Decarbonization

GRI 201-2

Kao has set the ambitious targets of achieving carbon zero by 2040 and carbon negative by 2050 and is working to fulfill its responsibility to pass on a sustainable future to the next generation by developing innovative technologies and reducing CO_2 emissions throughout the value chain in collaboration with stakeholders.

Risks

- Increased costs due to compliance with regulations such as a carbon tax
- Increased costs due to restrictions on the use of plastics
- Increased costs due to rising energy prices
- Increased costs due to rising palm oil prices
- Increased damage from flooding
- Deteriorated reputation and higher litigation and liability risks due to an insufficient response to climate change

Opportunities

- Cost reduction through more efficient use of resources
- Increased sales of products addressing climate change
- Increased corporate value through activities that solve social issues and improve the lives of consumers

Strategy

Overall	(1) Promote innovative initiatives toward carbon zero by 2040 and carbon negative by 2050
Overall	(2) Decarbonize raw materials and disposal processes
Sites	(3) Decarbonize manufacturing and logistics processes (improve energy efficiency)
Products	(4) Reduce carbon emissions due to use (enhance the lineup of water-saving and energy-efficient products
Products	(5) Provide products and services that contribute to reducing CO_2 emissions in society
Products	(5)Strengthen resilience through climate adaptation-oriented products and technologies

Metrics, targets and results

Metrics	Targets	2025 results
% reduction in absolute lifecycle CO_2 emissions* (Base year: 2017) (2) * Total of Scope 1, Scope 2, and Categories 1, 4, 11, and 12 of Scope 3	22% in 2030	17%
Avoided emissions from products and services (2) (4) (5) (6)	10,000 thousand tons	4,485 thousand tons
% reduction in absolute scope 1 + 2 CO_2 emissions (Base year: 2017) (1) (3)	55% in 2030	47%
% of renewable energy in electricity consumption (3)	100% in 2030	78%

Initiatives

Strengthen collaboration with suppliers Companies with high activity levels: 49%*
* Of the 1-5+ categories, the percentage of companies in the 5 and 5+ categories

Scope 1+2 emissions
561 thousand tons-CO_2

Promotion of electricity procurement from renewable energy sources
Purchase 92%, use 78%

Introduction of high-efficiency equipment, energy-saving manufacturing processes

Scope 3 emissions
10,287 thousand tons-CO_2

Avoided emissions in Global consumer care products: 1,893 thousand tons-CO_2

Avoided emissions in Chemical Business
2,592 thousand tons-CO_2

Financial impact

- Increased sales of water-saving products: 10.6%
- Increased sales of products for the Chemical Business that contribute to CO_2 reduction (avoided emissions)
- Cost reduction through energy saving: 180 million yen
- Increased sales of products for adapting to climate change
- Investment and costs for eco-conscious R&D: 9,069 million yen
- Economic value of Scope 1 emissions reduced, calculated using ICP: approximately 140 million yen

Environmental and social impact

- Avoided emissions in Global consumer care products: 1,893 thousand tons-CO_2
- Avoided emissions in Chemical Business: 2,592 thousand tons-CO_2
- CO_2 reduction in the use stage: 1.3%
- Net CO_2 reduction through TCR: 5,649 t-CO_2 (Only Scope 1 reduction related to plants)

* The numbers at the end of the metrics, targets, and initiatives indicate the strategy identifiers.

Strategy

To reduce risks and create opportunities for decarbonization, we are implementing strategies that are characteristic of Kao, effective, and contribute to business growth and the resolution of social issues.

Social issues

For Kao to remain a sustainable and competitive entity, it is essential to have an accurate understanding of social issues. An understanding of social issues will not only mitigate business risks for Kao but will also be an important starting point for identifying new business opportunities that will drive growth. Kao recognizes the following social issues related to this theme.

- Deterioration of the hygiene environment due to climate change
- Loss of biodiversity due to climate change
- Resource depletion and energy problems due to dependence on fossil fuels

Risks and opportunities

If climate change results in an average temperature increase of 4°C, the consequences for society are expected to be significant. Therefore, Kao recognizes the importance of making meaningful contributions to limit the rise to 1.5°C and assesses financial impacts under both the 1.5°C and 4°C scenarios.

The financial impacts are calculated as the expected loss under the assumption that no actions, such as passing on costs to customers, are taken. The financial impacts of transition risks in 2050 are projected to be up to 79.1 billion yen from higher palm oil prices, up to 25.4 billion yen from carbon taxes, and up to 7.9 billion yen related to plastic packaging container regulations if no actions are taken. In both scenarios, palm oil procurement risks include higher costs due to supply shortages relative to demand. In response to this risk, Kao is taking a multilayered approach to reduce structural dependency and create business opportunities as part of its response. One example is developing raw materials for high-performance surfactant, such as Bio IOS, to maximize the effective use of palm oil, a finite resource.

For the palm oil it procures, Kao promotes sustainable sourcing to reduce greenhouse gas emissions while continuing to enhance traceability to the plantation level and strengthen supply chain management. In addition, Kao is advancing research and development on alternative feedstocks derived from algae-derived oils, unused biomass, and CO_2.

We believe that by staying ahead of competitors through strategic, innovation-driven differentiation, we can not only reduce risks but also create new business opportunities.

The financial impact of physical risks is projected to range from 0.4 to 4.6 billion yen due to flooding and other factors. Meanwhile, opportunities to contribute to mitigation include increased demand for water- and energy-saving products and products that reduce plastic waste in the Global Consumer Products Care business, and for products that help customers reduce climate change risks in the Chemical Business.

Opportunities for adaptation include increased demand for UV care, self-tanning, and other skin protection products that address global warming, as well as for products that reduce the risk of infectious diseases, such as disinfectants, detergents, and repellents. We will mitigate risks associated with climate change while also creating business opportunities by promoting product development in line with the Kao Sustainable Product Development Policy.

Major business risks and opportunities

			Evaluation items	Evaluated financial impact	Financial Impact in 2050 (Unit: billion yen) * Amount of loss if no action is taken,such as price pass-on		Kao's response status
					1.5°C scenario	4°C scenario	
Risks	Transition	Policy and Legal	Introduction and/or raising of carbon tax	Higher operating costs due to the introduction and increase of carbon tax	-25.4	-9.3	• Set 2030 Scope 1+2 emissions reduction target and promote systematic capital investment
			Introduction of restrictions on plastics	Taxation of fossilderived packaging materials	-7.9	–	• Reduce innovation: Reduce plastic usage through innovative packaging • Reduce product waste: Enhance e-commerce, inventory refinement through AI forecasting • Recycling innovation: Develop Film-to-Film recycling technology that achieves both quality and cost, and establish a recycling system with stakeholders.
				Cost increases due to mandatory use of recycled plastic	-4.6	–	
		Markets	Energy price increase	Fluctuations in electricity retail prices	-1.1	-1.1	• Sourcing of renewable energy: Adopt corporate PPA to secure longterm stability at fixed prices, etc. • Promote introduction of photovoltaic power generation equipment
			Raw material price increase	Higher prices of fossil-based raw materials	–*1	–*1	• Continue to study reduction of fossil-based raw materials by deepening product design
				Higher procurement costs for palm oil*2	-79.1	-76.1	• Maximize utilization of palm oil, a limited resource: Develop raw materials for high-performance agents (Bio IOS) • Promote research and development of usage of alternative raw materials (algae-derived oils, unused biomass, CO_2, etc.)
	Physical	Acute	Intensification of extreme weather	Increase in flood damages	-0.4	-4.6	• Establish a production system that takes BCP into account • Conduct risk surveys for suppliers
Opportunities	Product and Service	<Mitigation> • Global Consumer Care Business: Expand ethical products (water-saving, energy-saving, plastic waste reduction, third-party certified label products, etc.) business • Chemical Business: Develop and sell products that help customers reduce climate change risks • Common: Promote products utilizing CCUS (CO_2 utilization) technology <Adaptation> • Enhance products that contribute to clean and comfortable living even in higher temperatures (detergent, antibacterial, antiperspirants, repellents, etc.) • Enhance products that protect skin from strong sunlight (Skin Protection business) Sales target of Skin Protection business (UV care, selftanning, repellents, etc.) in 2030: 100 billion yen					• Promote product development in line with the Kao Sustainable Product Development Policy • Promote sales of Sustainable products for Chemical Business

*1 At the time of the survey, raw material prices had already spiked and remained high due to heightened geopolitical risks and did not appear as a financial impact.
*2 Future prices were estimated by introducing a multiple regression analysis method based on past palm oil/kernel oil price trends.

Strategy

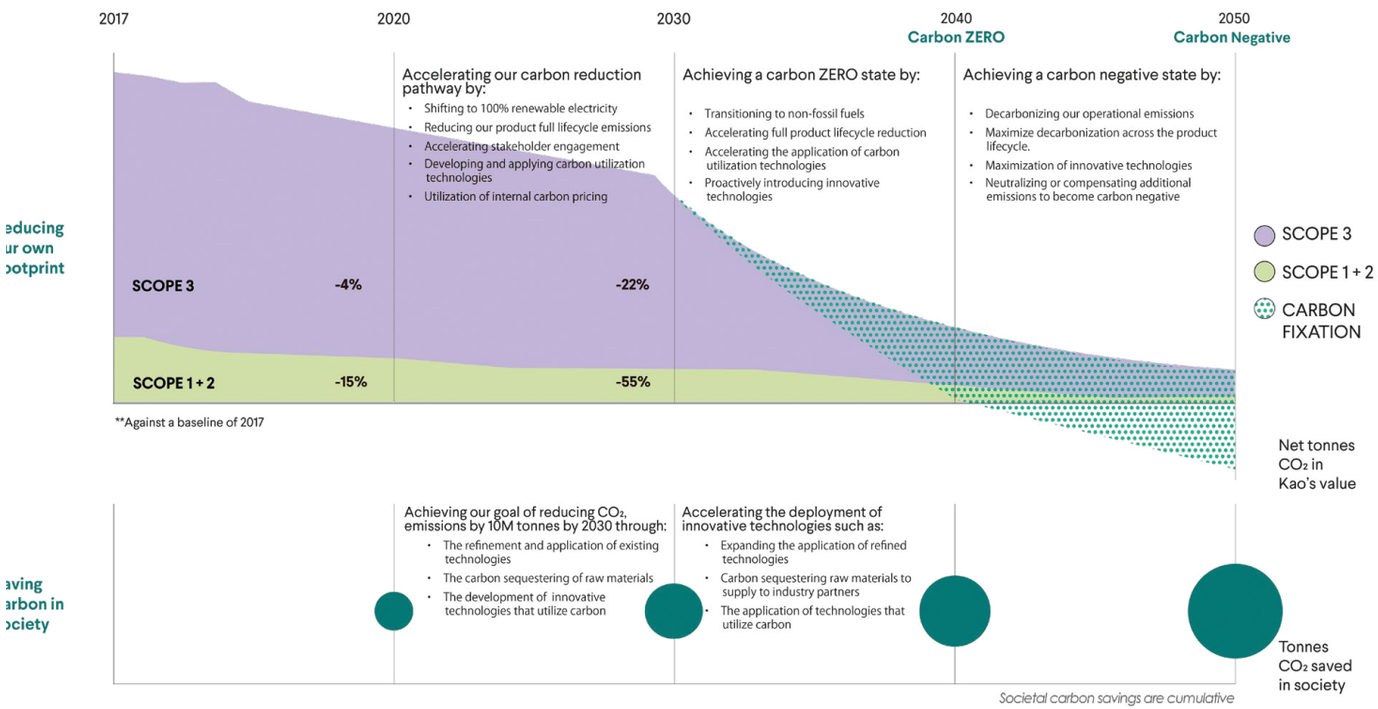
Kao has formulated the following strategies to respond to the identified risks and opportunities. With climate change mitigation as a central focus, Kao aims to help reduce emissions across society and adapt to a changing environment, thereby contributing to a sustainable world while driving business growth. This theme is a core strategy directly aligned with Mid-term Plan K27's basic policy of "becoming an essential company in a sustainable world."

We are committed to thoroughly reducing our GHG emissions, and promoting low-carbon practices through the entire product lifecycle, from raw material procurement to manufacturing, logistics, use, and disposal. By promoting the adoption of renewable energy and expanding energy efficient facilities, we aim to achieve carbon zero by 2040 and carbon negative by 2050.

Kao will thoroughly reduce greenhouse gas emissions throughout its value chain and promote decarbonization across the entire product lifecycle. In raw material procurement, Kao will adopt low-carbon materials through co-creation with suppliers and expand the use of recycled and renewable materials. At its production sites, Kao will promote investment in low-carbon equipment through the operation of internal carbon pricing and improve emissions intensity by expanding the use of renewable energy and advancing comprehensive decarbonization initiatives. In logistics, Kao will enhance transportation efficiency and optimize logistics networks. During the consumer use phase, Kao will reduce energy and water consumption by promoting products equipped with water-saving and energy-efficient features. During the disposal phase by consumer, Kao will reduce CO_2 emissions through the expansion of refill products, product concentration, and the recycling of waste materials.

Under its Carbon Zero goal for 2040, Kao aims to achieve virtually zero greenhouse gas emissions throughout the entire lifecycle, including Scope 1, 2, and 3 emissions. Kao will first maximize emissions reductions within its own operations and value chain and then address residual emissions through the utilization of carbon sequestration and carbon recycling technologies. By 2050, Kao aims to achieve Carbon Negative by scaling up the use of these technologies. Kao recognizes that achieving Carbon Zero and Carbon Negative cannot be accomplished by a single company alone. It requires society-wide efforts, including the

Decarbonization roadmap towards becoming carbon zero by 2040 and carbon negative by 2050



transition of energy systems, the advancement of resource circulation, the transformation of social infrastructure, and the widespread implementation of carbon sequestration and carbon recycling technologies. Accordingly, Kao will continue its own emissions reduction efforts while contributing to the decarbonization of society through collaboration across supply chains and industries.

With regard to the use of carbon removal and offset credits, Kao will prioritize direct emissions reductions within its own operations and value chain. Based on considerations such as credibility, technological maturity, and the level of renewable energy deployment in each region, Kao will evaluate their use as necessary.

We also intend to play a greater role in reducing emissions throughout society through our products and technologies. By providing environmentally friendly products such as water- and energy-saving detergents, recycled plastic containers, and durable asphalt modifiers utilizing waste PET, we will help reduce CO_2 emissions during and after use, thereby driving decarbonization for consumers and industries.

Furthermore, as the impacts of climate change intensify, we will enhance our product development to support people's lives and communities' resilience. Through initiatives such as our Skin Protection Business, which adapts high-temperature environments and UV rays, and our *NEWTLAC* Business, which enhances infrastructure durability, we will translate climate adaptation into new value creation and growth opportunities.

(1) Promotion of innovative initiatives toward carbon zero by 2040 and carbon negative by 2050

Toward the realization of the ambitious goals of carbon zero by 2040 and carbon negative by 2050, we aim to reduce climate change risks through innovative technologies and solutions, while also creating new business opportunities.

Related initiatives: P153 Efforts in raw materials (Mitigation), P153 Efforts in production (Mitigation), P155 Efforts in distribution (Mitigation), P155 Efforts during use (Mitigation and Reduction), P156 Efforts in disposal and recycling (Mitigation)

(2) Decarbonization of raw materials and waste

We will promote an integrated decarbonization approach that encompasses the entire resource circulation process, from raw material production and procurement through post-use disposal and recycling. Among other initiatives, we will adopt low-carbon raw materials, utilize recycled materials, and recycle waste through co-creation with suppliers. Through these measures, we will reduce emissions across the entire value chain to strengthen our foundation for sustainable raw material procurement and enhance our competitiveness.

Related initiatives: P153 Efforts in raw materials (Mitigation), P156 Efforts in disposal and recycling (Mitigation) , P156 Examples of major collaboration projects with stakeholders

(3) Decarbonization in manufacturing and logistics (Enhancing energy efficiency)

We will accelerate the reduction of energy-related emissions across the entire production and supply chain to minimize our environmental impact and strengthen our business foundation. To this end, investment in low-carbon facilities will be promoted through internal carbon pricing, while energy efficiency will be improved by expanding the use of renewable energy and comprehensive decarbonization initiatives. Furthermore, by streamlining distribution and optimizing our logistics network, we will promote decarbonization from manufacturing to supply and build a sustainable and resilient supply chain.

Related initiatives: P153 Efforts to help reduce emissions across society

(4) Decarbonization in product use (Expanding our lineup of water and energy-saving products)

By reducing energy and water use during the product use stage, we aim to lower CO_2 emissions for consumers and throughout society. We will advance the development and adoption of high-efficiency washing and rinsing technologies and products with water- and energy-saving features to continuously reduce environmental impact during product use. In doing so, we will provide a framework that enables consumers to live low-carbon lifestyles, thereby achieving both society-wide emissions reduction and the sustainable enhancement of Kao's brand value.

Related initiatives: P155 Adaptation efforts, P155 Initiatives that help reduce CO_2 emissions throughout society

(5) Helping reduce CO_2 emissions throughout society

Through its products, Kao will help reduce CO_2 emissions throughout society while supporting both low-carbon lifestyles for consumers and emission reductions during business activities for our corporate customers.

We will enhance our lineup of products for the Global consumer care products that reduce emissions in daily life through water and energy-saving, refilling, and reuse, among other features.

For products for Chemical Business, we will continue to develop and supply environmentally friendly raw materials for our corporate customers' products and materials and promote decarbonization across various fields.

Through these initiatives, Kao will continuously help reduce emissions throughout society and continue to create value as we work towards decarbonizing society.

Related initiatives: P155 Efforts in manufacturing (plants, offices, logistics centers),

(6) Strengthening resilience through climate adaptation products and technologies

To address rising temperatures, increasingly frequent natural disasters, and other climate change-induced impacts on living environments and public infrastructure, Kao will develop products and technologies to enhance the resilience of people's lives and local communities.

Through Global consumer care products, we will provide solutions that ensure comfort and safety amid climate change, including skin protection against strong UV rays or high temperatures, as well as hygiene and health products.

We will provide products for Chemical Business that enhance the weather resistance and durability of public infrastructure, including durable asphalt modifiers using waste PET and raw materials that improve performance of infrastructure materials.

Through these initiatives, Kao will address the impacts of climate change while building a resilient business foundation that will help ensure social safety and security and drive sustainable business growth.

Related initiatives: P157 Adaptation efforts

Impact generated by implementing the strategies

We believe that the aforementioned strategies will have the following financial, environmental and social impacts.

Financial impact

- Sales increase of water-saving products: 10.6%
- Sales increase of products for Chemical Business that contribute to CO_2 reduction (avoided emissions)
- Cost reduction through energy saving: 180 million yen
- Increased sales of products for adapting to climate change
- Investment and costs for eco-conscious R&D: 9,069 million yen
- Economic value of Scope 1 emissions reduced, calculated using ICP: approximately 140 million yen

Environmental and social impact

- Avoided emissions in Global consumer care products: 1,893 thousand tons-CO_2
- Avoided emissions in products for Chemical Business: 2,592 thousand tons-CO_2
- CO_2 reduction in the use stage: 1.3%
- Net CO_2 reduction through TCR: 5,649 t-CO_2 (Scope 1, production sites)

Strategic resilience

Kao performs scenario analysis of climate change risks and opportunities based on the TCFD recommendations to assess and enhance long-term business resilience. Through this analysis, we verify the validity of our strategies for addressing physical and transition risks, and we are preparing a system that will ensure business sustainability under a variety of climate change scenarios.

Metrics and targets

To improve the effectiveness of our strategies, we have established performance metrics related to risks and opportunities, and we regularly monitor progress. We have set targets for the metrics related to particularly important risks and opportunities, and we are steadily promoting initiatives by repeatedly making improvements through the PDCA cycle to track progress toward achieving these targets.

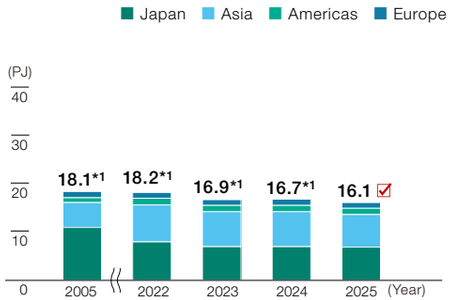
The reduction in lifecycle CO_2 emissions (absolute emissions) from the baseline year reached 17% in 2025. To achieve the 2030 target of 22%, an additional reduction of 5 percentage points is required over the remaining five years, equivalent to approximately 1 percentage point per year on average. The reduction from the baseline year improved by 1 percentage point between 2024 and 2025. The reduction in Scope 1 and 2 CO_2 emissions (absolute emissions) from the baseline year reached 47% in 2025. To achieve the 2030 target of 55%, an additional reduction of 8 percentage points is required over the remaining five years, equivalent to approximately 2 percentage points per year on average. The reduction from the baseline year improved by 6 percentage points between 2024 and 2025. Renewable electricity accounted for 78% of total electricity consumption in 2025, against the 2030 target of 100%. To achieve the target, an additional 22 percentage points are required over the remaining five years, equivalent to approximately 4 percentage points per year on average. The share of renewable electricity increased by 9 percentage points between 2024 and 2025. Avoided emissions from products and services reached 4,485 thousand tonnes of CO_2 in 2025, equivalent to 45% of the 2030 target of 10,000 thousand tonnes of CO_2. To achieve the target, an additional 55 percentage points in achievement rate are required over the remaining five years, equivalent to approximately 11 percentage points per year on average. The achievement rate improved by 2 percentage points between 2024 and 2025. To achieve the avoided emissions target over the remaining five years, Kao will expand the availability of water-saving detergents and resource-efficient packaging across global markets in its Global Consumer Care Business. In its Chemical Business, Kao will expand sales of products contributing to avoided emissions, including asphalt modifiers utilizing waste PET and rust preventive cleaning agents that reduce CO_2 emissions from cleaning processes by preventing corrosion during the transportation of machinery parts. At the same time, Kao will continue to develop new products that contribute to avoided emissions.

Targets and progress

Strategy	Metrics	Results					Mid- to long-term targets	
		2017	2022	2023	2024	2025	Target value	Year
(1) (2) (3) (4) (5)	% reduction in absolute lifecycle CO_2 emissions (Base year: 2017)	0%*1*2	6%*1*2 (6%)	12%*1*2 (12%)	16%*1*2 (15%)	17%	22%	2030
(3)	% reduction in absolute scope 1 + 2 CO_2 emissions (Base year: 2017)	0%*1	26%*1 (26%)	35%*1 (35%)	41%*1 (42%)	47%	55%	2030
	% of renewable energy in electricity consumption	–	48% (49%)	57% (57%)	69% (69%)	78%	100%	2030

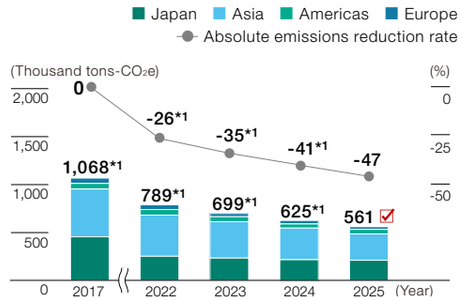
* Kao received certification from the Science Based Targets initiative (SBTi) for its science-based greenhouse gas emissions reduction targets.
* Values in parenthesis are based on former definition.
*1 Due to a review of the scope of calculations, the Scope 1 + 2 CO_2 emissions from Inogami Co., Ltd. (approximately 11 thousand tons/year) in the Kao Group are reflected in the data from 2025 onward. We have also retroactively revised the data from previous fiscal years up to 2017. The impact of these revisions amounts to approximately 1% of the Scope 1 + 2 CO_2 emissions in the base year and does not materially affect the overall trend.
*2 To enhance the accuracy of calculations regarding Scope 3 CO_2 emissions, we have changed the basic unit of our calculation method from product groups to individual SKUs within some businesses starting in 2025. The data on Scope 3 CO_2 emissions in 2024 has been recalculated with SKUs as the basic unit, and the differences from the figures based on the old method have also been calculated. Past data from 2017 to 2023 has been retroactively revised on the basis of these differences.

Energy consumption (all sites)



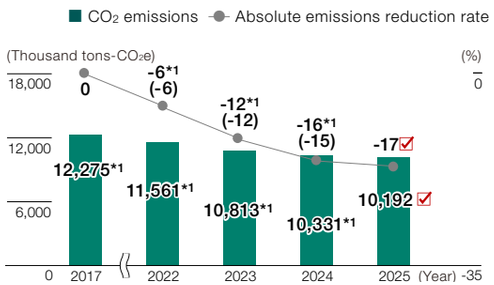
* Boundary: All Kao Group sites excluding Oribe Hair Care, LLC and Washing Systems, LLC, including company cars in Japan
* Assurance provided for energy consumption figures
*1 Energy consumption data have been revised retroactively to the base year of 2005 due to a review of the scope of calculation for Inogami Co., Ltd. in the Kao Group, with reference to the GHG Protocol.

GHG emissions (all sites)



* Boundary: All Kao Group sites excluding Oribe Hair Care, LLC and Washing Systems, LLC, including company cars in Japan
* Gases included: The seven GHGs specified by the Kyoto Protocol (only CO_2 for sites outside Japan)
* Assurance provided for GHG emissions figures
*1 Greenhouse gas emissions data have been revised retroactively to the base year of 2005 due to a review of the scope of calculation for Inogami Co., Ltd. in the Kao Group, with reference to the GHG Protocol.
The impact of this revision is approximately 1% of the combined Scope 1 + 2 base-year emissions.

CO_2 emissions across the entire product lifecycle (Kao Group)



* "CO_2 emissions over the entire product lifecycle" is calculated by multiplying the CO_2 emissions over the product lifecycle per unit volume of products sold both within and outside Japan (excluding the Group's production and logistics processes) by the annual sales volume of the product in question and adding up the actual amount of CO_2 emissions over the Group's production and logistics processes. However, this amount does not include emissions related to the use and disposal of products for Chemical Business.
* Assurance provided for CO_2 emissions figures and absolute emissions reduction rate
* Values in parenthesis are based on former definition.
*1 To enhance the accuracy of calculations regarding Scope 3 CO_2 emissions, we have changed the basic unit of our calculation method from product groups to individual SKUs within some businesses starting in 2025. Thisrevision increased the Scope 3 base year emissions by approximately 350 thousand tons. The data on Scope 3 CO_2 emissions in 2024 has been recalculated with SKUs as the basic unit, and the differences from the figures based on the old method have also been calculated. Past data from 2017 to 2023 has been retroactively revised on the basis of these differences.

Metrics and results

Strategy	Metrics		Results 2017	2022	2023	2024	2025	Unit
(3)	GHG emissions (all sites)*5		1,068 *1	789 *1	699 *1	625 *1	561 ☑	Thousand tons-CO_2e
	Scope 1 GHG emissions*6	Japan	278 *2	246 *2	229 *2	213 *2	207	
		Asia	290	256	237	221	206	
		Americas	43	51	46	41	46	
		Europe	49	48	34	35	28	
		Total	660 *2	602 *2	546 *2	509 *2	486 ☑	
	Scope 2 GHG emissions*7	Japan	178 *3	7 *3	4 *3	4 *3	5	
		Asia	208	173	143	109	69	
		Americas	14	7	5	2	1	
		Europe	8	1	0	1	0	
		Total	408 *3	187 *3	154 *3	116 *3	75 ☑	
(2) (3) (4)	CO_2 emissions across the entire product lifecycle (Kao Group)*8		12,275 *1*4	11,561 *1*4	10,813 *1*4	10,331 *1*4	10,192 ☑	
	Scope 3 GHG emissions	1. Purchased goods and services	4,852 *4	4,434 *4	4,206 *4	4,092 *4	4,053 ☑	
		2. Construction and building of capital goods	239	285	281	281	305	
		3. Fuel- and energy-related activities (not included in scope 1 or scope 2)	29	58	57	56	55	
		4. Upstream transportation and distribution	253	241	234	238	255 ☑	
		5. Waste generated in operations	58	66	58	58	57	
		6. Business travel	4	5	4	4	4	
		7. Employee commuting	18	18	18	17	14	
		8. Upstream leased assets	0	0	0	0	0	
		9. Downstream transportation and distribution	97	109	104	100	79	
		10. Processing of sold products	119	131	128	140	139	
		11. Use of sold products	4,687	4,680	4,349	4,107	4,077 ☑	
		12. End-of-life treatment of sold products	1,415	1,417	1,324	1,268	1,246 ☑	
		13. Downstream leased assets	0	0	0	0	0	
		14. Franchises	0	0	0	0	0	
		15. Investments	8	5	8	8	2	
		Total	11,779 *4	11,449 *4	10,772 *4	10,369 *4	10,287	

*1 Due to a review of the scope of calculations, the Scope 1 + 2 CO_2 emissions from Inogami Co., Ltd. (approximately 11 thousand tons/year) in the Kao Group are reflected in the data from 2025 onward. We have also retroactively revised the data from previous fiscal years up to 2017. The impact of these revisions amounts to approximately 1% of the Scope 1 + 2 CO_2 emissions in the base year and does not materially affect the overall trend.

*2 Due to a review of the scope of calculations, the Scope 1 CO_2 emissions from Inogami Co., Ltd. (approximately 7 thousand tons/year) in the Kao Group are reflected in the data from 2025 onward. We have also retroactively revised the data from previous fiscal years up to 2017. The impact of these revisions amounts to approximately 1% of the Scope 1 CO_2 emissions in the base year and does not materially affect the overall trend.

*3 Due to a review of the scope of calculations, the Scope 2 CO_2 emissions from Inogami Co., Ltd. (approximately 4 thousand tons/year) in the Kao Group are reflected in the data from 2025 onward. We have also retroactively revised the data from previous fiscal years up to 2017. The impact of these revisions amounts to approximately 1% of the Scope 2 CO_2 emissions in the base year and does not materially affect the overall trend.

*4 To enhance the accuracy of calculations regarding Scope 3 CO_2 emissions, we have changed the basic unit of our calculation method from product groups to individual SKUs within some businesses starting in 2025. This revision increased the Scope 3 base year emissions by approximately 350 thousand tons. The data on Scope 3 CO_2 emissions in 2024 has been recalculated with SKUs as the basic unit, and the differences from the figures based on the old method have also been calculated. Past data from 2017 to 2023 has been retroactively revised on the basis of these differences.

*5 Boundary: All Kao Group sites excluding Oribe Hair Care, LLC and Washing Systems, LLC, including company cars at Japan Gases included: The seven GHGs specified by the Kyoto Protocol (only CO_2 for sites outside Japan)

*6 Emissions by scope conform to the Greenhouse Gas Protocol initiative
Scope 1: GHG emissions emitted directly by the company/organization
Scope 2: Indirect GHG emissions from purchased electricity, heat, etc.

*7 Emission factors
Scope 1: In principle, uses factors defined in the Law Concerning the Promotion of Measures to Cope with Global Warming
Scope 2: In principle, uses the specific factors of the country's laws or regulations. When the specific factor cannot be obtained, the country-based factor released by the IEA is used.

*8 "CO_2 emissions over the entire product lifecycle" is calculated by multiplying the CO_2 emissions over the product lifecycle per unit volume of products sold both within and outside Japan (excluding the Group's production and logistics processes) by the annual sales volume of the product in question and adding up the actual amount of CO_2 emissions over the Group's production and logistics processes. However, this amount does not include emissions related to the use and disposal of chemical for industrial customers.

Category 1: Purchased goods and services This value is calculated by multiplying CO_2 emissions associated with raw materials per unit of product sold (both within and outside Japan) by the total annual sales volume of the product in question. CO_2 emissions associated with raw materials are calculated by multiplying the weight of raw materials purchased by inventory data (using supplier surveys, documentary data, commercially available databases, etc.).

Category 4: Upstream transportation and distribution CO_2 emissions associated with transporting products (both within and outside Japan) while Kao Group acts as consignor. For Japan, the calculation is made using the criteria specified by the Energy Conservation Act. For areas outside Japan, the calculation is made by Kao based on data for Japan. International transportation is not included in the calculation.

Category 11: Use of sold products This value is calculated by multiplying CO_2 emissions associated with product use per unit of product sold (both within and outside Japan) by the total annual sales volume of the product in question. Industrial-use products are excluded. CO_2 emissions associated with product use are calculated by multiplying the amount of water, hot water and electric power consumed during product use by inventory data (using documentary data, commercially available databases, etc.)

Category 12: End-of-life treatment of sold products This value is calculated by multiplying CO_2 emissions associated with the disposal or recycling of sold products (both within and outside Japan) by the total annual sales volume of the product in question. CO_2 emissions associated with the disposal or recycling of industrial-use products are excluded. CO_2 emissions associated with disposal or recycling are the sum of CO_2 emissions associated with the disposal or recycling of product content and product packaging. Emissions from product content are calculated by converting all content that consists of fossil-derived carbon into CO_2. Emissions from product packaging are calculated by multiplying packaging material weight broken down by the appropriate percentage of disposal by incineration, landfill or recycling for each category of material in line with each country's performance in this regard by inventory data (using documentary data, commercially available databases, etc.)

* Kao focuses on the categories of 1, 3, 4, 5, 11 and 12 related to site activities to save energy and reduce waste materials, as well as on the product lifecycle.
We calculate Scope 3 Categories 1, 11, and 12 based on the Life Cycle Assessment (LCA) approach. Detailed LCA Calculated by multiplying the CO_2 emissions per unit of each SKU sold in Japan by the annual sales volume of the corresponding SKU. Simplified LCA Calculated by multiplying the CO_2 emissions per unit of product groups sold in Asia, the Americas, and EMEA (Europe, the Middle East and Africa) by the annual sales volume of the respective product groups.

GHG emissions quantification is subject to uncertainty when measuring activity data, determining emission factors, and considering scientific uncertainty inherent in the Global Warming Potentials. Hence, the selection by management of a different but acceptable measurement method, activity data, emission factors, and relevant assumptions or parameters could have resulted in materially different amounts being reported.

In accordance with the Greenhouse Gas Protocol (The Greenhouse Gas Protocol: A Corporate Accounting and Reporting Standard), the Scope 1 and Scope 2 emissions and estimated lifecycle CO_2 emissions of Inogami Co., Ltd. in the Kao Group, have been retroactively incorporated into the base year of 2017.

Strategy	Metrics	Results						
		2005	2021	2022	2023	2024	2025	Unit
(3)	Energy consumption (all sites) *9	18.1*10	18.6*10	18.2*10	16.9*10	16.7*10	16.1*10 ☑	PJ

*9 Boundary: All Kao Group sites, including company cars in Japan
*10 Energy consumption data have been revised retroactively to the base year of 2005 due to a review of the scope of calculation for Inogami Co., Ltd. in the Kao Group, with reference to the GHG Protocol.

Strategy	Metrics		Results					
			2021	2022	2023	2024	2025	Unit
(3)	Purchased electricity, steam, etc.*11	Electricity	7,934	7,634	7,062	6,836	6,748	TJ
		Heat	0	0	0	0	0	
		Steam	232	210	201	192	178	
		Cooling	0	0	0	0	0	
	Fuel consumption by fuel type	Natural gas	8,723	8,553	7,847	8,071	7,472	TJ
		Diesel oil	1,095	1,077	938	851	843	
		Gasoline	104	110	109	103	94	
		Other	126	123	116	105	99	
		Waste vegetable oil (heat recovery)	304	346	252	299	321	

*11 Electricity is calculated as the calorific value of the primary energy (at the receiving end in Japan, generating end outside Japan).

Strategy	Metrics		Results					
			2017	2022	2023	2024	2025	Unit
(3)	CO_2 emissions from transportation (Japan) *12 *13		98	102	99	99	98 ☑	Thousand tons-CO_2
		Absolute reduction rate	0	5.8	1.4	0.7	-0.2	%

*12 Boundary: Kao Corporation and Kanebo Cosmetics Inc.
*13 Assurance provided for CO_2 emissions

Strategy	Metrics		Results					
			2021	2022	2023	2024	2025	Unit
(3)	Renewable energy-derived power (Global)	% of renewable energy in purchased electricity	51*14	63*14	71*14	86*14	92	%
		% of renewable energy in electricity used	39*14 (40)	48*14 (49)	57*14 (57)	69*14 (69)	78	

* Values in parenthesis are based on former definition.
*14 Due to a review of the scope of calculations, energy consumption data from Inogami Co., Ltd. in the Kao Group are reflected in the data from 2025 onward. We have also retroactively revised the data from previous fiscal years up to 2021.

Strategy	Metrics		Results					
			2021	2022	2023	2024	2025	Unit
(3)	Renewable energy-derived power (Japan)	% of renewable energy in purchased electricity	84*15	95*15	97*15	97*15	97	%

*15 Kao announced that it achieved 100% renewable electricity for purchased electricity in Japan in 2023. However, this result excluded Inogami Co., Ltd., in the Kao Group, from the scope of calculation. Following the inclusion of Inogami Co., Ltd. in the scope of calculation and the retroactive revision of the renewable electricity ratio for purchased electricity, the ratio was revised to 97% for both 2023 and 2024.

Strategy	Metrics		Results						
			2020	2021	2022	2023	2024	2025	Unit
Overall	CDP evaluation	Climate change	A	A	A	A	A	A	–
		Forest (palm oil/timber)	A / A-	A / A	A / A	A / A	A	A	
		Water conservation	A	A	A	A	A	A	
		Supplier engagement	A	A	A	A	A	A	

Governance

Risk management in relation to climate change issues is carried out by the Internal Control Committee and the ESG Managing Committee, while opportunity management is carried out by the ESG Managing Committee, under the supervision of the Board of Directors.

Furthermore, in order to promote the management of progress and strategies for decarbonization targets in an integrated manner, the Decarbonization Steering Committee, has been established as a subordinate organization of the ESG Managing Committee.

This committee reports to the Board of Directors and is supervised by the Board of Directors.

We launched an e-learning program for employees in 2020 to promote the Kirei Lifestyle Plan, educating them on essential knowledge and encouraging efficient energy use.

P62 Our ESG Vision and Strategy > Governance

Risk and opportunity management

Policies

In implementing decarbonization, Kao has formulated the following policies as guidelines for daily operations and decision-making. For details, please see the website.

- Basic Principle and Basic Policies on Environment and Safety
  https://www.kao.com/global/en/sustainability/klp/policy/environment-safety-policy/
- Kao Group Responsible Care Policy
  https://www.kao.com/global/en/sustainability/klp/policy/responsible-care-policy/
- Kao Environmental Statement
  https://www.kao.com/global/en/sustainability/klp/policy/environmental-statement/
- Kao Sustainable Product Development Policy
  https://www.kao.com/global/en/sustainability/klp/policy/product-development-policy/
- Action Policy on “High-Risk Supply Chain Management and Sourcing”
  https://www.kao.com/global/en/sustainability/we/procurement/procurement-supply-chain/

Management process

The status of our efforts to address the risks and opportunities involved in achieving a decarbonized society is managed through the following processes: planning, implementation, evaluation of results, and correction, and we are working to make steady improvements. In addition, throughout the year, the Decarbonization Steering Committee examines issues in the PDCA cycle and works to improve activities.

P (Planning)

Design of activities for the following year (November-December), approval of targets (February)

D (Implementation)

Improvement and promotion activities (from February)

C (Evaluation of results)

Activity results (from April), activity results reported in the Sustainability Report (June) and report on the activity results at CDP (October)

A (Corrective action)

Review and identification of areas for improvement (October)

Initiatives

Kao is taking various initiatives to help realize a decarbonized society. These initiatives are based on the aforementioned strategies and are being promoted in coordination to achieve our goals. Here, we would like to introduce some of the important initiatives from among the many we are undertaking.

	Strategy	Initiatives			
Overall	(1) Promote innovative initiatives toward carbon zero by 2040 and carbon negative by 2050	Strategic discussion at the Decarbonization Steering Committee			
Overall	(2) Decarbonize raw materials and disposal processes	Low-carbon raw materials	Use of biomass-derived plastics and raw materials	Partnership with suppliers (Kao Partner Summit/CDP supply chain)	Social implementation of carbon recycling technology
Sites	(3) Decarbonize manufacturing and logistics processes (Improve energy efficiency)	Reduction of energy use	Use of cleaner energy	Switching to renewable energy for purchased electricity (increasing procurement in Asia)	Setting appropriate internal carbon pricing and using it for capital investment
Products	(4) Reduce carbon emissions from use (enhance the lineup of water-saving and energy-efficient products)	Expansion of water-saving products	Expansion of products that require only one rinse in laundry detergents	Expansion of sales of detergents with good foam rinsing properties	
Products	(5) Contribute the realization of a low-carbon society	Expansion of products that contribute to avoided emissions	Collaboration with governments and NGOs	Collaboration with distribution	Communicating the company’s attitude through the company slogan “Wastefulness—Mottainai. Never today, nor tomorrow.”
Products	(6) Strengthen resilience through climate adaptation-oriented products and technologies	Expansion of sales of skin protection products such as UV care products	Expansion of sales of infection control products such as disinfectants	Expansion of sales of summer products such as antiperspirants	Addressing physical risks at production and logistics sites

Efforts in raw materials (Mitigation)

Region: Global
Corresponding strategy: (1) (2)

Kao Partner Summit

We hold the Kao Partner Summit, inviting key suppliers to explain our ESG initiatives, including our decarbonization efforts, while also requesting their cooperation. We are working to strengthen our cooperative relationship with suppliers in order to enhance sustainable procurement (including joining Sedex, participation in the CDP Supply Chain initiative, etc.) and stable procurement (traceability of raw materials, responding to BCP requirements, etc.).

CDP Supply Chain Program (Climate Change, Forests, Water)

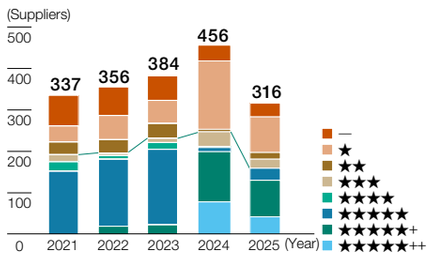
In 2009, we became the first Japanese company to participate in the CDP Supply Chain Program (Climate Change, Forests, Water). Through this program, we encourage suppliers to actively promote CO_2 reduction activities, while we evaluate their efforts and provide feedback. This helps us deepen our collaboration with suppliers and promote decarbonization throughout the supply chain.

In recognition of these initiatives, Kao was awarded the Supplier Engagement Leader, the highest rating for CDP Supplier Engagement Assessment, for the eighth consecutive year.

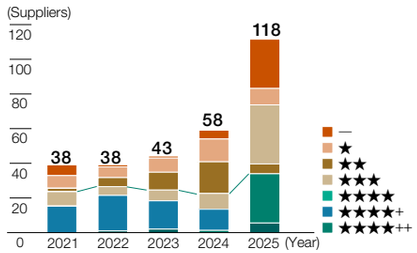
The results of Kao's own supplier survey using the CDP Supply Chain Program in 2025 are as follows.

In 2025, Kao reviewed the suppliers selected for assessment in the areas of Climate Change, Water Security, and Forests. Kao will continue to leverage the CDP Supply Chain Program to engage with suppliers and strengthen collaboration throughout the supply chain.

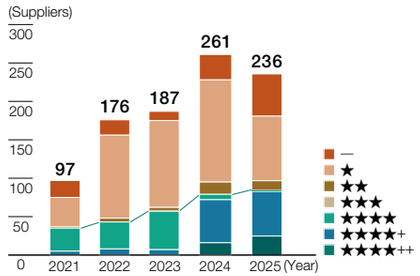
Supplier activity level (Climate Change)



Supplier activity level (Forests)



Supplier activity level (Water Security)



Efforts in manufacturing (plants, offices, logistics centers) (Mitigation)

Region: Global
Corresponding strategy: (1) (3)

Kao promotes initiatives to achieve energy efficiency targets across all its plants and monitors energy consumption trends annually. Under our framework, these initiatives are overseen by the headquarters and implemented by energy managers at each plant.

To enhance the energy efficiency of individual plants, we select optimal methods suited to each site's characteristics. Such measures include the introduction of BPT (Best Practice Technologies) equipment, heat pumps, and other high-efficiency equipment, as well as efficient equipment operation and energy-saving practices.

At our plants in Japan, we conduct not only annual monitoring but also monthly self-inspections. In 2025, a total of 177 energy-saving activities were carried out at our Japanese plants, achieving an annual CO_2 reduction of 3,000 tons and a cost reduction of approximately 180 million yen.

To ensure additionality in introducing renewable energy, we are promoting the adoption of photovoltaic power generation systems. In 2025, newly installed photovoltaic power generation systems came into operation at the Toyohashi Plant automated warehouse, Kao Indonesia's Karawang Plant, Kao Corporation Shanghai, and the Sumida Office.

In addition, to track and analyze energy consumption trends and streamline data collection, administrative department staff and on-site plant personnel serve as citizen developers are expanding system development initiatives as part of on-site DX activities.

As part of our efforts to enhance the energy efficiency at our plants, we have introduced high-efficiency equipment, such as BPT (Best Practice Technologies) and heat pumps, and we are also working to reduce unnecessary energy use by efficiently operating equipment and promoting energy-saving activities. We are currently carrying out TCR (Total Cost Reduction), a company-wide management reform initiative to optimize operations and facility management. Through TCR, we have reduced energy consumption and streamlined processes at our plants, thereby cutting Scope 1 CO_2 emissions by 5,649 tons. When calculated using ICP (Internal Carbon Pricing), this equates to approximately 140 million yen.

We are promoting the purchasing of renewable electricity. Of the electricity we purchased in 2025, 92% was from renewable sources globally, with Japan at 97% and overseas at 87%. In 2025, we placed particular emphasis on sourcing renewable energy in the Philippines and Vietnam. Starting in 2025, the calculations include results from Inogami Co., Ltd. in the Kao Group. Although Kao announced that it had achieved 100% renewable energy sourcing for all purchased electricity in Japan in 2023, that figure did not include Inogami. When retroactively adjusted to include Inogami, the renewable energy share of Kao's purchased electricity in Japan was 97% in 2023 and 97% in 2024. We will continue to actively procure renewable energy and advance efforts toward achieving 100% renewable electricity across the Kao Group.

Of the electricity we consumed, renewable energy accounted for 78% globally in 2025, and the adoption of renewable energy reduced CO_2 emissions by 380 thousand tons. We will continue to promote the use of renewable energy.

Since implementing the internal carbon price system in 2006, Kao has been promoting deployment of energy-saving and low CO_2 facilities, and procurement of renewable energy. This carbon price system is primarily applied to promote the reduction of Scope 1 and 2 emissions. Our current internal carbon price is USD 168 per ton of CO_2. Under this framework, we have approved projects such as the hot water heat pump at the Wakayama Plant (operation commenced in 2024) and the photovoltaic power generation system at Kao Industrial Thailand (operation commenced in January 2025). These initiatives are driving the proactive implementation of energy-efficient production equipment, decarbonization technologies, and the transition to renewable electricity.

In addition, at our Chemical Business plant in Spain, we installed a new facility that uses biomass for thermal energy. This has made it possible to reduce CO_2 emissions from the plant by 95%.

- Kao begins operation of 5.0MW photovoltaic power generating facility, the largest in the Kao Group, at Indonesian Plant (May 2025).
  https://www.kao.com/global/en/newsroom/news/release/2025/20250528-001/
- Kao installs a new biomass thermal energy facility at a plant in Spain (December 2024).
  https://www.kao.com/global/en/newsroom/news/release/2023/20230714-001/

Production (plant, office, logistics center) initiatives (Adaptation)

Region: Global
Corresponding strategy: (6)

As a company with a global value chain, Kao recognizes that the intensification of climate change-related natural disasters—such as typhoons and floods —could cause significant damage to our operations worldwide.

To address this risk, we have conducted flood risk assessments of our plants, offices, and logistics centers in Japan based on hazard maps published by local governments, and are currently considering physical countermeasure options based on the assessment results, with the review process targeted for completion around 2026. Meanwhile, since flood and storm surge risk data for many of our overseas plant locations are not publicly available from local governments, we are voluntarily conducting risk assessments and planning or implementing countermeasures at sites where they are needed. We are currently working to complete flood risk assessments for all overseas plants by 2030 with the goal of completing flood countermeasures during the 2030s.

In 2025, we completed the assessments for 100% of our existing sites in Japan, 60% of our existing sites overseas, and 100% of new sites.

Among our existing sites, PKI in the Philippines—which faces high river flooding and storm surge risks—underwent an assessment of both the flood risk from the uphill side of the site and the storm surge risk from the coastal side caused by typhoons. In 2025, we installed flood barriers at the front gate, cargo gates, and other entrances as flood countermeasures. In 2026, we plan to implement storm surge countermeasures at the pier, which is equipped with docking facilities, including measures to prevent water intrusions. Additionally, for the Cikarang Plant, our household products plant in Indonesia, we assessed the flood risk posed by a nearby river in 2025. The assessment concluded that, as the risk is low due to the site's elevated ground level, no

countermeasures are required at this location.

The 2025 assessment also covered one new site—the tertiary amine production plant in Texas, United States—for which we completed a flood risk assessment in accordance with the state's standards.

Efforts in distribution (Mitigation)

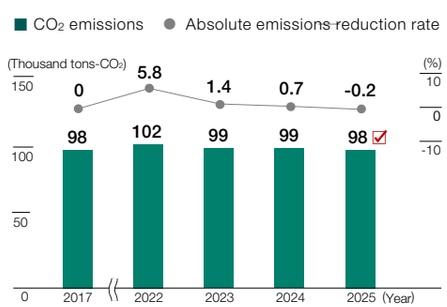
Region: Global
Corresponding strategy: (1) (3)

In 2025, the CO_2 emissions from distribution in Japan was 98 thousand tons-CO_2, an 0.2% decrease compared to 2017. To reduce emissions, we are promoting modal shifts that enable larger shipment volumes per delivery, shorter transport distances, and a switch to cleaner modes of transport.

We are also participating in the Cross-ministerial Strategic Innovation Promotion Program promoted by Japan's Cabinet Office, and, in collaboration with Lion Corporation, began scheduled smart logistics operations in 2020. In addition, we worked with Costco Wholesale Japan to introduce reusable folding containers and implement their collection and reuse, and with Kirin Beverage Company to launch round-trip transportation between our respective logistics centers in February 2025.

- Kao and Kirin Beverage begin collaboration on transportation between operating sites
  https://www.kao.com/jp/newsroom/news/release/2025/20250122-001/
- Kao and Lion launch a smart logistics initiative
  https://www.kao.com/jp/newsroom/news/release/2020/20201222-002/
- Kao and Costco test the introduction of foldable containers as a reusable packing material
  https://www.kao.com/jp/newsroom/news/release/2022/20220719-001/

CO_2 emissions from transportation (Japan)



* Boundary: Kao Corporation and Kanebo Cosmetics Inc.
* Assurance provided for CO_2 emissions

Efforts during use (Mitigation)

Region: Global
Corresponding strategy: (1) (4)

We offer a wide selection of products that contribute to the reduction of CO_2 emissions during the use stage. Important examples include ultra-concentrated laundry detergents that only require one rinse cycle, and shampoo, body wash and dishwashing detergent that reduce the amount of hot water required for rinsing.

In the laundry detergent segment, we launched Attack Neo in 2009, which reduces the lifecycle CO_2 emissions per wash across the entire product lifecycle by approximately 22%. In 2019, we further introduced *Attack ZERO*, a concentrated liquid clothing detergent that uses Bio IOS, our most advanced detergent base, as its main ingredient. In Japan, the way consumers do their laundry is changing, with washing machines now coming standard with a button for selecting a single rinse cycle.

Furthermore, we offer products that support low-carbon lifestyles such as *Bioré-u the Body Foaming Type*, a body wash that requires less water during bathing, thereby cutting CO_2 emissions by approximately 10%.

Initiatives that help reduce CO_2 emissions throughout society

Region: Global
Corresponding strategy: (4) (5)

We provide Global consumer care products that save water and electricity to help consumers cut CO_2 emissions in daily life. Avoided emission achieved through Global consumer care products sold in 2025 was 1,893 thousand tons-CO_2.

We also offer a wide range of products for Chemical Business that help our corporate customers reduce CO_2 emissions during use. Examples include a low-temperature toner that lowers photocopier power consumption, agents for washing and rinsing steel plates at low temperatures with less fuel consumption, a semiconductor wafer cleanser that requires less ultra-pure water and chemicals, a coating additive that lightens automotive

wire harnesses to improve fuel economy, a material-dispersing additive that supports the performance of fuel-efficient tires, an asphalt modifier utilizing waste PET and a rust preventive cleaning agent that reduce CO_2 emissions from cleaning processes by preventing corrosion during the transportation of machinery parts. Through these various products, we drive emission reduction throughout society. The reduction achieved through products for Chemical Business sold in 2025 reached 2,592 thousand tons.

Efforts in disposal and recycling (Mitigation)

Region: Global
Corresponding strategy: (1) (2)

To achieve both decarbonization and resource circulation, we are developing and advancing the social implementation of a carbonization recycling technology for recycling used baby diapers without incineration. Through carbonization, the volume of diapers is significantly reduced while new value is created by converting used diapers into a valuable carbon resource.

In January 2021, we installed carbonization units at childcare and other facilities in Saijo City, and began demonstration experiments to process used baby diapers into semi-carbonized material. The results have confirmed that the volume can be reduced to approximately 1/20, and we are currently exploring options to utilize the generated semi-carbonized material as an alternative fuel or carbon material.

On October 1, 2025, we installed a second-generation carbonization unit at Kamikatsu Zero Waste Center, where we began demonstration experiments to process used baby diapers brought by local residents. Compared to the first-generation unit installed in Saijo City, this unit is designed to operate with less energy while increasing processing capacity from approximately 30 kg to 50 kg. We are utilizing the generated semi-carbonized material as an alternative to fossil fuels to help reduce CO_2 emissions.

At the same time, we are also promoting the use of biomass-derived plastics and raw materials, which can neutralize CO_2 emissions generated upon disposal.

Examples of major collaboration projects with stakeholders

Region: Global
Corresponding strategy: (2) (3) (4) (5)

Kao is deepening its dialogue and collaboration with diverse stakeholders. By sharing its knowledge with stakeholders and co-creating new value, it is helping to decarbonize society.

[Case study]

- Participation in the Green Value Chain Platform and the Decarbonized Management Network administered by Japan's Ministry of the Environment, offering Kao's scope 3 efforts as an example and contributing to the calculation of scope 3 emissions by corporations.
- DECOKATSU awareness, promoted by the Ministry of the Environment, and its contribution to lifestyle changes among consumers toward decarbonization.
- Participation in the Japan Climate Initiative and the spread of information and exchange of opinions on climate change measures promoted by various constituents beyond the national government.
- Participation as a member of the LCA Working Group organized by the Japan Chemical Industry Association. We have disclosed case studies of our carbon lifecycle analysis efforts and disseminated information to society about the avoided emissions contribution of chemical products to society.
- Participation in the Supply Chain Program run by the CDP for 16 consecutive years. We are contributing to the enhancement of suppliers' awareness and promoting a transformation of the types of action taken by suppliers.

Adaptation efforts

Region: Japan
Corresponding strategy: (6)

Amid ongoing climate change, Kao is strengthening its efforts to adapt by developing products and providing services that reflect the effects of global warming.

Specifically, we are promoting the development of products that protect the skin from the environment, such as UV care products, self-tanning products, repellents, and antiperspirants which are expected to see increased demand as the summer season becomes longer due to rising temperatures.

In addition, we entered the B2B heat care sector to support people working in places with heat-related risks by providing cooling sheets capable of lowering surface skin temperature. These products support comfort and health in everyday life, while also responding to diversifying needs.

We will also expand our UV protection educational initiative for children from Japan and Hong Kong to the rest of Asia. This initiative aims to raise awareness among children, who tend to have greater exposure to UV rays due to more time spent playing and walking outdoors, yet are less likely to use sunscreen. Alongside this effort, we will promote *Bioré Kids Stamp UV,* a product designed to make sun protection fun for children.

In addition, in preparation for natural disasters, Kao operates the website *Sonaeru*, which provides information on products and everyday items that can be used to maintain hygiene during evacuation. This website introduces not only products that are essential for hygiene management, but also practical knowledge and ideas that are useful in times of disaster, providing support for living with peace of mind even in difficult situations.

- Kao makes full-scale entry into the B2B heat care sector through *Bioré no Hiya Support*
  https://www.kao.com/jp/newsroom/news/release/2025/20251210-004/
- *Bioré UV*, the top-selling sunscreen brand for five years running, to ramp up children's UV protection education by expanding its Fun in the Sun Classroom across Asia
  https://www.kao.com/jp/newsroom/news/release/2026/20260217-001/
- *Sonaeru*
  https://www.kao.co.jp/hisaiji/

Communication with consumers Region: Global

Region: Global
Corresponding strategy: (4) (6)

As an initiative to communicate the company's attitude of contributing to the realization of a sustainable society, we have been developing the corporate advertising series "Wastefulness—Mottainai. Never today, nor tomorrow." since 2022. This series of advertisements conveys this message to communicate the innovations and corporate stance rooted in Kao's "ESG-driven *Yoki-Monozukuri*," which contributes to a recycling-oriented society. By focusing on the concept of "waste" in our daily lives and calling for people to be mindful of "Wastefulness—Mottainai. Never today, nor tomorrow," we aim to encourage people to become aware of the smaller types of "waste" in their lives and take action to address them, as well as to spread this movement throughout society.

In 2024, we sent out the message that conserving water and hot water leads to decarbonization through the corporate advertisement "Mottainai" Interview Drainage.

Employees' opinions

Sustainability at the Forefront of PKI Operations

Maria Wilma Jeanette Tuazon
Vice President for Finance and Administration
Pilipinas Kao, Inc.

Sustainability transcends compliance with local and international laws and regulations. It is more than a statement of our corporate commitment and values. More importantly, for Pilipinas Kao, Inc. (PKI), sustainability is a driver of growth, cost control, risk mitigation, value-creation and long-term competitiveness.

From sourcing sustainable raw materials and renewable energy options, waste management to other notable CO_2 reduction efforts, these have become an integral part of PKI's strategic objectives.

In Y2025, an ESG department of PKI was created, headed by PKI's Vice President – Resident Head for Plant Operations. The group aims to promote ESG awareness across all departments in PKI, encourage employee participation and to sufficiently document and monitor the compliance and progress of the company's initiatives, including but not limited to decarbonization.

Road to Decarbonization

With Kao's aim to achieve carbon zero by Y2040, PKI established an equally ambitious roadmap to reduce carbon emission by 55% by Y2030 and ultimately, achieve carbon zero following Kao's internal timeline.

We have identified the use of diesel fuel and our purchased electricity as two of the major sources of carbon emissions in the plant. We recognize that for PKI to achieve the target reduction by Y2030, the use of diesel fuel in our steam boilers must be reduced substantially or a reduction equivalent to about 50% of our current consumption.

As a chemical manufacturing company, our production process requires a considerable amount of steam and heat generation. While the use of diesel fuel in steam boilers offers high efficiency and rapid steam generation, its substantial carbon dioxide and nitrogen oxide emission leaves a lasting impact to the environment. Thus, we are carefully studying a sustainable and viable substitute for diesel fuel that would address carbon emission and at the same time generate some cost savings. We hope to implement the best alternative source before Y2030.

The Philippines generates electricity from a mix of fossil fuels and renewable energy sources with coal as the biggest source of electricity generation. Although the country is among the world leaders in geothermal energy, it continues to be highly dependent on fossil fuels which account for 77%-79% of its total power sources. Renewable energy is limited and is considered a more expensive option, in general. Under the Retail Competition and Open Access (RCOA), PKI can choose the retail electricity supplier (RES). Despite the said option provided by law, the price of renewable energy is not as competitive as the conventional energy sources. While partnership with a local provider for renewable energy supply is underway, for Y2025, PKI committed to purchase International Renewable Energy Certificate (I-REC) equivalent to 100% of our annual power requirement.

Moreover, PKI has so far installed rooftop solar power system within the plant premises which generates about 500 kw of power. The solar panels are strategically located in different areas in the plant. It partially supports the power requirement of the office/administration building. In the long term, we are targeting further increase in the internally generated solar power.

In the last couple of years, a number of energy saving initiatives which translate to reduction in PKI's carbon emissions have been implemented. These include heat recovery in various production processes, steam usage reduction, use of waste oil recovery as steam boiler fuel, reduction of power consumption through the renewal of lighting system and installation of inverter type equipment, to mention a few.

Our sustainability efforts extend beyond the activities within our plant operations. PKI chose to collaborate with selected shipping line for the use of mix biomethane which effectively reduces the emissions generated by the transport of containers carrying our finished products by 15%. It also contributes to better air quality further reducing the following air pollutants: -99% Sox; -92% NOx, -91% PM10. We are optimistic that emission can further be reduced in the coming years.

While the ground-level implementation of decarbonization initiatives is paramount, we are likewise committed to ensuring that resources are used efficiently, prices are competitive, implementation is carried out in accordance with the applicable laws and standards of Kao and reasonable protection and equality are extended to all stakeholders, not only PKI, among others.

At the end of the day, strong sustainability strategies should not be limited to decarbonization efforts or GHG emission reduction, it should be combined with wider goals such as making thoughtful choices for society, making the world healthier and cleaner and walking the right path particularly in doing business and dealing with people.

Stakeholder engagement

Comment on Kao Corporation's Initiatives [Decarbonization & Adaptation]

Norihiro Itsubo
Professor
Faculty of Science and Engineering
Waseda University

Kao's decarbonization initiatives, driven by a long-term vision to achieve carbon zero by 2040 and carbon negative by 2050, stand out thanks to the company's ability to consistently execute measures such as reducing Scope 1 and 2 emissions and accelerating the adoption of renewable energy. In addition, by disclosing the carbon footprint and the amount of emissions that have been avoided, including during the product use and disposal stages, the company is pioneering efforts to reduce emissions throughout the product lifecycle.

What particularly sets the company apart is that it has positioned environmental action as a source of competitiveness, and true to this philosophy, it is gaining a competitive edge through the evolution of its core technologies centered on surfactants. One-rinse detergents and compact products can be quickly rinsed with small amounts of water, reducing water and energy consumption during the use stage. Refillable and replaceable packaging reduces packaging materials while streamlining logistics, demonstrating lifecycle-conscious product design. These are prime examples of enhancing product performance and reducing environmental impact, thereby achieving market competitiveness and decarbonization in tandem.

In this fiscal year, in addition to these product-centered initiatives, Kao demonstrated growing engagement across the supply chain, including reducing Scope 3 emissions from raw material procurement, exploring negative emission technologies, and aligning with European policies to promote environmental value to the international community. In particular, the company's efforts to sustainably procure raw materials and introduce biomass plants reduce carbon emissions upstream while effectively managing natural capital.

Meanwhile, from an LCA perspective, the company is expected to further refine its approach. First, with regard to the reduction of carbon footprint and the amount of emissions that have been avoided, international standards have been issued for the electrical and electronics sector. Based on these standards, it is important to ensure transparent assessments that are internationally consistent. Second, as the application of biomass raw materials becomes more advanced, materiality should be determined based on integrated assessments covering carbon emissions as well as impacts on biodiversity and water resources. Third, quantitative assessment of the entire lifecycle, including trade-offs with mitigation, is also expected for climate adaptation-oriented products.

Overall, Kao's initiatives represent a pioneering approach centered on product innovation that delivers an impact extending to consumer behavior, the global supply chain, and policies. The company is expected to further advance its quantitative and integrated LCA-based assessment, and elevate its environmental action into a source of competitive advantage, thereby creating new value.

[Comment from Kao]

Kao is promoting decarbonization strategies based on scientific evidence to achieve carbon zero by 2040 and carbon negative by 2050. Based on the professor's suggestions, we will continue to enhance our initiatives.

1. Early implementation of negative emissions

By strengthening collaboration with internal and external research institutes, we aim to establish negative emission technologies that are uniquely Kao, including carbon fixation utilizing biomass by-products derived from production processes.

2. Strengthening the supply chain for raw material procurement

In raw material procurement, a key focus area for reducing Scope 3 emissions, we are advancing efforts to sustainably source palm oil, effectively utilize non-edible parts, and build procurement frameworks that contribute to soil carbon sequestration. In addition to enhancing traceability through dialogue with production sites, we will accelerate emission reduction in the procurement phase through co-creation with suppliers.

3. Strategic communication of environmental value in coordination with policy in EMEA (Europe, the Middle East and Africa)

We are promoting environmental technologies originating from Japan globally, including one rinse cycle, compact products, and refillable and replaceable packaging. Through dialogue on local policies and collaboration with industry groups, we will take an active role in ensuring that Kao's environmental technologies are reflected in global standards.

4. Development and promotion of climate adaptation-oriented products and technologies

With a central focus on hygiene, material, and formulation technologies, we are expanding our product lineup to protect people's health and quality of life amid climate change. With a view to expanding into the agriculture, construction, and infrastructure fields, we are considering incorporating adaptation effectiveness as an indicator for LCA. Going forward, we will contribute to social resilience by creating environmental value driven by both mitigation and adaptation.