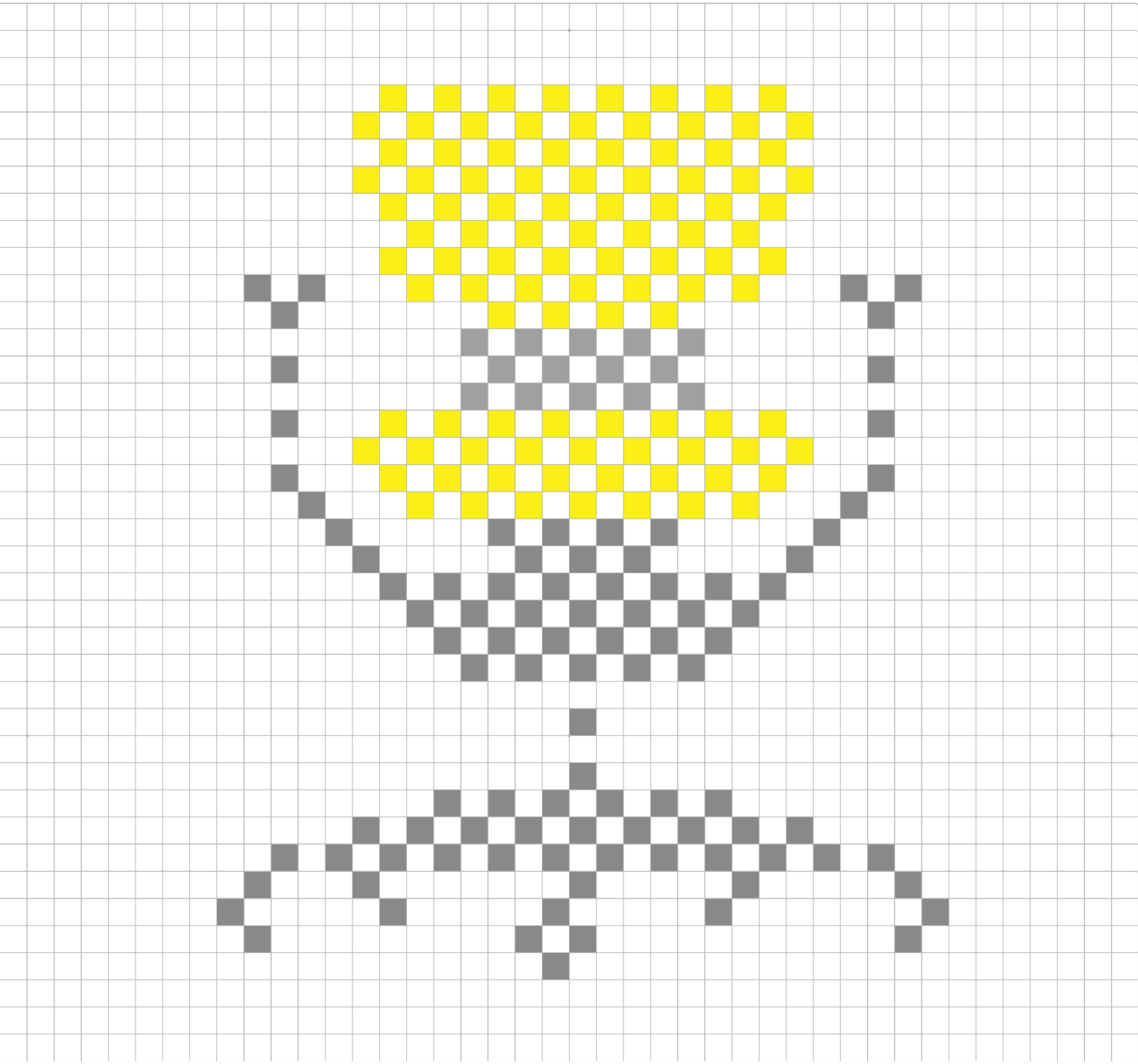
Date



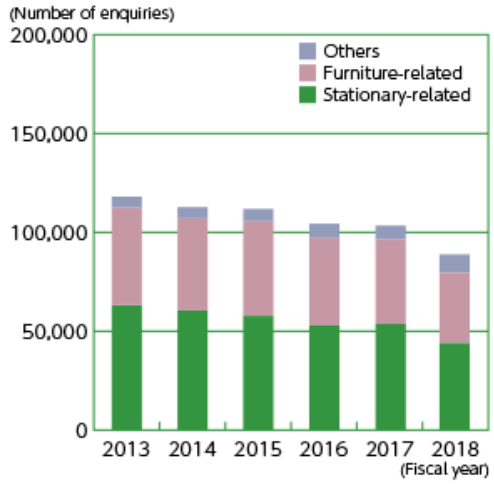
Society

■ **Reporting period**

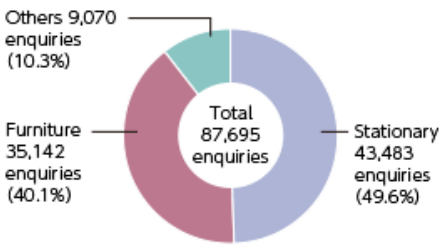
January 1 to December 31 of the applicable year (The results are current as of December 31

Reflecting the views of customers

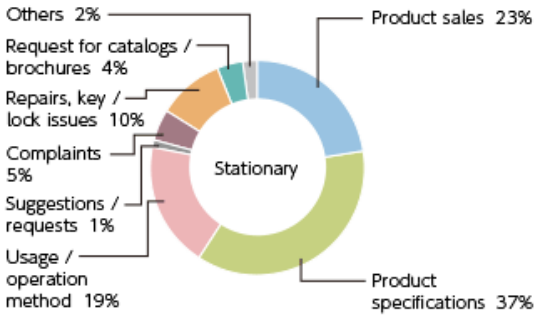
Changes in the number of enquiries

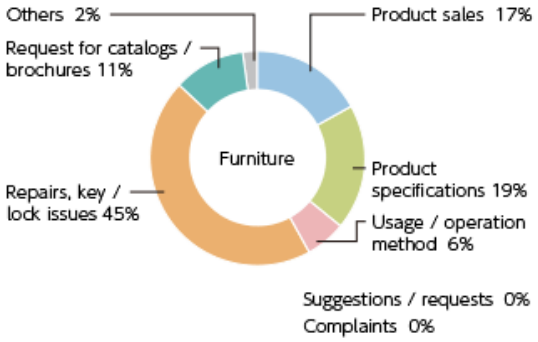


Type of enquiries



Contents of enquiries





Non-consolidated/consolidated

Total number of employees by employment contract and region as of the end of 2018

	Total	Within Japan	Overseas
Regular employees	**6,434**	3,991	2,443
Senior employees	**287**	284	3
Contracted employees	**632**	573	59
Part-time/casual employees	**625**	602	23
Temporary employees	**2,220**	578	1,642
Total	**10,198**	**6,028**	**4,170**

Employee composition

		Subject	2014	2015	2016	2017	2018
Number of Executives and Directors	Inside	Non-consolidated	5	5	5	5	5
	Outside	Non-consolidated	4	3	3	3	4
	Total	**Non-consolidated**	**9**	**8**	**8**	**8**	**9**
Number of Auditors	Inside	Non-consolidated	2	2	2	0	0
	Outside	Non-consolidated	2	2	2	3	3
	Total	**Non-consolidated**	**4**	**4**	**4**	**3**	**3**
Number of employees * Including regular employees and certain contracted employees	Male	Consolidated	5,071	4,877	4,811	4,864	4,865
	Female	Consolidated	1,602	1,791	1,785	1,835	1,919
	Total	**Consolidated**	**6,673**	**6,668**	**6,596**	**6,699**	**6,784**
	Male	Non-consolidated	222	1,501	1,509	1,514	1,498
	Female	Non-consolidated	126	486	490	500	521
	Total	**Non-consolidated**	**348**	**1,987**	**1,999**	**2,014**	**2,019**
	Foreign employees in domestic establishments	Major Companies	-	17	16	13	12
		Non-consolidated	4	16	15	12	12
Number of non-regular employees*1 * Figures within brackets are the percentage of non-regular employees		Consolidated	2,153 (24.39)	2,232 (25.07)	2,244 (25.38)	3,399 (33.66)	1,854 (21.46)
Employment rate of physically challenged persons*2		Special subsidiaries	2.24	2.10	2.11	2.03	2.26

*1 The reason why non-regular employees are increasing rapidly from 2017 to 2018 is that Kokuyo Camlin hired staff to solve the temporary productivity decline due to factory relocation as well as respond to increased production due to increased sales and in-house production rate.

*2 Employment rate as of the end of every June

Major Companies

Total number of employees by contract type and gender as of the end of 2017

	Total	Male	Female
Regular employees	**3,279**	2,499	780
Senior employees	**255**	248	7
Contracted employees	**250**	159	91
Part-time/casual employees	**282**	112	170
Temporary employees	**509**	169	340
Total	**4,575**	**3,187**	**1,388**

*Figures for part-time and casual employees are as of January 1, 2019

Employee composition

Subjects: KOKUYO Co., Ltd., KOKUYO Marketing Co., Ltd., Kaunet Co., Ltd., KOKUYO Engineering & Technology Co., Ltd., KOKUYO Logitem Co., Ltd., KOKUYO Supply Logistics Co., Ltd.

			2014	2015	2016	2017	2018
Number of employees by age group		Under 30	281	280	288	318	376
		30-39	765	676	654	619	605
		40-49	1,563	1,550	1,524	1,443	1,326
		50-59	704	800	826	917	971
		60 or older	131	148	182	205	256
		Total	**3,444**	**3,454**	**3,474**	**3,502**	**3,534**
Average age (years)		Male	44.86	45.46	45.87	46.15	46.35
		Female	37.75	38.35	38.82	39.24	39.36
		Average	**43.42**	**44.02**	**44.42**	**44.70**	**44.80**
Average length of continuous service (years)		Male	19.15	19.74	20.12	20.31	20.52
		Female	13.41	13.96	14.32	14.52	14.30
		Average	**17.99**	**18.57**	**18.93**	**19.09**	**19.14**
Post appointments	Executives and higher	Male	29	20	23	21	20
		Female	1	2	1	0	0
		Foreign nationals	0	0	0	0	0
	Department heads	Male	122	122	122	82	62
		Female	1	3	3	3	3
		Foreign nationals	0	0	0	0	0
	Section chiefs	Male	715	733	723	742	747
		Female	29	33	38	43	48
		Foreign nationals	1	2	1	2	2
	Sub-section chiefs	Male	1,072	1,083	1,100	1,024	1,112

			2014	2015	2016	2017	2018
		Female	176	182	206	229	254
		Foreign nationals	4	4	6	5	7
	Executives and higher	Percentage of women (%)	-	9.09	4.17	0	0
	Department heads		-	2.40	2.40	3.53	4.62
	Section chiefs		-	4.31	4.99	5.48	6.04
	Sub-section chiefs		-	14.39	15.77	18.28	18.59
	Post appointments *Includes up to sub-section chiefs		-	10.10	11.19	12.83	13.58
	Percentage of workforce in management positions (department heads, section chiefs)		-	4.04	4.63	5.29	5.93
	Executives and higher	Percentage of non-Japanese (%)	-	0	0	0	0
	Department heads		-	0	0	0	0
	Section chiefs		-	0.26	0.13	0.25	0.25
	Sub-section chiefs		-	0.32	0.46	0.40	0.51
	Post appointments *Includes up to sub-section chiefs		-	0.28	0.32	0.33	0.4

Recruitment and employment

		2014	2015	2016	2017	2018
Graduate recruitment (persons)	Male	32	35	40	42	47
	Female	22	26	18	30	28
	Total	**54**	**61**	**58**	**72**	**75**
Mid-career recruitment (persons)	Male	33	13	24	28	27
	Female	8	5	13	12	22
	Total	**41**	**18**	**37**	**40**	**49**
Turnover rate * Excluding mandatory retirement	Male	1.23	1.38	1.15	1.43	2.38
	Female	3.17	3.87	2.16	3.11	2.73
	Total	**1.61**	**1.89**	**1.36**	**1.79**	**2.46**

New employment results for 2018

	Total	Male	Female
20s or younger	**86**	53	33
30s	**27**	13	14
40s	**10**	7	3
50s	**1**	1	0
60s or older	**0**	0	0
Total	**124**	**74**	**50**

*Regular employees who entered the company between January and December 2018

Work-life balance

		2014	2015	2016	2017	2018
Total working time (years) *Full-time employees only(including short-day and short-time workers, excluding overseas workers and workers leave of absence)		2,126.1	2,135.3	2,134.8	2,129.8	2,089.1
Non-prescribed work time (years)		298.5	307.6	311.8	304.5	274.9
Long-time worker rate (over 360 hours of total annual overtime)		30.0	30.6	31.3	23.0	28.7
Paid leave acquisition rate *Number of days taken in current year (including portion carried forward from preceding year) / Number of days granted in current year (not including portion carried forward from preceding year)		49.96	46.28	48.20	48.00	53.69
Number of employees taking child-care leave	Male	1	0	4	4	4
	Female	64	80	83	68	52
	Total	**65**	**80**	**87**	**72**	**56**
Number of employees taking nursing-care leave	Male	0	1	1	0	0
	Female	0	0	1	1	2
	Total	**0**	**1**	**2**	**1**	**2**
Yearly education and training costs per employee (yen)		52,305	35,570	41,914	38,297	37,156

Total number of employees who took childcare leave

	Total	Male	Female
20s or younger	**2(8)**	0(6)	2(2)
30s	**23(60)**	4(41)	19(19)
40s	**3(23)**	0(19)	3(4)
50s	**0(2)**	0(2)	0(0)
60s or older	**0(0)**	0(0)	0(0)
Total	**28**	**4**	**24**

*( )Of these, the total number of employees with the right to take childcare leave

Number of employees returning to work after childcare leave (return to work rate)

	Total	Male	Female
20s or younger	**0**	0	0
30s	**17 (94%)**	2	15
40s	**7 (100%)**	0	7
50s	**0**	0	0
60s or older	**0**	0	0
Total	**24 (96%)**	**2**	**22**

*Return to work rate: Number of employees who returned to work in 2018/2018 (number of employees who returned to work + number of employees who returned to work after maternity leave)

Number of employees who returned permanently to work (fixation rate)

	Total	Male	Female
20s or younger	**1 (100%)**	0	1
30s	**28 (93%)**	3	25
40s	**11 (100%)**	0	11
50s	**0**	0	0
60s or older	**0**	0	0
Total	**40 (95%)**	**3**	**37**

*Fixation rate: Employees who returned to work in 2017 and remained for at least 12 months (present as of January 1, 2018)/employees who returned to work in 2017

Health management data

	2016	2017	2018
Regular health checkup attendance rate (%)	97.6	99.0	98.9
Voluntary checkup attendance number (breast cancer, colorectal cancer checkups)	557	269	346
Regular health checkup finding rate (%) *1	40.1	39.0	28.0
Lifestyle-related disease occurrence/specific health checkup attendance rate (%)	95.0	93.2	98
Lifestyle-related disease occurrence/specific health guidance rate (proactive support) (%)	29.5	38.9	35
Lifestyle-related disease occurrence/lifestyle-related disease medical costs (including health insurance dependents)	130 million yen	133 million yen	143 million yen
Stretch check implementation response rate	94.0	94.0	96.0
Stretch check score (deviation value) *2	54	54	54
Number of employees with poor mental health (proportion with high stress) (%)	4.2	4.9	4.9
Number of employees who took leave due to poor mental health	13	15	11
Number of employees who took leave due to other illnesses	4	5	6
Number of employees who retired due to poor mental health	5	6	8
Number of employees who retired due to other illnesses	0	3	5
Employee engagement score (deviation value) *2 *3	49	49	49

*1 Of the health checkup results, the percentage requiring re-testing, detailed testing or treatment, or currently being treated
*2 Score of 50 is the standard value (higher scores indicate better tendencies)
*3 Degree of enthusiasm for work (indicator for enthusiasm and attitude on work as displayed by voluntary behavior and positive emotions)

Labor Health and Safety

Subjects: KOKUYO Co., Ltd. Mie Factory and Shibayama Factory, KOKUYO Product Shiga Co., Ltd., KOKUYO MVP Co., Ltd., IWAMI Paper Industry Co., Ltd.

		2014	2015	2016	2017	2018
Number of work-related accident cases	**Consolidated production factories**	**7**	**11**	**4**	**2**	**5**
	Mie Factory	2	6	2	1	2
	Shibayama Factory	0	0	1	0	0
	KOKUYO Product Shiga	1	4	0	0	0
	KOKUYO MVP	2	1	1	1	3
	IWAMI Paper Industry	2	0	0	0	0
Work-related accident frequency rate *1 (%)	**Consolidated production factories**	**3.12**	**5.04**	**1.87**	**0.87**	**2.10**
	Mie Factory	3.17	9.94	3.27	1.56	2.82
	Shibayama Factory	0	0	1.78	0	0
	KOKUYO Product Shiga	2.39	9.44	0	0	0
	KOKUYO MVP	4.09	2.13	2.14	2.02	5.90
	IWAMI Paper Industry	11.93	0	0	0	0
Work-related accident severity rate *2 *3 (%)	**Consolidated production factories**	**0.06**	**0.00**	**0.01**	**0.01**	**0.14**
	Mie Factory	0.05	0	0.02	0.02	0.20
	Shibayama Factory	0	0	0	0	0
	KOKUYO Product Shiga	0	0.01	0	0	0
	KOKUYO MVP	0.09	0.01	0.00	0.00	0.39
	IWAMI Paper Industry	0.38	0	0	0	0
Number of work-related accident days of absence	**Consolidated production factories**	**139**	**7**	**20**	**15**	**415**
	Mie Factory	30	0	16	14	173
	Shibayama Factory	0	0	3	0	0
	KOKUYO Product Shiga	0	4	0	0	0
	KOKUYO MVP	45	3	1	1	242
	IWAMI Paper Industry	64	0	0	0	0

*From 2016, the work-related accident case calculations are limited to accidents requiring one or more days absence from work (excluding commuting accidents). (Including accidents resulting in time off work in 2014 and 2015)

*1 Work-related accident frequency rate =

$$\frac{\text{Number of employees involved in accidents requiring absence from work}}{\text{Total number of working hours}} \times 1{,}000{,}000$$

*2 Work-related accident severity rate =

$$\frac{\text{Number of work-days lost}}{\text{Total number of working hours}} \times 1{,}000$$

*3 The work-related accident rate is shown with the third decimal place rounded off

"0" ……Indicates that there were no deaths due to work-related accidents.

"0.00" … Shows that when the third decimal place was rounded off, the number was smaller than two decimal places.

Environmental Performance Data

■ **Reporting Period**

Fiscal 2018 (January 1 to December 31, 2018)

■ **Guidelines Used for Reference**

Ministry of the Environment, Environmental Report Guidelines (2012 Edition)
Ministry of the Environment, Environmental Accounting Guidelines (2005 Edition)
Global Reporting Initiative (GRI), Sustainability Reporting Guidelines

■ **Organizational Units Covered**

From 2012, the scope of coverage was extended to all consolidated subsidiaries.
However, since the targets for 2018 were set for those companies in Group A shown in the table below, only data on this group has been disclosed.

		Consolidated Subsidiaries	Other Subsidiaries and Affiliates
B	A	KOKUYO Co., Ltd.	
		Kaunet Co., Ltd., KOKUYO Marketing Co., Ltd., KOKUYO Engineering & Technology Co., Ltd., KOKUYO Supply Logistics Co., Ltd., KOKUYO Logitem Co., Ltd., KOKUYO Product Shiga Co., Ltd., KOKUYO MVP Co., Ltd., KOKUYO Vietnam Co., Ltd., KOKUYO Malaysia Sdn. Bhd., KOKUYO Finance Co., Ltd. KOKUYO & Partners Co., Ltd.	KOKUYO K Heart Co., Ltd., KOKUYO-IK (Thailand) Co., Ltd., KTL
		LmD International Co., Ltd., Actus Co., Ltd., KOKUYO (Shanghai) Management Co., Ltd., KOKUYO Commerce (Shanghai) Co., Ltd., KOKUYO Furniture (China) Co., Ltd., KOKUYO Design Consultants (Shanghai) Co., Ltd., KOKUYO International Asia Co., Ltd., KOKUYO International (Malaysia) Sdn. Bhd., KOKUYO Vietnam Trading Co., Ltd., KOKUYO Camlin Ltd.	KOKUYO Hokkaido Sales Co., Ltd., KOKUYO Tohoku Sales Co., Ltd., KOKUYO Kitakanto Sales Co., Ltd., KOKUYO Tokai Sales Co., Ltd. KOKUYO Hokuriku- Niigata Sales Co., Ltd., KOKUYO Sanyo-Shikoku Sales Co., Ltd., Heartland Co., Ltd.

A: The scope of reporting coverage up to fiscal 2011 was Group A and included KOKUYO Co., Ltd., 12 consolidated subsidiaries, and 3 other subsidiaries and affiliates.
B: The scope of reporting coverage from fiscal 2012 is Group B and includes KOKUYO Co., Ltd., 21 consolidated subsidiaries, and 10 other subsidiaries and affiliates for FY2017.

KOKUYO S&T and KOKUYO Furniture were integrated with KOKUYO Co., Ltd. in October 2015, but there has been no impact on the environmental performance data disclosed.

2018 Results

Environmental Policy	Goals and Results for 2017		Evaluation
	Goals	Results	
Prevention of global warming	Reduction of CO_2 emissions Total year-on-year reduction in volume: +0.2% (Excluding impact of production: -2.6%)	＋2.5% (Excluding impact of production: -2.4%)	○
	Year-on-year reduction in unit energy consumption: Kept to an increase of only 1.3%	Per unit of sales: -1.6%	○
Resource Conservation and Recycling	Improve recycling rate in relation to total waste volume • Business offices: 96.8% and over • Construction sites: 82.7% and over	• Business offices: 96.6% • Construction sites: 88.0%	× ○
Procurement, development, and provision of eco-friendly products	Maintain eco x zero	Maintained	○
Information disclosure and communication	Publication of CSR report 2019	Publication of CSR report 2019	○
Environmental management	ISO 14001: Regular inspection in 2015	Regular inspection results • Strong point: 1 cases • Good points: 8 cases • Matters pointed out for improvement: 1 cases • Opportunities for improvement: 21cases	○

* As goals have been set based on Group A for organizations subject to reporting, the results for such organizations are disclosed.

Environmental Friendliness Efficiency Indicators

The KOKUYO Group designates unique environmental friendliness efficiency indicators as indices to comprehensively evaluate financial performance and impact on the global environment. These indicators show the extent to which products and services are being offered to society with respect to specific environmental load and correspond to the following four items.

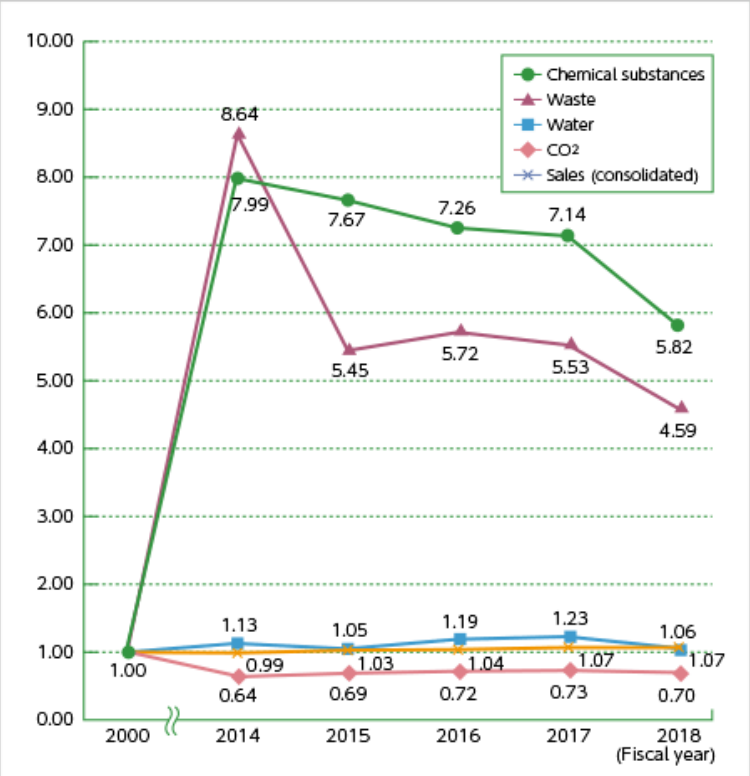
Environmental friendliness efficiency indicator =

$$\frac{\text{Current fiscal year (Sales / Environmental load data)}}{\text{Baseline fiscal year (Sales / Environmental load data)}}$$

1. CO_2emissions
2. Final waste disposal
3. Usage of chemical substances subject to PRTR regulations
4. Water usage

Using fiscal 2000 as the baseline for each indicator, the progress status for each fiscal year can be determined.

Environmental Friendliness Efficiency Indicators



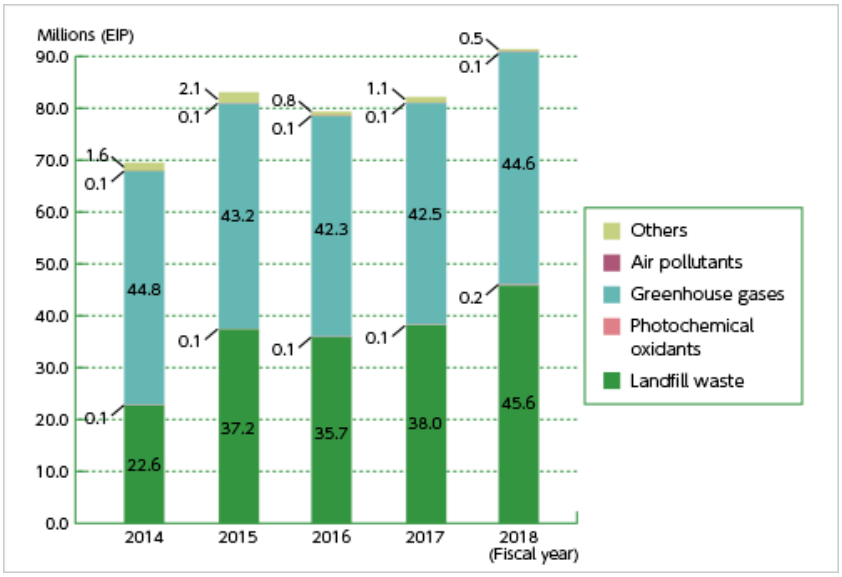
* The scope of reporting coverage up to fiscal 2011 was Group A, and from fiscal 2012, it was expanded to Group B.
* Chemical substances were calculated according to the amount of PRTR Law Class I Designated Chemical Substances used and handled by the business establishments subject to notification under the PRTR Law.
* The third party verification pointed out that a part of the data on waste materials of KOKUYO Vietnam was omitted from the report calculations. From 2015, this data is included in the report.

JEPIX

JEPIX (Japan Environmental Policy Priorities Index) is a method of quantifying the individual amount of different types of environmental loads, such as greenhouse gas emissions and air pollutants, as single indicators called Environmental Impact Points (EIP). The EIP is calculated by multiplying the environmental load of each environmentally harmful chemical by the integrated coefficient, which is calculated from the ratio between Japan's environmental policy target and the actual amount of emissions (environmental friendliness factor), and then obtaining the sum total of them all.

Environmental impact point (EIP) =
Σ (environmental loads x environmentally friendliness factors)

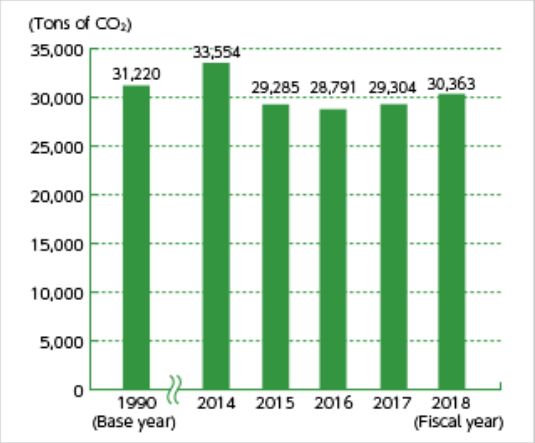
JEPIX



* The scope of reporting coverage up to fiscal 2011 was Group A and from fiscal 2012, it was expanded toGroup B.
* The third party verification pointed out that a part of the data on waste materials of KOKUYO Vietnam was omitted from the report calculations. From 2015, this data is included in the report.

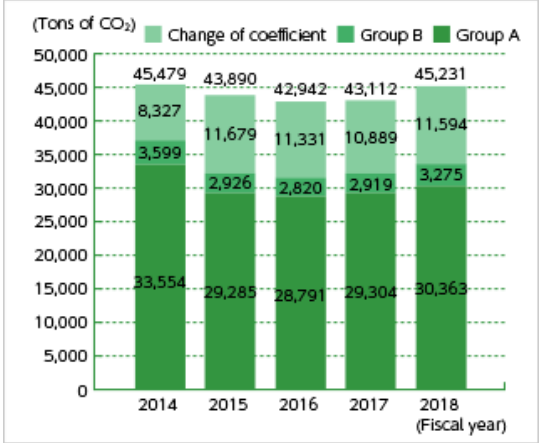
Global Warming Preventive Measures

CO2 Emission Transitions



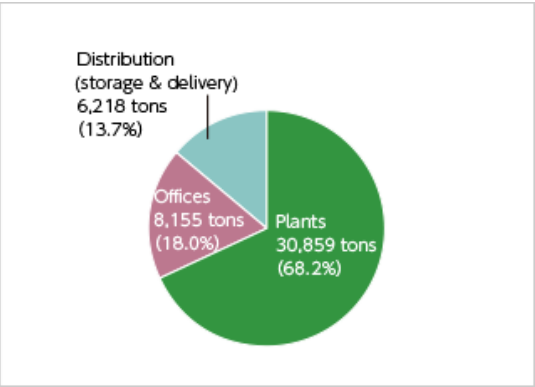
* The above figures are for Group A.

CO2 emission transitions

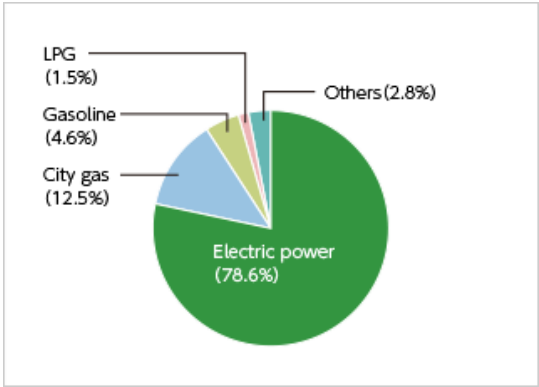


* The above figures are for Group B.

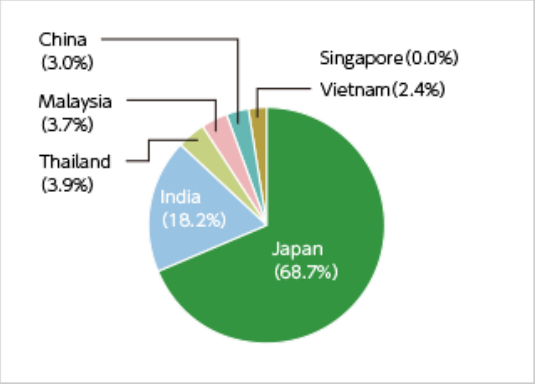
CO2 emission by source (Tons of CO2)



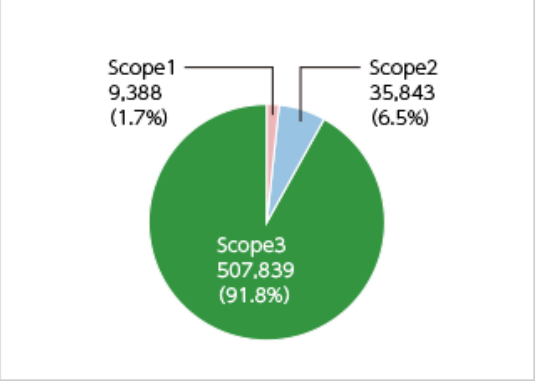
CO2 emission by source



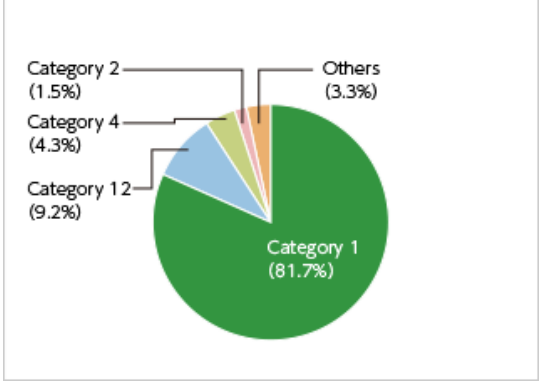
CO2 emissions by country



Greenhouse gases emitted by the supply chain (by scope) (Tons of CO2)



Greenhouse gases emitted by the supply chain (for Scope 3)



Scope 3 categories and emissions2

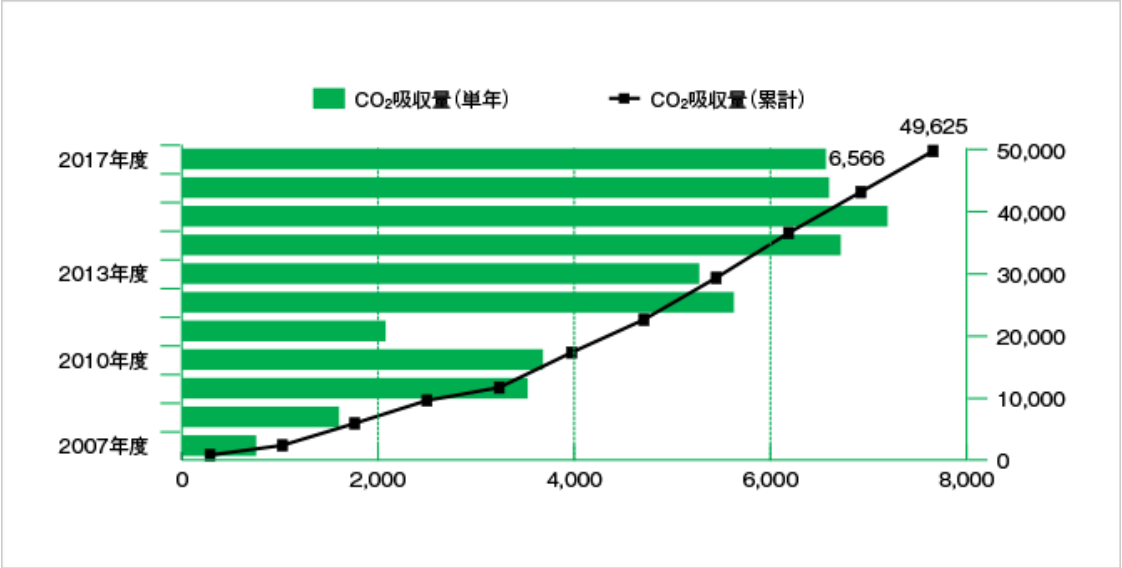
Unit: Tons of CO

Category		Applicable/ Not applicable	Reason for Non-applicability	Scope 3 Emissions	As Percentage of Total
Category 1	Purchased products / services	Applicable	-	414,728	81.7%
Category 2	Capital goods	Applicable	-	7,706	1.5%
Category 3	Fuel not included in Scope 1 or 2 and energy-related activities	Applicable	-	4,077	0.8%
Category 4	Shipping and delivery (upstream)	Applicable	-	21,663	4.3%
Category 5	Waste materials generated by businesses	Applicable	-	3,996	0.8%
Category 6	Business trips	Applicable	-	882	0.2%
Category 7	Commuting by workers	Applicable	-	2,351	0.5%
Category 8	Leased assets (upstream)	Not applicable	Included in Scope 1 / 2	-	0.0%
Category 9	Shipping and delivery (downstream)	Not applicable	Included in Category 4	-	0.0%
Category 10	Processing of sold products	Not applicable	KOKUYO is a manufacturer of completed products and does not deal with intermediate products	-	0.0%
Category 11	Use of sold products	Applicable	-	4,940	1.0%
Category 12	Discarding of sold products	Applicable	-	46,566	9.2%
Category 13	Leased assets (downstream)	Applicable	-	931	0.2%
Category 14	Franchises	Not applicable	No franchises	-	0.0%
Category 15	Investments	Not applicable	No investments	-	0.0%
Total	-	-	-	507,839	-

Amount of CO^2 absorbed by Yui no Mori

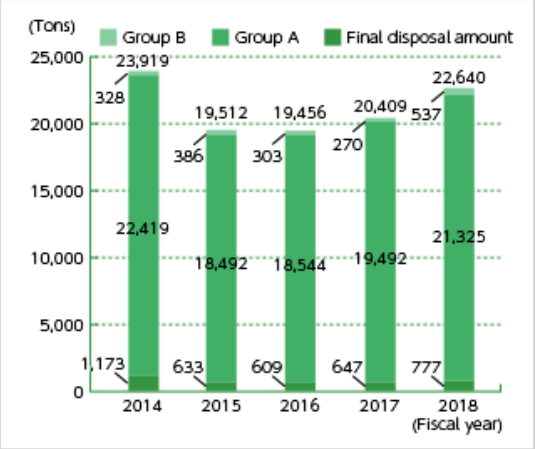
Amount of CO2 absorbed (cumulative total)

(Tons of CO2)



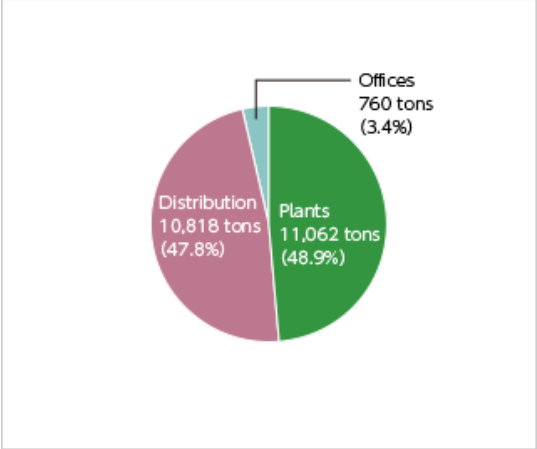
Resource Saving and Recycling

Waste Materials: Recycling and Final Disposal Amounts

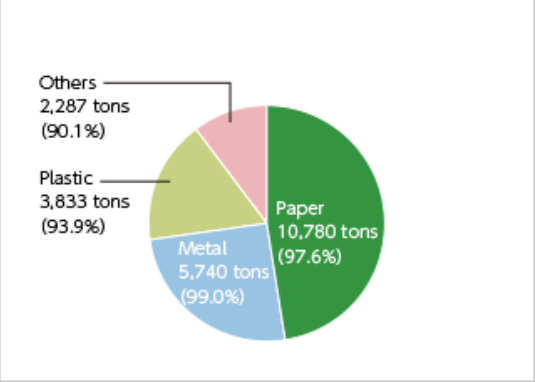


* From fiscal 2012, the scope of reporting coverage was expanded to Group B.

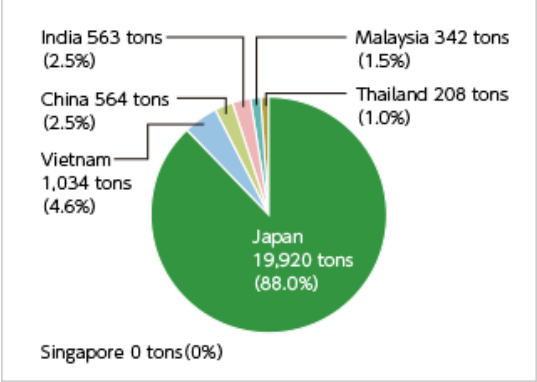
Waste Materials by Activity



Waste material types (Recycling rate in brackets)



Emissions by Country

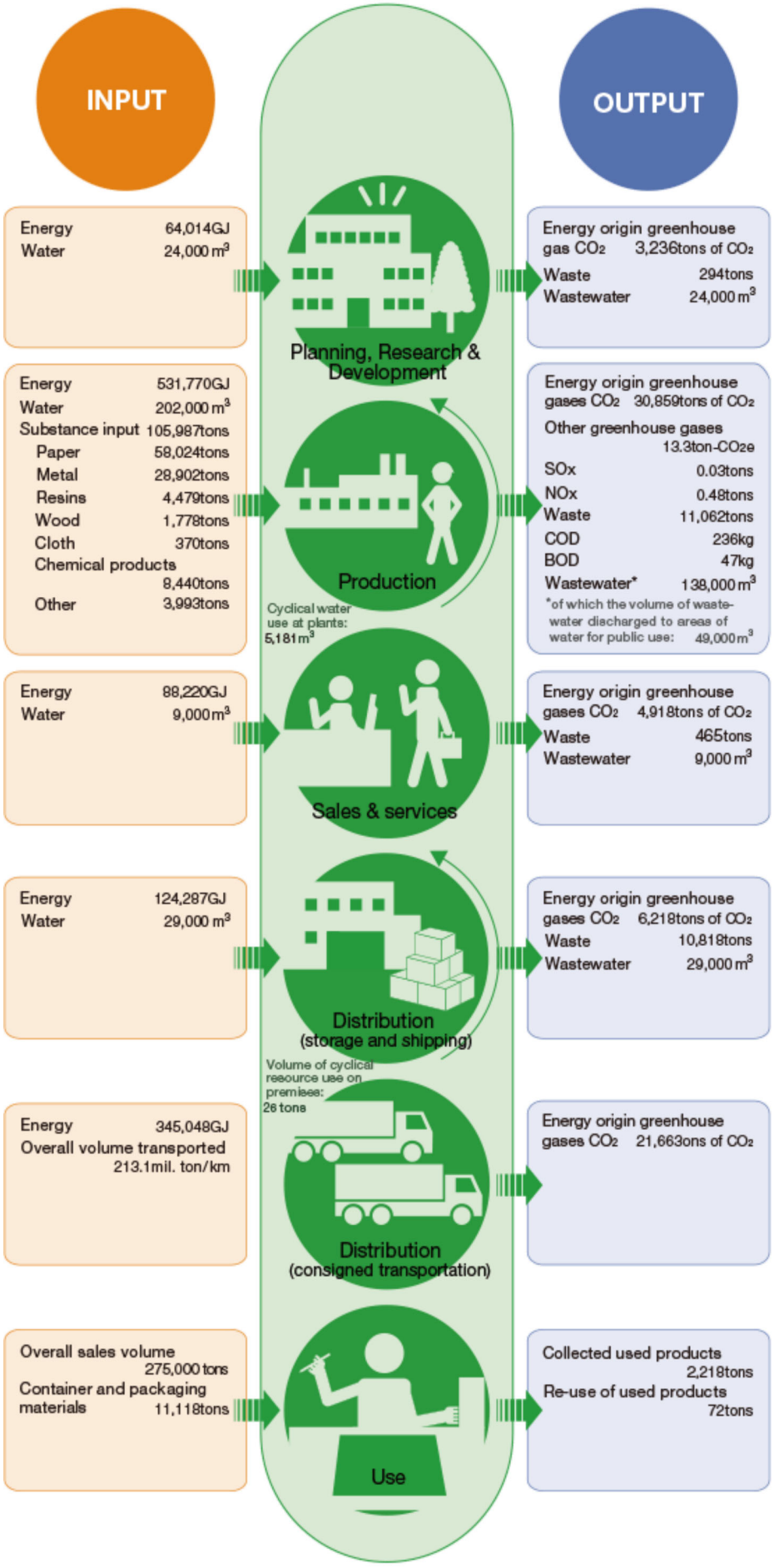


Chemical Substances Subject to PRTR Law

Official No.	Chemical name	Vol. handled (kg)	Vol. Released					Vol. Treated (kg)	Vol. Consumed (kg)
			Vol. Released into Air (kg)	Vol. Released into Public Bodies of Water (kg)	Vol. Released into Sewers (kg)	Vol. Sent to Landfill (kg)	Sub-total (kg)		
1	Zinc compounds (water-soluble)	179.2	0.0	0.0	0.0	0.0	0.0	179.2	0.0
20	2-aminoethanol	196.0	186.2	9.8	0.0	0.0	196.0	0.0	0.0
53	Ethylbenzene	9.6	9.6	0.0	0.0	0.0	9.6	0.0	0.0
57	Ethylene glycol monoethyl ether	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
71	Ferric chloride	19,648.0	0.0	0.0	0.0	0.0	0.0	19,648.0	0.0
80	Xylene	47.7	47.7	0.0	0.0	0.0	47.7	0.0	0.0
125	Chlorobenzene	13.5	8.1	0.0	0.4	0.4	8.8	0.0	4.6
134	Vinyl acetate	226.2	22.4	3.9	12.6	13.5	52.4	0.0	173.9
207	2,6-Di-tert-butyl-4-cresol	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
235	Water-soluble salts of bromic acid	951.4	0.0	0.0	0.0	0.0	0.0	951.4	0.0
296	1,2,4-trimethylbenzene	0.4	0.4	0.0	0.0	0.0	0.4	0.0	0.0
297	1,3,5-trimethylben	0.1	0.1	0.0	0.0	0.0	0.1	0.0	0.0
300	Toluene	327.6	13.8	7.5	1.1	8.3	30.7	187.2	109.7
302	Naphthalene	0.7	0.0	0.0	0.0	0.0	0.0	0.0	0.7
306	Hexamethylene diacrylate	198.0	0.0	0.0	0.0	0.0	0.0	0.0	198.0
309	Nickel compounds	280.0	0.0	0.0	0.0	196.0	196.0	0.0	84.0
354	Di-n-butyl phthalate	387.7	0.0	7.5	0.5	8.0	16.0	0.0	371.7
392	N-hexane	15.2	13.2	0.0	0.0	0.0	13.2	0.0	2.0
403	Benzophenone	14.7	0.0	0.0	0.0	0.4	0.4	0.0	14.3
407	Poly(oxyethylene)alkyl ether(alkyl C=12-15)	712.3	0.9	0.0	0.0	198.2	199.1	71.4	441.8
410	Poly(oxyethylene)nonylphenyl ether	17.4	0.0	0.0	0.0	0.4	0.4	0.0	17.0
412	Manganese and its compounds	19.0	19.0	0.0	0.0	0.0	19.0	0.0	0.0
448	Methylenebis(4,1-cyclohexylene)diisocyanate	474.1	0.0	0.0	0.0	0.0	0.0	0.0	474.1
453	Molybdenum and its compounds	987.6	0.0	0.0	0.0	1.2	1.2	0.0	986.4
Total		24,706.3	321.3	28.7	14.6	426.4	791.0	21,037.2	2,878.2

* The volume of PRTR Law Class I Designated Chemical Substances that were used, handled, released, transferred, disposed, recycled, and consumed by the business establishments (in Japan) subject to notification under the PRTR Law. For the calculation methods, see the Ministry of the Environment/Ministry of Economy, Trade and Industry's PRTR Release Estimation Methods Manual, version 4.1 (March 2011).
* "Volume treated" refers to those PRTR designated substances that were treated on site by incineration, neutralization, breaking down, reactive process, etc.
* "Volume consumed" refers to the volume of PRTR designated substances that were modified by way of reaction into other substances, incorporated into products or moved off-site with products.

Environmental Load Material Flow



* The above figures are for Group B.

Input items

Indicator	Unit	Calculation met
Volume of energy used	GJ	Power, gas (city gas, LPG, natural gas), oil (gasoline, light oil, kerosene, fuel oil A), heat (hot water, cold water) The power unit calorific values are the daytime and nighttime power values stated in the Enforcement Regulations of the Act on the Rational Use of Energy (effective from April 1, 2008). The unit calorific values of gas, oil, and heat are those values presented in the Greenhouse Gas Emission Calculation and Reporting Manual, Ver. 4.3.1 (July 2017) (Ministry of the Environment, Ministry of Economy, Trade and Industry).
Water	1,000 m^3	Tap water, water for industrial use
Substance Input	Tons	The volume of raw materials used to manufacture KOKUYO products
Overall Sales Volume	10,000 tons	Data from furniture and stationery products
Container and Packaging Materials	Tons	The volume of packaging materials used to package products

Output Items

Indicator	Unit	Calculation Method
CO_2 Emissions from Energy Use	Tons of CO_2	CO_2 emissions from the use of electricity, gas, oil, and heat. * See Global Warming Preventive Measures. Coefficients based on the Act on Promotion of Global Warming Countermeasures (actual emission coefficients for each power company for fiscal 2015 and 2016) were used to calculate the CO_2 emissions from power consumption in Japan. Coefficients for each country covered on the GHG Protocol website, released by the World Business Council For Sustainable Development (WBCSD) and the World Resources Institute (WRI), were used to calculate the CO_2 emissions from power consumption overseas. Values presented in the Greenhouse Gas Emission Calculation and Reporting Manual, Ver. 4.2 (April 2016) (Ministry of the Environment, Ministry of Economy, Trade and Industry) were used to calculate CO_2 emissions from the use of gas, oil, and heat. The ton/kilo method and the fuel consumption method were both used to calculate the distribution (consigned transportation) CO_2 emissions.
Other Greenhouse Gases	Tons of CO_2e	Emissions of greenhouse gases (CO_2, CH_4, N_2O) related to production activities, (in Japan), but excluding such emissions from energy sources, have been converted to a CO_2 basis. Emission coefficient values were taken from the Ministry of the Environment and the Ministry of Economy, Trade and Industry's Greenhouse Gas Emission Calculation and Reporting Manual, Ver. 4.3.1 (July 2017).
SO_x、NO_x	Tons	Emissions from smoke- and soot-producing facilities at manufacturing plants (in Japan)
Waste	Tons	The volume of discharged waste (emissions) is the total amount of waste and valuable substances discharged from business establishments. The recycle volume is the total of the volume of discharged waste (emissions) that has been recycled through material or thermal recycling, and the volume of valuable substances. The final waste volume is the combined total of the recycling residue and the volume of waste directly disposed of in landfills, out of the total volume of discharged waste (solid waste). * See Resource Saving and Recycling. If industrial waste has been calculated by cubic measurement, conversion factors (reference) for converting cubic measurements of industrial waste into weights as stated in a notice released by the Ministry of the Environment (December 27, 2006; Env. Ind. Waste Issue No. 061227006) were used.
Wastewater	1,000 m^3	Wastewater discharged to areas of water for public use and into the sewage system

Indicator	Unit	Calculation Method
COD、BOD	(kg)	Of plants in Japan, the volume of effluent discharged to areas of water for public use by plants with a legal obligation to measure water quality

Other items

Indicator	Unit	Calculation Method
Overall Transportation Volume	Tons/km	The total of the following outsourced transportation volumes: total domestic transportation in Japan including the transportation of furniture products, store fixtures, stationery products, transportation of catalog sales by Kaunet, and transportation of Actus products; and transportation of products between overseas sites and within Malaysia.
Cyclical Water Use at Plants	m^3	The volume of water used in a cyclical way (i.e. recycled) on business premises
Cyclical Resource Use on Sites	Tons	The volume of recycled resources, such as packaging materials, on the business premises of KOKUYO Logitem Co., Ltd. and KOKUYO Supply Logistics Co., Ltd.
Collected Used Products	Tons	The volume of used products collected from customers by KOKUYO Logitem Co., Ltd.
Re-use of Used Products	Tons	The volume of re-used products from the used products collected from customers by KOKUYO Logitem Co., Ltd.

Environmental Accounting

Environmental Accounting

(Unit: Ten thousand of yen)

Item	Environment-related Investments			Costs			Effects			Total		
	2016	2017	2018	2016	2017	2018	2016	2017	2018	2016	2017	2018
Pollution prevention	125	0	0	7,283	3,352	2,095	0	0	0	7,408	3,352	2,095
Global warming prevention	916	0	2,784	259	1,740	2,875	▲210	▲110	▲2,472	965	1,630	3,187
Resource saving and recycling	98	0	0	30,731	31,339	34,235	▲13,840	▲18,055	▲29,254	16,989	13,284	4,981
Procurement and provision of eco-friendly products	0	0	0	8,744	8,663	8,684	0	0	0	8,744	8,663	8,684
Survey and research into environmental technology	0	0	0	569	2,190	26	0	0	0	569	2,190	26
Environmental communication	0	0	0	1,893	1,445	1,793	0	0	0	1,893	1,445	1,793
Setting up management structures	0	0	0	3,699	3,605	4,904	0	0	0	3,699	3,605	4,904
Environmental damage response	0	0	0	43	0	0	0	0	0	43	0	
Total	1,139	0	2,784	53,221	52,334	54,613	▲14,050	▲18,165	▲31,726	40,309	34,169	25,672

* The above figures are for Group B.

Breakdown of economic effects

Item	Content of countermeasures	2016	2017	2018
Global warming prevention	Effects of introducing energy-saving facilities	▲71	▲110	▲1,344
	太陽光発電による効果			▲990
	Effects of improving operations	▲139		▲138
Procurement and provision of eco-friendly products	Cost reductions achieved through the use of recycled items	▲13,840	▲18,055	▲29,254
Total		▲14,050	▲18,165	▲31,726

Sites with ISO 14001 Certification

No.	Company Name	Site Name
1	KOKUYO	Head Office (including XT and WS)
2		Shinagawa Office
3		Shinagawa SST Office
4		Kasumigaseki Office
5		Osaki Office
6		Nagoya Office
7		Umeda Office
8		Mie Factory
9		Shibayama Factory
10	KOKUYO K Heart	Head Office
11	KOKUYO MVP	Tottori Factory
12		Aoya Factory
13	KOKUYO Product Shiga	Head Office
14	KOKUYO Logitem	Head Office
15		Sendai Distribution Center
16		Gunma Distribution Center
17		Central Japan Delivery and Distribution Center
18		Central Japan Delivery Center
19		Shin Chiba Distribution Center
20		Shiga Distribution Center
21		Mie Distribution Center
22		Ina Distribution Center
23		Chubu Delivery and Distribution Center
24		Toyama Distribution Center
25		Fujiwara Distribution Center
26		Komono Distribution Center
27		Kansai Delivery and Distribution Center
28		Okayama Distribution Center
29		Saga Office
30	KOKUYO Supply Logistics	Head Office
31		Ibaraki Distribution Center
32		Central Japan Integrated Distribution Center
33		Kyushu Integrated Distribution Center
34		Chubu Integrated Distribution Center
35		Shiga National Distribution Center
36		Kinki Integrated Distribution Center
37		Osaka Nanko Distribution Center

No.	Company Name	Site Name
38	Kaunet	Head Office
39		Sapporo Distribution Center
40		East Japan Distribution Center
41		Central Japan Distribution Center
42		West Japan Distribution Center
43		Fukuoka Distribution Center
44	KOKUYO Engineering &Technology	Head Office
45		North Japan Branch
46		Chubu Branch
47		Kansai Office
48		Hiroshima Office
49		Kyushu Branch
50	KOKUYO Marketing	Head Office
51		Tachikawa Office
52		Chiba Office
53		Saitama Office
54		Yokohama Office
55		Nagano Office
56		Matsumoto Office
57		Nagoya Office
58		Shizuoka Office
59		Umeda Office
60		Kyoto Office
61		Kobe Office
63		Wakayama Office
62		Hiroshima Office
64		Yamaguchi Office
65		Matsue Office
66		Fukuoka Office
67		Nagasaki Office
68		Miyazaki Office
69		Kumamoto Office
70		Kumamoto Office
71		Oita Office
72		Okinawa Office
73	KOKUYO (Malaysia)	Head Office
74	KOKUYO-IK Thailand	Head Office
75	KOKUYO Camlin	TARAPUR
76		JAMMU PLANT
77	KOKUYO Commerce (Shanghai)	Head Office
78		Shanghai Factory
79		Beijing Office
80		Shenzhen Office

Reports by Business Sites

KOKUYO measures the impact on the natural environment of the activities of its principal business sites in Japan and overseas and uses this information when considering appropriate policies, setting objectives, and carrying out other activities.

Reports on Business Sites in Japan

KOKUYO discloses such information on five manufacturing plants in Japan.

※ In the tables featured in this report, the figure "0" indicates that numbers have been rounded off to zero. Also, "-" indicates that there are no figures corresponding to the given item.
※ CO_2 emissions were calculated by applying the emission coefficient for each power company.
※ Wastewater emissions are disclosed herein only for those business sites where measurements of such emissions are required by law; however, since abnormal pH values were detected at the KOKUYO Product Shiga site in fiscal 2007, its emissions have been measured and disclosed voluntarily.

- KOKUYO(Mie Plant)
- KOKUYO (Shibayama Plant)
- KOKUYO Product Shiga
- KOKUYO MVP (Tottori Factory)
- KOKUYO MVP (Aoya Factory)
- IWAMI Paper Industry Co., Ltd. (Headquarters Factory)
- IWAMI Paper Industry Co., Ltd. (Ato Factory)

Reports on Business Sites Overseas

Information on 9 plants located in Thailand, Malaysia, Vietnam, China, and India (5 plants) are hereby disclosed. CO_2 emissions increased due to higher production at plants in Malaysia and India for fiscal 2016.

※ CO_2 emissions were calculated by applying the emission coefficient for each country.

- KOKUYO-IK (Thailand)
- KOKUYO (Malaysia)
- KOKUYO Vietnam
- KOKUYO COMMEREC (SHANGHAI) CO.,LTD Shanghai Factory
- KOKUYO Camlin (Tarapur Factory, India)
- KOKUYO Camlin (Taloja Factory, India)
- KOKUYO Camlin (Samba Factory, India)
- KOKUYO Camlin (Jammu Factory, India)
- KOKUYO Camlin (Patalganga Factory, India)

KOKUYO (Mie Plant)

Location	2012 Nishitawara, Nabari-shi, Mie
Principal products	Steel desks, low partitions, etc.
Commencement of operations	May 1993
Site area	145,977 m²

Inputs		2016	2017	2018
Energy (GJ)	Volume of energy inputs	94,093	99,464	113,465
	Fuel	35,306	36,972	44,272
	Electricity	58,787	62,493	69,193
Water resources (m³)	City/well water	36,802	37,345	44,200
Outputs		**2016**	**2017**	**2018**
Atmospheric emissions (t)	CO_2	4,650	5,051	5,953
	SO_x	0.02	0.01	0.03
	NO_x	0.28	0.15	0.48
Waste emissions (t)	Total waste volume	1,328	1,321	1,386
	Reuse/heat recovery	1,327	1,321	1,385
	Final disposal	1	1	1
Emissions into bodies of water (m³)	Volume of effluent	33,709	34,091	34,971
	Emissions into public water areas	33,709	34,091	34,971
	Emissions into sewage systems	-	-	-
Restricted items emitted into bodies of water	Hydrogen ion concentration (PH)	7.3～8.1	7.2～7.7	6.6～7.9
	COD（mg / L）	6.8	22	20
	BOD（mg / L）	2.1	9	2
	SS（mg / L）	4.3	7.0	10.0

KOKUYO (Shibayama Plant)

Location	3155-4 Ohdai, Shibayama-machi, Sanbu-gun, Chiba
Principal products	Room dividers, low partitions, cabinets, etc.
Commencement of operations	June 1994
Site area	73,734 m²

Inputs		2016	2017	2018
Energy (GJ)	Volume of energy inputs	120,595	123,128	120,215
	Fuel	59,229	63,116	61,358
	Electricity	61,366	60,011	58,857
Water resources (m³)	City/well water	16,282	15,746	15,011
Outputs		**2016**	**2017**	**2018**
Atmospheric emissions (t)	CO_2	6,087	6,135	5,920
	SO_x	-	-	-
	NO_x	-	-	-
Waste emissions (t)	Total waste volume	2,482	2,647	2,694
	Reuse/heat recovery	2,482	2,647	2,694
	Final disposal	0	0	0
Emissions into bodies of water (m³)	Volume of effluent	11,114	10,537	9,879
	Emissions into public water areas	3,357	5,093	4,285
	Emissions into sewage systems	7,757	5,444	5,594
Restricted items emitted into bodies of water	Hydrogen ion concentration (PH)	7.6	7.0	7.2/6.9
	COD（mg / L）	2.0	3.7	2.2
	BOD（mg / L）	1.5	1.0	2.0
	SS（mg / L）	2.6	10.9	2.6

KOKUYO Product Shiga

Location	312 Kamigano, Aisho-cho, Echi-gun, Shiga
Principal products	Notebooks, plain paper copy paper, carbon duplication books, loose-leaf supplies, etc.
Commencement of operations	October 1980
Site area	114,294 m²

Inputs		2016	2017	2018
Energy (GJ)	Volume of energy inputs	60,819	61,706	60,413
	Fuel	1,207	1,222	1,258
	Electricity	59,612	60,483	59,154
Water resources (m³)	City/well water	6,063	6,330	6,869
Outputs		**2016**	**2017**	**2018**
Atmospheric emissions (t)	CO_2	3,157	3,164	2,788
	SO_x	-	-	-
	NO_x	-	-	-
Waste emissions (t)	Total waste volume	2,415	2,536	2,549
	Reuse/heat recovery	2,415	2,536	2,549
	Final disposal	0	0	0
Emissions into bodies of water (m³)	Volume of effluent	6,031	6,267	6,819
	Emissions into public water areas	-	-	-
	Emissions into sewage systems	6,031	6,267	6,819
Restricted items emitted into bodies of water	Hydrogen ion concentration (PH)	6.7～9.3	6.6～9.0	7.0～8.2
	COD（mg / L）	2.7	3.3	8.2
	BOD（mg / L）	1.4	7.2	7.4
	SS（mg / L）	2.9	11	3.4

KOKUYO MVP (Tottori Factory)

Location	2-201 Minami, Koyama-cho,Tottori-shi, Tottori
Principal products	Custom-made stationery
Commencement of operations	September 2007 (Predecessor company, KOKUYO Office Supplies Industrial, began operations in December 1962)
Site area	38,389 m²

Inputs		2016	2017	2018
Energy (GJ)	Volume of energy inputs	15,401	17,530	16,949
	Fuel	679	1,243	958
	Electricity	14,722	16,287	15,991
Water resources (m³)	City/well water	8,997	7,113	8,331
Outputs		**2016**	**2017**	**2018**
Atmospheric emissions (t)	CO_2	1,079	1,216	1,150
	SO_x	-	-	-
	NO_x	-	-	-
Waste emissions (t)	Total waste volume	901	938	943
	Reuse/heat recovery	893	925	928
	Final disposal	8	13	15
Emissions into bodies of water (m³)	Volume of effluent	8,997	7,113	8,331
	Emissions into public water areas	-	-	-
	Emissions into sewage systems	8,997	7,113	8,331
Restricted items emitted into bodies of water	Hydrogen ion concentration (PH)	Not subject to regulation	Not subject to regulation	Not subject to regulation
	COD（mg / L）	Not subject to regulation	Not subject to regulation	Not subject to regulation
	BOD（mg / L）	Not subject to regulation	Not subject to regulation	Not subject to regulation
	SS（mg / L）	Not subject to regulation	Not subject to regulation	Not subject to regulation

KOKUYO MVP (Aoya Factory)

Location	1114 Aoya, Aoya-cho, Tottori-shi, Tottori
Principal products	Custom made stationery
Commencement of operations	September 2007 (Predecessor company, KOKUYO Office Supplies Industrial, Aoya Factory, began operations in April 2000)
Site area	34,607 m²

Inputs		2016	2017	2018
Energy (GJ)	Volume of energy inputs	14,117	13,938	14,324
	Fuel	557	858	1,694
	Electricity	13,560	13,081	12,630
Water resources (m³)	City/well water	4,122	4,282	4,696
Outputs		**2016**	**2017**	**2018**
Atmospheric emissions (t)	CO_2	985	960	957
	SO_x	-	-	-
	NO_x	-	-	-
Waste emissions (t)	Total waste volume	420	440	428
	Reuse/heat recovery	420	440	428
	Final disposal	0	0	0
Emissions into bodies of water (m³)	Volume of effluent	4,122	4,282	4,696
	Emissions into public water areas	4,122	4,282	4,696
	Emissions into sewage systems	-	-	-
Restricted items emitted into bodies of water	Hydrogen ion concentration (PH)	Not subject to regulation	Not subject to regulation	Not subject to regulation
	COD（mg / L）	Not subject to regulation	Not subject to regulation	Not subject to regulation
	BOD（mg / L）	Not subject to regulation	Not subject to regulation	Not subject to regulation
	SS（mg / L）	Not subject to regulation	Not subject to regulation	Not subject to regulation

IWAMI Paper Industry Co., Ltd. (Headquarters Factory)

Location	I-378 Ushiroda, Tsuwano-cho, Kanoashi-gun,Shimane
Principal products	Letter paper, receipt, vocabulary notebook, memo pad, etc.
Commencement of operations	October 1918
Site area	5,382m2

Inputs		2018
Energy (GJ)	Volume of energy inputs	3,096
	Fuel	489
	Electricity	2,607
Water resources (m^3)	City/well water	467
Outputs		**2018**
Atmospheric emissions (t)	CO_2	200
	SO_x	-
	NO_x	-
Waste emissions (t)	Total waste volume	58
	Reuse/heat recovery	58
	Final disposal	0
Emissions into bodies of water (m^3)	Volume of effluent	467
	Emissions into public water areas	-
	Emissions into sewage systems	467
Restricted items emitted into bodies of water	Hydrogen ion concentration (PH)	6.3～7.5
	COD（mg / L）	Not subject to regulation
	BOD（mg / L）	Not subject to regulation
	SS（mg / L）	Not subject to regulation

IWAMI Paper Industry Co., Ltd. (Ato Factory)

Location	586-3 Atotokusa, Yamaguchi-shi, Yamaguchi
Principal products	Resume form, manuscript paper, slip pad, report paper, etc
Commencement of operations	October 1918
Site area	28,297m2

Inputs		2018
Energy (GJ)	Volume of energy inputs	7,580
	Fuel	486
	Electricity	7,093
Water resources (m^3)	City/well water	845
Outputs		**2018**
Atmospheric emissions (t)	CO_2	361
	SO_x	-
	NO_x	-
Waste emissions (t)	Total waste volume	146
	Reuse/heat recovery	146
	Final disposal	0
Emissions into bodies of water (m^3)	Volume of effluent	845
	Emissions into public water areas	845
	Emissions into sewage systems	-
Restricted items emitted into bodies of water	Hydrogen ion concentration (PH)	7.2～7.6
	COD（mg / L）	Not subject to regulation
	BOD（mg / L）	Not subject to regulation
	SS（mg / L）	Not subject to regulation

KOKUYO-IK (Thailand)

Location	529 Moo 4 Bangpoo Industrial Estate Soi 8C, T. Praksa, A. Muang, Samutprakam 10280 Thailand
Principal products	Clear books (transparent document holders), PP (plain paper) files, tape adhesives, etc.
Commencement of operations	December 1996
Site area	12,679 m²

Inputs		2016	2017	2018
Energy (GJ)	Volume of energy inputs	32,017	35,765	35,574
	Fuel	612	594	529
	Electricity	31,406	35,171	35,044
Water resources (m³)	City/well water	17,628	18,411	16,857
Outputs		**2016**	**2017**	**2018**
Atmospheric emissions (t)	CO_2	1,615	1,803	1,792
	SO_x	-	-	-
	NO_x	-	-	-
Waste emissions (t)	Total waste volume	186	157	218
	Reuse/heat recovery	158	128	185
	Final disposal	28	30	33
Emissions into bodies of water (m³)	Volume of effluent	14,102	14,726	13,488
	Emissions into public water areas	-	-	-
	Emissions into sewage systems	14,102	14,726	13,488
Restricted items emitted into bodies of water	Hydrogen ion concentration (PH)	7.8	7.2	6.9
	COD（mg / L）	93.9	105.5	189
	BOD（mg / L）	16.7	22.1	59.5
	SS（mg / L）	51.8	40.5	48.5

KOKUYO (Malaysia)

Location	Lots 79 & 83, Persiaran Bunga Tanjung 1, Senawang Industrial Park 70400 Seremban, Negeri Sembilan Darul Khusus, Malaysia
Principal products	Steel desks, low partitions, cabinets, etc.
Commencement of operations	October 1999
Site area	58,000 m²

Inputs		2016	2017	2018
Energy (GJ)	Volume of energy inputs	23,750	25,300	25,531
	Fuel	6,190	7,948	8,186
	Electricity	17,560	17,352	17,345
Water resources (m³)	City/well water	12,857	12,852	14,067
Outputs		**2016**	**2017**	**2018**
Atmospheric emissions (t)	CO_2	1,513	1,591	1,604
	SO_x	-	-	-
	NO_x	-	-	-
Waste emissions (t)	Total waste volume	351	287	342
	Reuse/heat recovery	351	233	244
	Final disposal	0	54	97
Emissions into bodies of water (m³)	Volume of effluent	2,614	2,539	2,548
	Emissions into public water areas	1,184	1,173	1,061
	Emissions into sewage systems	1,429	1,366	1,487
Restricted items emitted into bodies of water	Hydrogen ion concentration (PH)	7.9	7.8	7.7
	COD（mg / L）	32.6	32.7	24.3
	BOD（mg / L）	13.6	8.7	7.6
	SS（mg / L）	5.2	8.9	8.6

KOKUYO Vietnam

Location	Land Plot B2-B7, Nomura-Haiphong IZ, An Duong Dist.,Haiphong City,Vietnam
Principal products	Notebooks, flat files, files for thick covers, tack labels, etc.
Commencement of operations	November 2006
Site area	51,544 m²

Inputs		2016	2017	2018
Energy (GJ)	Volume of energy inputs	33,347	33,452	31,292
	Fuel	531	581	574
	Electricity	32,816	32,872	30,718
Water resources (m³)	City/well water	8,514	9,699	10,339
Outputs		**2016**	**2017**	**2018**
Atmospheric emissions (t)	CO_2	1,187	1,192	1,116
	SO_x	-	-	-
	NO_x	-	-	-
Waste emissions (t)	Total waste volume	1,004	1,217	1,034
	Reuse/heat recovery	767	975	827
	Final disposal	237	242	206
Emissions into bodies of water (m³)	Volume of effluent	6,811	7,759	8,271
	Emissions into public water areas	-	-	-
	Emissions into sewage systems	6,811	7,759	8,271
Restricted items emitted into bodies of water	Hydrogen ion concentration (PH)	7.2	7.3	7.0
	COD（mg / L）	89.3	183.5	135.73
	BOD（mg / L）	40	121.5	68.2
	SS（mg / L）	Not subject to measurement	83	80.13

KOKUYO COMMEREC (SHANGHAI) CO.,LTD Shanghai Factory

Location	No.128 RenJie RD, FengXian District, Shanghai,P.R,China 201402
Principal products	Adhesive-bound notebooks, spiral notebooks, twin-ring notebooks, report pads, etc.
Commencement of operations	August 2012
Site area	27,457.7 m²

Inputs		2016	2017	2018
Energy (GJ)	Volume of energy inputs	11,017	11,049	10,677
	Fuel	812	554	523
	Electricity	10,205	10,494	10,153
Water resources (m³)	City/well water	1,930	1,457	2,742
Output		**2016**	**2017**	**2018**
Atmospheric emissions (t)	CO_2	806	810	0
	SO_x	-	-	-
	NO_x	-	-	-
Waste emissions (t)	Total waste volume	423	584	564
	Reuse/heat recovery	400	542	519
	Final disposal	24	42	45
Emissions into bodies of water (m³)	Volume of effluent	1,737	1,311	1,893
	Emissions into public water areas	-	-	-
	Emissions into sewage systems	1,737	1,311	1,893
Restricted items emitted into bodies of water	Hydrogen ion concentration (PH)	Not subject to measurement	Not subject to measurement	Not subject to measurement
	COD（mg / L）	Not subject to measurement	Not subject to measurement	Not subject to measurement
	BOD（mg / L）	Not subject to measurement	Not subject to measurement	Not subject to measurement
	SS（mg / L）	Not subject to measurement	Not subject to measurement	Not subject to measurement

KOKUYO Camlin (Tarapur Factory, India)

Location	MIDC Tarapur, Tal- Palghar, Dist- Thane, Pin- 401506
Principal products	Art supplies, poster colors, crayons, lead for mechanical pencils, etc.
Commencement of operations	April 1974
Site area	10,045 m²

Inputs		2016	2017	2018
Energy (GJ)	Volume of energy inputs	31,750	35,651	40,810
	Fuel	734	1,202	745
	Electricity	31,015	34,450	40,065
Water resources (m³)	City/well water	21,163	23,058	31,589
Outputs		**2016**	**2017**	**2018**
Atmospheric emissions (t)	CO_2	2,928	3,279	3,769
	SO_x	-	-	-
	NO_x	-	-	-
Waste emissions (t)	Total waste volume	100	87	104.4
	Reuse/heat recovery	99	84.5	104.4
	Final disposal	1.3	2.5	0
Emissions into bodies of water (m³)	Volume of effluent	21,163	9,620	31,589
	Emissions into public water areas	-	-	-
	Emissions into sewage systems	20,599	9,620	31,589
Restricted items emitted into bodies of water	Hydrogen ion concentration (PH)	6.4	6.6	8.2
	COD（mg / L）	97.0	87.0	12.0
	BOD（mg / L）	20.0	15.0	3.0
	SS（mg / L）	19.0	13.0	10.0

KOKUYO Camlin (Taloja Factory, India)

Location	M.I.D.C Taloja Navi Mumbai - 410 208
Principal products	Ink, stick glue, etc.
Commencement of operations	April 1996
Site area	3,801 m²

Inputs		2016	2017	2018
Energy (GJ)	Volume of energy inputs	3,415	2,580	3,085
	Fuel	225	120	1,289
	Electricity	3,189	2,460	1,796
Water resources (m³)	City/well water	8,580	9,376	7,628
Outputs		**2016**	**2017**	**2018**
Atmospheric emissions (t)	CO_2	312	237	255
	SO_x	-	-	-
	NO_x	-	-	-
Waste emissions (t)	Total waste volume	0.5	0	52.6
	Reuse/heat recovery	0	0	52.6
	Final disposal	0.5	0	0
Emissions into bodies of water (m³)	Volume of effluent	8,580	9,376	7,628
	Emissions into public water areas	-	-	-
	Emissions into sewage systems	8,580	9,376	7,628
Restricted items emitted into bodies of water	Hydrogen ion concentration (PH)	7.4	7.4	7.1
	COD（mg / L）	76.0	76.0	40.0
	BOD（mg / L）	25.0	25.0	14.0
	SS（mg / L）	13.0	13.0	5.0

KOKUYO Camlin (Samba Factory, India)

Location	Lane No. 9, Sidco, Phase - 1 I.G.C., Samba- 184 121
Principal products	Art supplies
Commencement of operations	January 2008
Site area	10,040 m²

Inputs		2016	2017	2018
Energy (GJ)	Volume of energy inputs	10,606	12,120	10,489
	Fuel	1,967	1,584	1,118
	Electricity	8,639	10,536	9,371
Water resources (m³)	City/well water	9,660	4,594	3,288
Outputs		**2016**	**2017**	**2018**
Atmospheric emissions (t)	CO_2	937	1,087	947
	SO_x	-	-	-
	NO_x	-	-	-
Waste emissions (t)	Total waste volume	66.1	94.4	111.1
	Reuse/heat recovery	64.2	94.4	104.6
	Final disposal	2	0	6.5
Emissions into bodies of water (m³)	Volume of effluent	9,660	4,594	3,288
	Emissions into public water areas	-	-	-
	Emissions into sewage systems	9,660	4,594	3,288
Restricted items emitted into bodies of water	Hydrogen ion concentration (PH)	7.3	7.3	7.4
	COD（mg / L）	102.0	113.0	144.0
	BOD（mg / L）	18.0	18.0	18.0
	SS（mg / L）	18.0	22.0	84.1

KOKUYO Camlin (Jammu Factory, India)

Location	101, Gangyal Industrial Area Phase II Jammu - 180 004
Principal products	Art supplies
Commencement of operations	April 2012
Site area	-

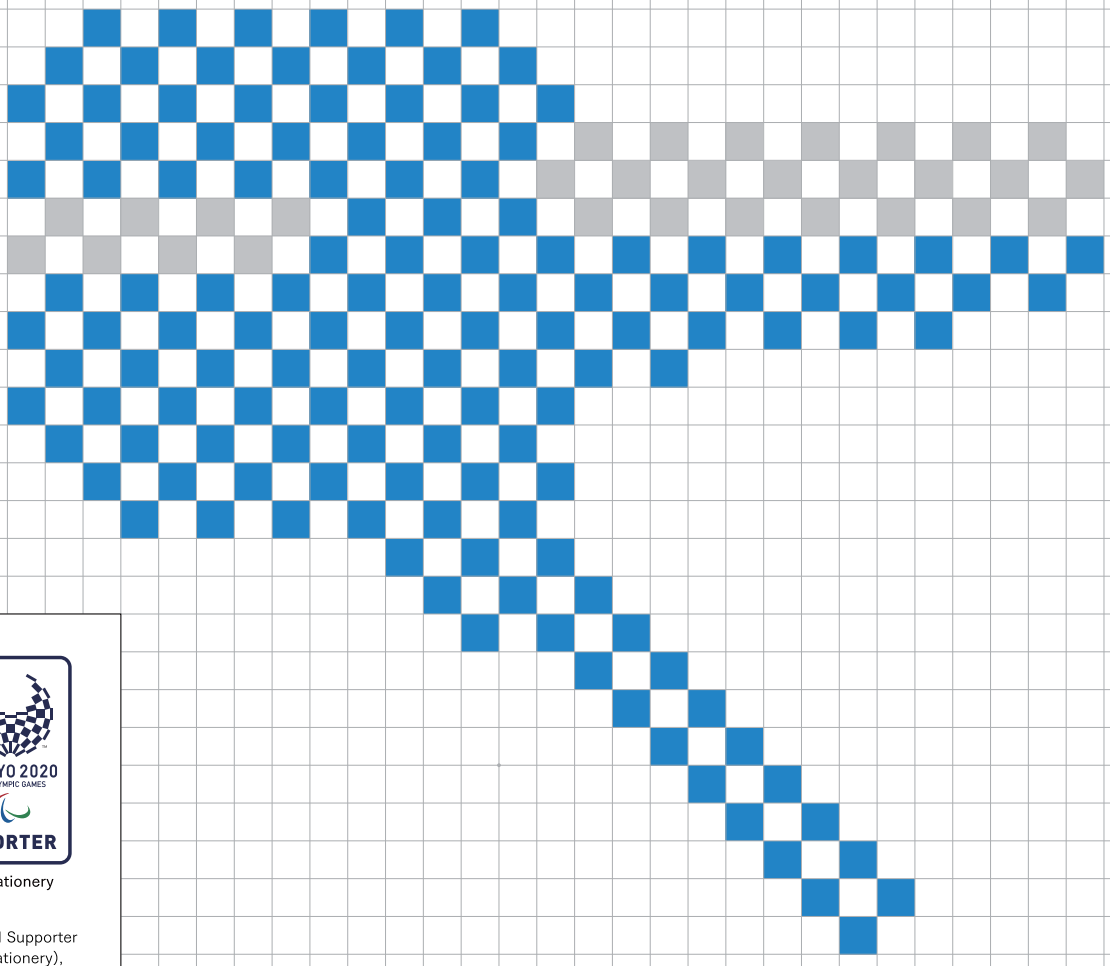
Inputs		2016	2017	2018
Energy (GJ)	Volume of energy inputs	1,903	6,264	5,212
	Fuel	315	187	187
	Electricity	1,588	6,077	5,026
Water resources (m^3)	City/well water	3,600	3,000	3,000
Outputs		**2016**	**2017**	**2018**
Atmospheric emissions (t)	CO_2	169	577	480
	SO_x	-	-	-
	NO_x	-	-	-
Waste emissions (t)	Total waste volume	13.8	13.3	17.3
	Reuse/heat recovery	13.8	13.3	17.3
	Final disposal	0	0	0
Emissions into bodies of water (m^3)	Volume of effluent	3,600	3,000	3,000
	Emissions into public water areas	3,600	3,000	3,000
	Emissions into sewage systems	-	-	-
Restricted items emitted into bodies of water	Hydrogen ion concentration (PH)	Not subject to regulation	Not subject to regulation	Not subject to regulation
	COD（mg / L）	Not subject to regulation	Not subject to regulation	Not subject to regulation
	BOD（mg / L）	Not subject to regulation	Not subject to regulation	Not subject to regulation
	SS（mg / L）	Not subject to regulation	Not subject to regulation	Not subject to regulation

KOKUYO Camlin (Patalganga Factory, India)

Location	MIDC,Village-Chavane,Taluka-Panvel,Dist-Raigad-410 220,Maharashtra ,India
Principal products	Writing instrument（Marker, pencil pen, correction pen, Gel pen, sketch pen）Ink, crayon
Commencement of operations	April 2017
Site area	10,040 m²

Inputs		2018
Energy (GJ)	Volume of energy inputs	26,630
	Fuel	2,084
	Electricity	24,546
Water resources (m³)	City/well water	27,963
Outputs		**2018**
Atmospheric emissions (t)	CO_2	2,422
	SO_x	-
	NO_x	-
Waste emissions (t)	Total waste volume	277.7
	Reuse/heat recovery	277.7
	Final disposal	0
Emissions into bodies of water (m³)	Volume of effluent	0
	Emissions into public water areas	-
	Emissions into sewage systems	-
Restricted items emitted into bodies of water	Hydrogen ion concentration (PH)	6.3～7.5
	COD（mg / L）	8.0
	BOD（mg / L）	3.0
	SS（mg / L）	22.0

Date



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