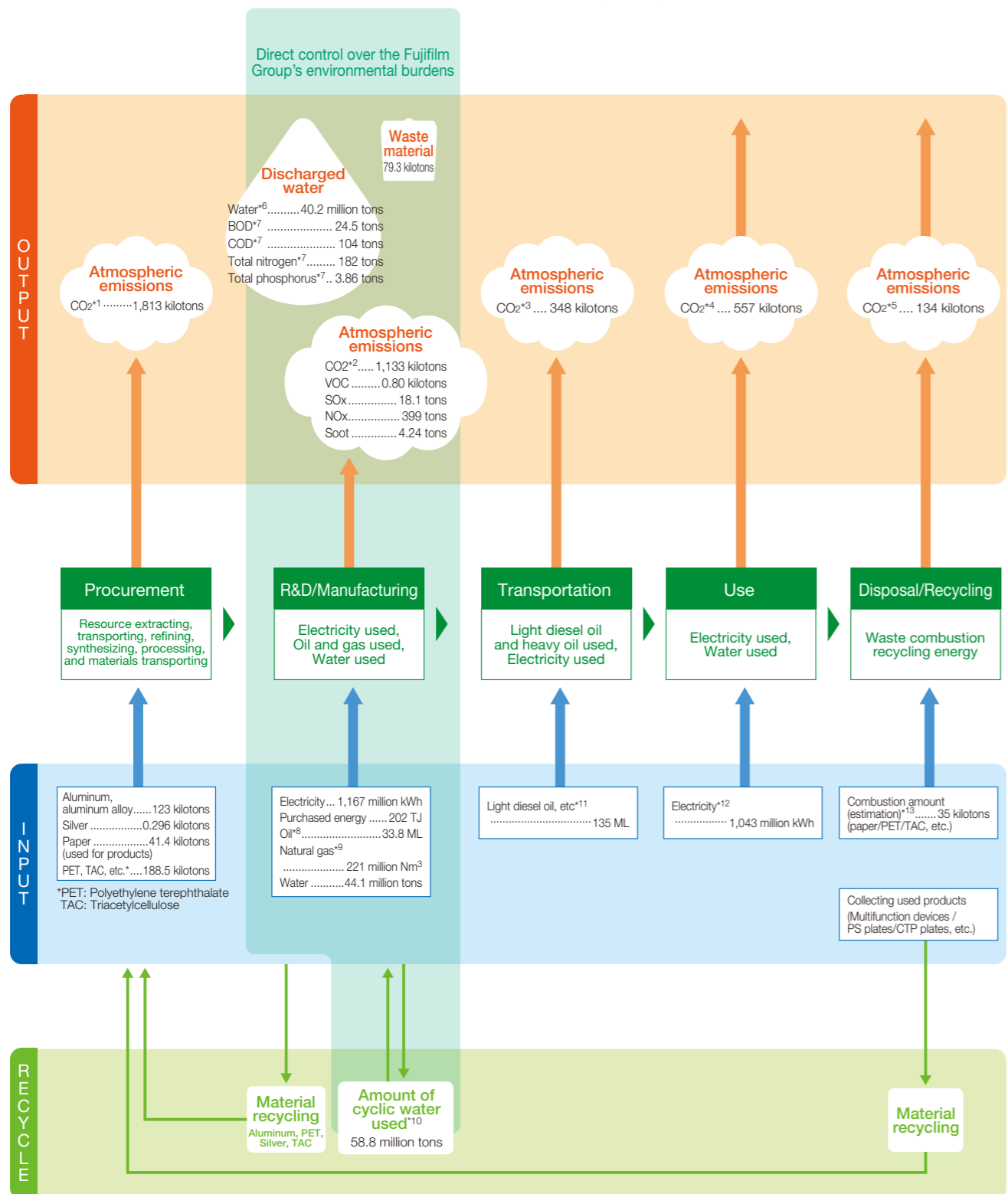


# Environmental Aspects

## Material flow



\*1 Environmental burdens due to raw materials procurement (CO<sub>2</sub> emitted during the process of extracting, transporting, refining, synthesizing, processing, and transporting raw materials) is calculated for the main raw materials procured.  
\*2 Environmental burdens due to product manufacture is calculated based on the total amount of energy (electricity, petroleum, and gas) consumed in the production process.  
\*3 For the calculation of environmental burdens due to product transportation, estimates are made based on domestic and overseas transportation methods and distances traveled. The typical amount of CO<sub>2</sub> emissions per unit of weight and distance for each method and correction factors such as the yield rate are multiplied by the weight of the raw materials procured.

\*4 For copy machines, printers, and fax machines, environmental burdens due to use of products is calculated as energy consumption for a 5-year period for the machines installed this year. For other products, the estimated number of machines in operation is multiplied by typical energy consumption.  
\*5 Environmental burdens due to product disposal is calculated based on the estimation of stress on the environment caused by the disposal of the raw materials procured.  
\*6 Wastewater released as a result of business activities  
\*7 Volume released to public water  
\*8 Total of heavy oil A, heavy oil C, kerosene, light diesel oil, and gasoline (Amounts of the petroleum-based products are summed after appropriated energy conversions, and the total is expressed in terms of the amount of heavy oil A.)

\*9 Total of natural gas, liquefied natural gas (LNG), urban gas, butane, and liquefied petroleum gas (LPG) (Amounts of the gases are summed after appropriate energy conversions, and the total is expressed in terms of the amount of urban gas.)  
\*10 This includes the amount of water used in a cyclic manner.  
\*11 Calculation assuming transport by truck  
\*12 Based on the average CO<sub>2</sub> emission coefficient of the Federation of Electric Power Companies of Japan (LPG)  
\*13 Hypothetical combustion rate for each substance used  
(For the above, data from the input-output table and other sources are used to obtain CO<sub>2</sub> emissions per unit of output.)

\*Organizations covered in the environmental performance data are, as a general rule, those that are shown in the consolidated financial statements, and are significant in terms of environmental burden. However, certain sales and manufacturing (assembly) subsidiaries are excluded. Those not shown specifically are included in the tabulation figures above. Moreover, figures for the Group total may not reflect the sum of each subtotal.

## Measures for Climate Change

**CO<sub>2</sub> emissions\*** (kt-CO<sub>2</sub>/year)

	FY2005	FY2013	FY2014	FY2015	FY2016	FY2017
<b>R&amp;D/Manufacturing/Office</b>						
Japan / Manufacturing	1,102	912	896	869	829	787
Japan / Non-manufacturing	28	30	27	30	33	33
Overseas / Manufacturing	345	350	344	306	274	283
Overseas / Non-manufacturing	30	42	40	37	51	43
<b>Group total</b>	<b>1,505</b>	<b>1,335</b>	<b>1,307</b>	<b>1,242</b>	<b>1,188</b>	<b>1,146</b>
Vehicle	35	30	33	31	23	29
<b>Total</b>	<b>1,540</b>	<b>1,365</b>	<b>1,340</b>	<b>1,273</b>	<b>1,211</b>	<b>1,175</b>

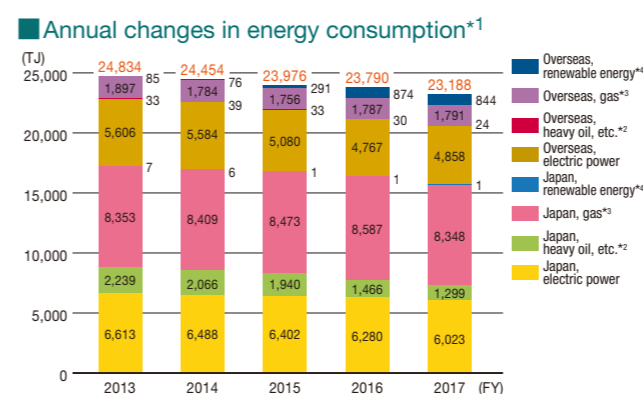
\*Calculation method: Calculation of CO<sub>2</sub> emission by energy usage specified in the Act on the Rational Use of Energy. Emission coefficient by electric power utility used for purchased power.

**2017 CO<sub>2</sub> emission by region\* (R&D/Manufacturing/Office)** (kt-CO<sub>2</sub>/year)

	CO <sub>2</sub> emission
<b>Japan</b>	<b>820</b>
Americas (USA, Canada & Brazil)	152
Europe (Netherlands, Germany, Belgium, UK & France)	57
<b>Overseas</b>	<b>81</b>
China	37
Asia excl. China & Oceania (Australia, South Korea, Singapore, etc.)	37
<b>Group total</b>	<b>1,146</b>

\*Calculation method: Calculation of CO<sub>2</sub> emission by energy usage specified in the Act on the Rational Use of Energy. Emission coefficient by electric power utility used for purchased power in Japan, and emission coefficient released by IEA for each country used for other countries.

## Energy-Saving Measures



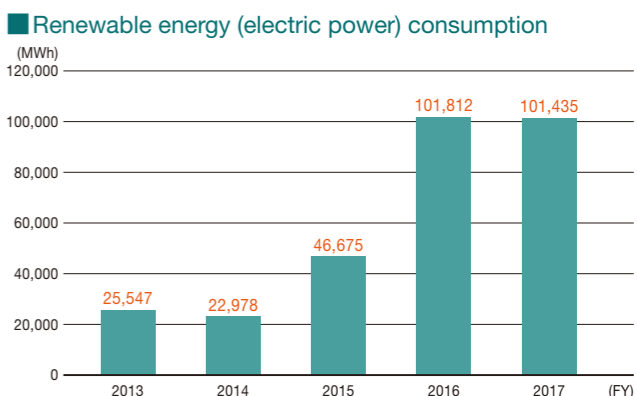
\*1 Per unit calorific value is based on the Energy Conservation Act.  
\*2 Total of heavy oil A, heavy oil C, kerosene, light oil and gasoline  
\*3 Total of natural gas, liquefied natural gas (LNG), city gas, butane and liquefied petroleum gas (LPG)  
\*4 FUJIFILM Manufacturing Europe B.V. (EF) classified as renewable energy because the supply of wind-generated power has been 100% since FY2015.

## Breakdown of consumption of heavy oil, etc. (FY2017)\* (thousand kiloliters)

	Heavy oil	Kerosene	Light oil	Gasoline
Japan	30.9	1.1	0.1	0.0
Overseas	0.0	0.0	0.6	0.1
<b>Group total</b>	<b>30.9</b>	<b>1.1</b>	<b>0.7</b>	<b>0.1</b>

\*Consumption in manufacturing only

## Use of Renewable Energy



## Environment Conscious in Logistics

**Annual changes in total CO<sub>2</sub> emissions in domestic logistics\*** (tons of CO<sub>2</sub>/year)

	FY2013	FY2014	FY2015	FY2016	FY2017
<b>Total CO<sub>2</sub> emissions</b>	<b>47,075</b>	<b>45,633</b>	<b>50,229</b>	<b>49,761</b>	<b>47,100</b>

\*Total CO<sub>2</sub> emissions are calculated as the amount of CO<sub>2</sub> emitted by FUJIFILM Logistics Co., Ltd. in its logistics activities for the Fujifilm Group companies. Since FY2006, we shifted calculation method to the method based on revised Energy Conservation Law (travel distance of empty cars not included in calculations, etc.).

## Annual changes in amount of CO<sub>2</sub> reductions and reduction rates through transportation efficiency improvements\* (Domestic distribution)

	FY2013	FY2014	FY2015	FY2016	FY2017
<b>Amount of CO<sub>2</sub> reductions (tons of CO<sub>2</sub>/year)</b>	<b>6,354</b>	<b>11,404</b>	<b>12,692</b>	<b>15,790</b>	<b>13,156</b>
<b>CO<sub>2</sub> reduction rate (%)</b>	<b>11.9</b>	<b>20.0</b>	<b>20.2</b>	<b>25.4</b>	<b>21.8</b>

$$\text{CO}_2 \text{ reduction rate (\%)} = \frac{\text{Amount of CO}_2 \text{ reductions}}{\text{Total CO}_2 \text{ emissions} + \text{CO}_2 \text{ reductions}}$$

\*In the FY2017, we enforced our activities for CO<sub>2</sub> reductions in collaboration with a specified consigner. Major reduction initiatives, which proved effective, include starting modal shifts (road transport to sea transport) in FY2017, as well as improving carrying efficiency by double stacking during transport and enhancing gasoline mileage by eco-driving. The amount was a total figure of each facility's CO<sub>2</sub> reduction measure.

## Annual changes in domestic transport volume\* (million tons/kilometer)

	FY2013	FY2014	FY2015	FY2016	FY2017
<b>Transportation volume</b>	<b>186</b>	<b>181</b>	<b>190</b>	<b>190</b>	<b>168</b>

\*Range of transportation volume is calculated within the range of ownership in compliance with reporting under the Act on the Rational Use of Energy.

## Annual changes in reduction in export packaging material weight\* (Cumulative total) (%)

	FY2013	FY2014	FY2015	FY2016	FY2017
<b>Packaging material reduction rate</b>	<b>15.5</b>	<b>9.3</b>	<b>10.5</b>	<b>12.7</b>	<b>17.5</b>

$$\text{Packaging material reduction rate (\%)} = \frac{\text{Weight reduced}}{\text{Total material weight} + \text{weight reduced}}$$

\*Total weight of export packaging materials handled by FUJIFILM Logistics in FY2017 was 1,230,052 tons. Weight was reduced by 261,049 tons, with yearly reduction rate of 17.5%.

## Annual changes in container and packaging material\* used (Fujifilm non-consolidated) (thousand tons/year)

	FY2013	FY2014	FY2015	FY2016	FY2017
<b>Total consumption</b>	<b>16.3</b>	<b>15.5</b>	<b>15.2</b>	<b>15.6</b>	<b>14.9</b>

\*Total of corrugated paper boxes, paper materials, paper containers, metal materials, plastic molds, plastic film/sheet and glass used.