Our assurance procedures included:

- Interviewing the Company’s responsible personnel to obtain an understanding of its policy for preparing the Data Book and reviewing the Company’s reporting criteria.
- Inquiring about the design of the systems and methods used to collect and process the Indicators.
- Performing analytical procedures on the Indicators.
- Examining, on a test basis, evidence supporting the generation, aggregation and reporting of the Indicators in conformity with the Company’s reporting criteria, and recalculating the Indicators.
- Making inquiries and reviewing materials including documented evidence of one of the Company’s sites selected on the basis of a risk analysis, as alternative procedures to site visits.
- Evaluating the overall presentation of the Indicators.

### Conclusion

Based on the procedures performed, as described above, nothing has come to our attention that causes us to believe that the Indicators in the Data Book are not prepared, in all material respects, in accordance with the Company’s reporting criteria as described in the Data Book.

### Our Independence and Quality Control

We have complied with the Code of Ethics for Professional Accountants issued by the International Ethics Standards Board for Accountants, which includes independence and other requirements founded on fundamental principles of integrity, objectivity, professional competence and due care, confidentiality and professional behavior. In accordance with International Standard on Quality Control 1, we maintain a comprehensive system of quality control including documented policies and procedures regarding compliance with ethical requirements, professional standards and applicable legal and regulatory requirements.

KPMG AZSA Sustainability Co., Ltd.

Osaka, Japan

June 18, 2021



**SANTEN PHARMACEUTICAL CO., LTD.**