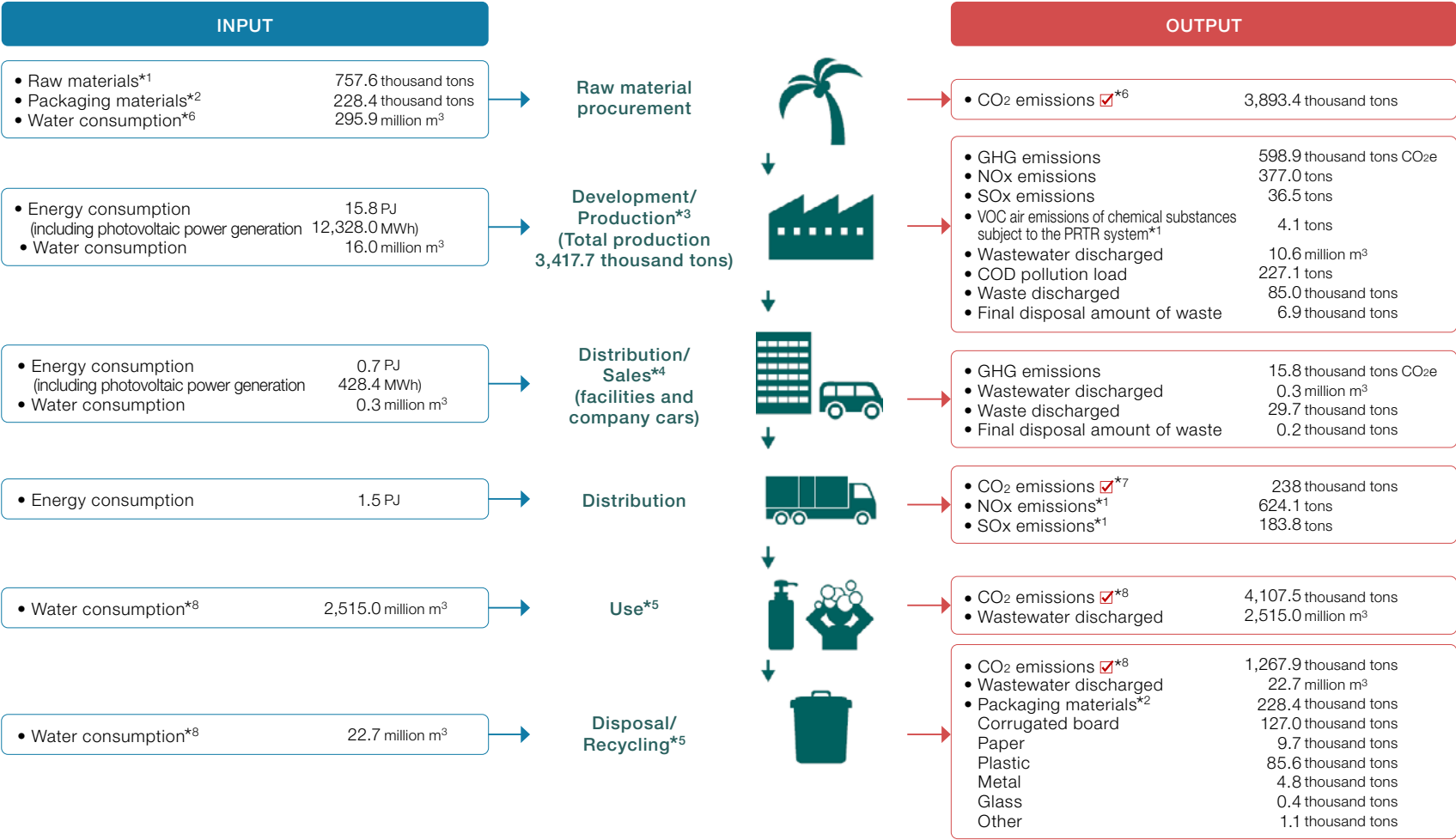


# Product Lifecycle and Environmental Impact

GRI 301-1, 302-1, 303-3, 303-4, 303-5, 305-1, 305-2, 305-3, 305-7

Kao is pursuing efficient resource utilization across the product lifecycle, as well as technologies to achieve further savings of natural resources and energy conservation.

## 2024 business operations and environmental impact



Scope of calculations

\*1 Kao Group in Japan

\*2 For consumer products excluding cosmetics and human health care. Calculated by multiplying the amount of packaging used per product by annual sales in FY2024

\*3 All production sites

\*4 All non-production sites (including Training Centers, company dormitories, etc.)

\*5 Consumer products

\*6 Calculated by multiplying the per-unit CO<sub>2</sub> emissions and water usage in the raw materials production stage (excluding Kao Group manufacturing processes) by the annual sales number of consumer and industrial products in FY2024

\*7 The scope is consumer products and industrial products. Figures for Japan are calculated based on the Energy Conservation Act. Figures for outside Japan are calculated multiplying the per-unit CO<sub>2</sub> emissions during transport (calculated based on figures for Japan) by the quantity sold in each country and the estimated domestic transport distance in each country.

\*8 Calculated by multiplying the per-unit CO<sub>2</sub> emissions and water usage during use or per-unit CO<sub>2</sub> emissions and water usage during disposal by the annual sales number of consumer products

Decarbonization  
Zero Waste  
Water Conservation  
Air & Water Pollution Prevention  
> Product Lifecycle and Environmental Impact  
Environmental Accounting

Walking the Right Path

INPUT

- **Raw materials**  
The amount of raw materials directly used to manufacture products (excluding packaging materials and fuel)
- **Packaging materials**  
Total amount of packaging materials (including cardboard) used for products sold
- **Energy consumption [product development/production]**  
Total amount of energy consumed at production sites (Scope of solar photovoltaic power generation is limited to onsite power generation)
- **Energy consumption [distribution/sales (facilities and company cars)]**  
The amount of energy consumed at nonproduction sites and by vehicles (used for sales activities) (Scope of solar photovoltaic power generation is limited to on-site power generation)
- **Energy consumption [transportation]**  
The amount of energy consumed during transportation of consumer products (from plants to distribution bases), industrial products, raw materials, etc.
- **Water consumption**  
Industrial water, municipal water, groundwater, rainwater used

OUTPUT

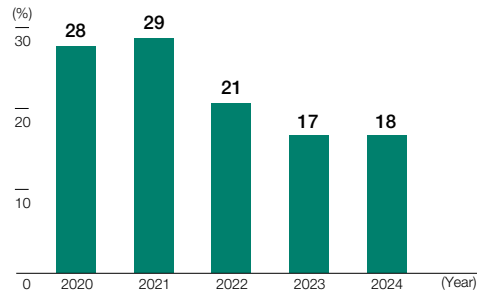
- **GHG emissions**  
Total amount of greenhouse gas emissions from sites (seven GHGs defined in the Kyoto Protocol) (in CO<sub>2</sub> equivalent, Scope 1+2)
- **CO<sub>2</sub> emissions**  
The amount of CO<sub>2</sub> emitted from manufacturing raw materials, consuming energy and decomposition of ingredients
- **NO<sub>x</sub> emissions**  
Total amount of NO<sub>x</sub> emissions from smoke- and soot-emitting facilities and transportation
- **SO<sub>x</sub> emissions**  
Total amount of SO<sub>x</sub> emissions from smoke- and soot-emitting facilities and transportation
- **VOC emissions**  
Total amount of volatile organic compounds (VOCs) emitted into the atmosphere from production sites
- **Wastewater discharged**  
The amount of wastewater discharged at production sites and consumer product use stages
- **COD pollution load**  
The amount of COD pollution load in wastewater
- **Waste discharged and final disposal amount of waste**  
Of the waste generated from sites, the amount that is sold or consigned as waste or recyclable materials to waste treatment companies, and the amount of waste to landfill
- **Packaging materials**  
Total amount of packaging materials (including cardboard) used for products sold

“Eco together” logo certified products

We carry out certification that allows products with lower environmental impact that have passed our rigorous original certification standards to display the “eco together” logo.

In 2024, the sales ratio of products (consumer products in Japan) displaying the “eco together” logo was 18%, which represented an increase compared to the previous year.

Percentage of total sales held by “eco together” logo certified products (consumer products in Japan)



- “Eco together” logo certification criteria  
<https://www.kao.com/global/en/sustainability/klp/policy/eco-products-policy/>
- List of “eco together” logo-certified products  
<https://www.kao.com/jp/sustainability/klp/policy/eco-products-policy/eco-together-products/>

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