

**FOR IMMEDIATE RELEASE**

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## Accelerating Efforts to Reach Carbon Zero by 2040 and Carbon Negative by 2050

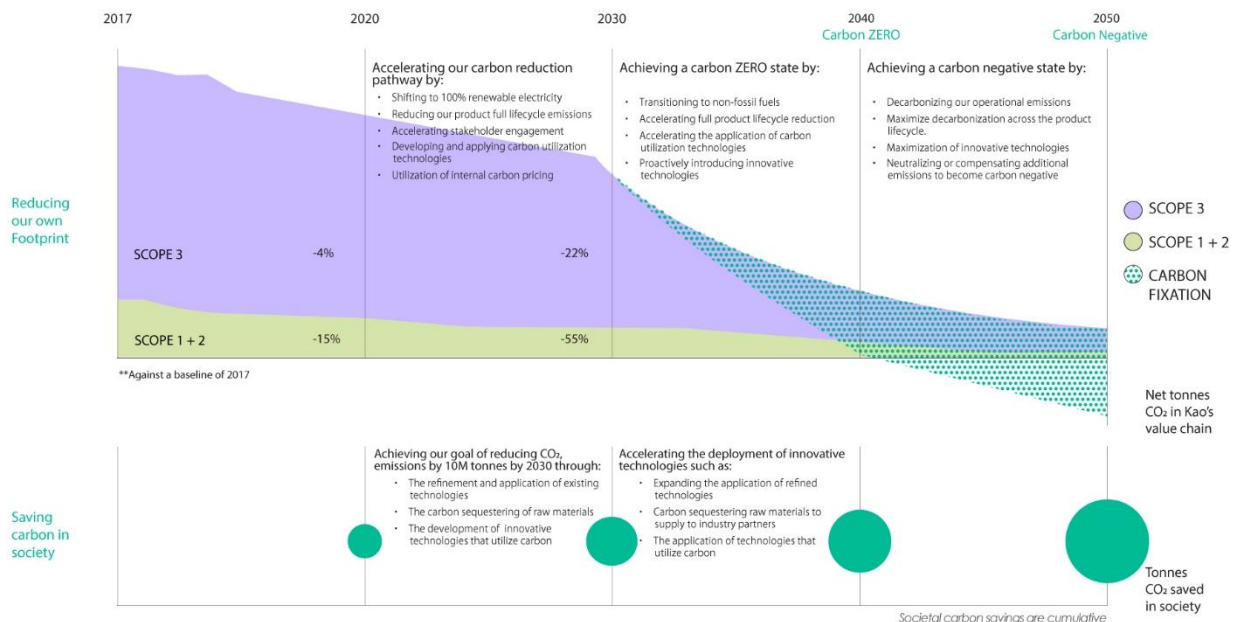
Utilizing Internal Carbon Price System and Promoting New Medium- and Long-term Initiatives toward Reducing Scope 3 CO<sub>2</sub> Emissions

By implementing Innovation in Reduction and Innovation in Recycling with regard to CO<sub>2</sub>, Kao Corporation is aiming to achieve carbon zero by 2040, and carbon negative 2050 in its business activities. In April 2019, Kao established its ESG strategy, the Kirei Lifestyle Plan, which outlines 19 leadership actions, one of which is decarbonization. In 2022, the company took steps including the following actions: used internal carbon price, the cost of which was increased in 2021, and developed products contributing to CO<sub>2</sub> reduction and formulated new medium- and long-term strategies for reducing Scope 3\*<sup>1</sup> emissions related to procurement and use of raw materials. The following is a report of progress made in 2022.

\*1 Greenhouse gas emissions by other than businesses and other entities.

### News Release from May 2021

[Kao Is Aiming to Reduce Its CO<sub>2</sub> Emissions to Zero by 2040, and to Be Carbon Negative by 2050](#)



Kao's decarbonization goals

## Innovation in CO<sub>2</sub> Reduction/Targets to Achieve Carbon Zero by 2040 and the 2022 Results

Continuing the measures implemented in 2021, in 2022 Kao employed renewable energy sources by entering into a corporate Power Purchase Agreement (PPA)<sup>\*2</sup>, adopting photovoltaic power generation facilities and using the non-fossil fuel certificate system<sup>\*3</sup>. Kao also continues to accelerate the use of renewable electricity by approving the company-wide carbon price system—which was raised from ¥3,500/ton-CO<sub>2</sub> to \$168<sup>\*4</sup>/ton-CO<sub>2</sub> in 2021—to introduce a water heat pump system at the Toyohashi Plant (scheduled to be completed in May 2023) and a photovoltaic power generating facility at the Kashima Plant (scheduled to be completed in January 2024).

\*2 Scheme whereby users enter into long-term agreements directly with energy retailers to buy renewable energy.

\*3 The non-fossil fuel energy certificate system provides energy retailers with proof that the portion of energy under the certificate is from renewable energy sources, which allows for the identification of power plants that contribute environmental value.

\*4 Changed from JPY to USD as the baseline currency beginning in February 2023.

- **By 2030, Kao will have reduced Scope 1+2<sup>\*5</sup> CO<sub>2</sub> emissions (absolute value) by 55% (taking 2017 as the base year)**

(Certified by the global Science Based Targets initiative (SBTi) as a 1.5°C target)

**2022 results: 26% (2021: 20%)**

\*5 The volume of greenhouse gases emitted directly by business enterprises and other organizations.

- **By 2030, 100% of the electricity used will be sourced from renewable energy**

(Kao is a member of the international initiative RE100, which aims to power businesses using 100% renewable electricity.)

**2022 results: 49% (2021: 40%)**

Ratio of renewable electricity used in Japan compared to overseas	2022 results: Japan 58%, overseas 38% (2021: Japan 51%, overseas 27%)
Photovoltaic power generating facility for on-site power generation installation sites (as of the end of 2022)	2022 results: 21bases (2021: 17 bases)

- **By 2030, Kao will have reduced CO<sub>2</sub> emissions (absolute value) throughout the product lifecycle<sup>\*6</sup> by 22% (taking 2017 as the base year)**

(Certified by the global Science Based Targets initiative (SBTi) as a 1.5°C target)

**2022 results: 6% (2021: 4%)**

\*6 The volume of CO<sub>2</sub> emissions deriving from raw materials procurement, manufacturing, transportation, product usage, and disposal of used products. This covers Scope 1, Scope 2, and part of Scope 3 emissions.



Share of CO<sub>2</sub> emissions accounted for by each state of the product lifecycle for Kao product

Looking at different stages of the product lifecycle, procurement of raw materials and product use generate a high percentage of CO<sub>2</sub> emissions. To reduce emissions, Kao will continue decreasing its use of raw materials and use recycled plastics when procuring raw materials, developing water-saving products to reduce business partners and consumers' water use-related CO<sub>2</sub> emissions, and using plant-based and other natural raw materials and cutting down on the use of plastics for packaging at the disposal and recycling stage.

Kao is taking steps to reduce CO<sub>2</sub> emissions, which are especially high at the raw materials procurement and product use stages. In 2022, 69% of PET plastic containers sold in Japan used recycled PET plastics as material at the raw materials procurement stage. At the product use stage, Kao has introduced many products aiming to reduce CO<sub>2</sub> through water saving, for example concentrated liquid laundry detergent *Attack ZERO*, which requires only one rinse cycle, quick-rinsing *CuCute* dishwashing liquid and water-saving *Bioré u The Body* foam body wash spread by hand.

Kao has also started new projects aimed at reducing CO<sub>2</sub> over the medium to long term. In the area of procurement of raw materials, it is a founding member, together with Genomatica and Unilever, leading companies in sustainable materials, of a venture business set up in the United States to supply an alternative to palm oil to the market. Where disposal and recycling are concerned, Kao has been delegated by New Energy and Industrial Technology Development Organization (NEDO) to start a study on a manufacturing model for utilizing cassava residue.

**News Release from September 2022**

[Kao Delegated by NEDO to Begin a Study on a Manufacturing Model for Utilizing Cassava Residue](#)

**News Release from September 2022**

[Kao Joins Geno as Founding Member of \\$120M+\\*<sup>1</sup> Venture to Globally Scale Palm Oil Alternative](#)

- Amount of CO<sub>2</sub> emissions reduced as a whole by using Kao's products and services: 10 million tons by 2030

2022 results: 4,230,000 tons (2021: 4,564,000 tons)

Kao's Consumer Products Business and its Chemical Business are working to develop products, services and technologies that will contribute to a sustainable future. The company has also introduced an index comparing reduction of CO<sub>2</sub> emissions (reduction contribution amount) over product lifecycles between new and existing products and services. Contributing to decarbonization, the Consumer Products Business reduced emissions by 1,936,000 tons by adopting containers using less plastic and offering water-saving products, while the Chemical Business cut emissions by 2,294,000 tons through the use of plasticizers for wire harnesses and solvents for fuel-efficient tires.

## **CO<sub>2</sub> Related Innovation in Recycling/Targets to Achieve Carbon Negative by 2050 and the 2022 Results**

Kao is continuing its efforts to develop technologies using CO<sub>2</sub> as a raw material and implement emissions-reduction measures by 2030.

The Kao Group adopted the Kao Group Mid-term Plan 2025 (K25) in 2021, promoting the vision of “protecting future lives” and “sustainability as the only path.” The Kao Group will continue to integrate its ESG strategy into its management practices, develop its business, provide better products and services for consumers and society, and work toward its purpose, “to realize a Kirei world in which all life lives in harmony.”

### **About the Kirei Lifestyle Plan**

Over the past 130 years, Kao has worked to improve people's lives and help them realize more sustainable lifestyles—a Kirei Lifestyle. The Japanese word ‘kirei’ describes something that is clean, well-ordered and beautiful, all at the same time. The Kao Group established its ESG strategy, the Kirei Lifestyle Plan in April 2019, which is designed to deliver the vision of a gentler and more sustainable way of living. By 2030, Kao aims to empower at least 1 billion people, to enjoy more beautiful lives and have 100% of its products leave a full lifecycle environmental footprint that science says our natural world can safely absorb. For more information, please click [here](#).

### **About Kao**

Kao creates high-value-added products and services that provide care and enrichment for the life of all people and the planet. Through its portfolio of over 20 leading brands such as *Attack*, *Bioré*, *Goldwell*, *Jergens*, *John Frieda*, *Kanebo*, *Laurier*, *Merries*, and *Molton Brown*, Kao is part of the everyday lives of people in Asia, Oceania, North America, and Europe. Combined with its chemical business, which contributes to a wide range of industries, Kao generates about 1,550 billion yen in annual sales. Kao employs about 35,400 people worldwide and has 136 years of history in innovation. Please visit [the Kao Group website](#) for updated information.

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**Related Information**

- [Kao launches new ESG Strategy “Kirei Lifestyle Plan” to support consumer lifestyle changes](#)
- [Kao’s New Challenges for the Future: Accelerating Purposeful Business Commitment with ESG](#)
- [Kao sustainability website](#)