Decarbonization 102-15, 103-1

We will work toward the goal of reducing CO_2 emissions to zero by 2040, and becoming carbon negative by 2050 to combat global warming. While Kao aims to reduce emissions in our own business activities, we also realize that offering more sustainable products to our customers and consumers is necessary to reduce their carbon footprint as well. Through technologies such as carbon fixation, to developing products that contribute to a more sustainable product cycle, we will continue to take an active role in reducing global warming through innovation. We take this responsibility seriously, and will offer products and services that contribute to realizing a decarbonized society.

ESG Keyword | Realization of the Paris Agreement goals | Scenario analysis | Mitigation and adaptation | Support for TCFD | "eco together" | SBT | CDP evaluation | Use of renewable energy (photovoltaic power, etc.) | Reducing CO_2 emissions throughout the product lifecycle

Kao's creating value to address social issues

Social issues we are aware of

Today, the vision for society is to realize net zero emissions of greenhouse gases by 2050, so that the average rise in global temperature can be kept to within 1.5°C higher than pre-industrial revolution levels. However, according to the World Meteorological Organization (WMO), as of 2018 average global temperatures were already approximately 1.0°C higher than prior to the industrial revolution, and the 2018 Intergovernmental Panel on Climate Change (IPCC)*1 Special Report on Global Warming of 1.5°C noted that, if the current situation continues, there is a possibility that average global temperatures 1.5°C higher than pre industrial revolution levels could be reached by 2030.

In recent years, countries and regions around the world, including the European Union (EU), have been issuing carbon neutrality declarations, and in October 2020 Japan also announced that it would seek to become carbon neutral by 2050. In addition, many local governments within Japan have been declaring a climate emergency in relation to the crisis posed by climate change, and large numbers of business enterprises have announced that they are aiming to realize net zero emissions. There have also been movements demanding action on climate change, such as Friday For Future, in which young people—who represent the future—have played a key role.

Global warming has been accompanied by an increase in the scale of damage caused by localized torrential rain and typhoons, frequent forest fires, the melting of the Siberian permafrost and other climatic abnormalities. In some parts of the world, it has become common for daytime maximum temperatures to exceed 40°C for several days in a row, leading to an increase in the number of people affected by heatstroke, with deaths being reported. It has also been suggested that destruction of forests and rising temperatures will create enhanced risk of new types of infectious disease. These threats can be expected to grow even more serious in the future.

A wide range of response strategies are needed, including not only the mitigation of rising temperatures, but also making social infrastructure more resilient, so as to be able to cope with rising temperatures and changing weather patterns, and the provision of products and services tailored to suit the changes in consumers' lifestyles.

For Kao, forest commodities such as palm oil and paper and paper pulp constitute very important raw materials. In contemporary society, there is an accelerating trend toward the destruction of natural forests and creation of new plantations in order to increase supply of these materials. Greenhouse gas emissions deriving from forest destruction and changes in land use account for a significant percentage—6.5%—of total global emissions*2. Furthermore, we recognize that degradation of biodiversity and issues relating to the human rights of local workers constitute significant risks in relation to sustainable development.

*1 IPCC
Intergovernmental Panel on Climate Change
An organization was established by the United Nations Environment Programme and the World Meteorological Organization in 1988 for the purpose of conducting comprehensive evaluations from scientific, technical and socio-economic perspectives regarding climate change, its impact, adaptation and mitigation measures.
*2 World Resources Institute, World Greenhouses Gas Emissions 2016

Kao's creating value

Global warming is a problem that affects the whole of society. In response to this issue, Kao has proactively set itself targets, and by actively developing applications for cutting-edge technologies and other new technologies, both within Kao and in the wider society, we aim to demonstrate solutions to the problem of global warming. In order to reduce greenhouse gas emissions associated with our business activities, we are improving the energy efficiency of our worksites and shifting over to green energy use, and we are continuing to implement initiatives aimed at reducing emissions in collaboration with our stakeholders, by cutting emissions at every stage in the product lifecycle, from raw materials procurement through to product use, disposal and recycling. We are also working actively to provide products and services that contribute toward reducing greenhouse gas emissions associated with product use.

By providing environmentally friendly products that take account of transitional and physical risk, and products suited to the changes in consumer lifestyles that have resulted from climate change, we are making a positive contribution toward enriching people's lives and toward the building of a sustainable society.

Decarbonization 102-12, 102-15, 103-1, 103-2

DECARBON -IZATION

Contributions to the SDGs

Risks and opportunities related to realization of What Kao Aims to Be by 2030

We have implemented qualitative and quantitative evaluation of the risks and opportunities relating to the realization of our vision of where we want our company to be by 2030, focusing on the 2°C scenario*1and 4°C scenario*2, and we have identified the key items that could have a major impact on our business.

The results of this evaluation confirmed that some of the most important risks included the potential for the adoption and strengthening of carbon taxes, increases in the cost of petroleum-derived raw materials due to rises in the crude oil price, and an increased risk of flood damage due to the trend toward increased short-term precipitation, etc. We also identified a number of opportunities, including increased demand for summer-use products such as anti-perspirants due to rising temperatures, and changes in consumer behavior such as the widespread trend toward ethical consumption.

*1 2°C scenario
This is equivalent to the IEA's 2DS scenario or the IPCC's RCP 2.6 scenario, etc. It refers to the economic measures that would be needed in order to keep the average global temperature rise down to less than 2°C compared to the situation prior to the Industrial Revolution, and to the environmental damage that is expected to result from such a rise in temperature.

*2 4°C scenario
This is equivalent to the IEA's Current Policy Scenario or the IPCC's RCP 8.5 scenario, etc. It refers to the economic measures that would be needed in order to keep the average global temperature rise down to less than 4°C compared to the situation prior to the Industrial Revolution, and to the environmental damage, etc. that is expected to result from such a rise in temperature.

Policies

Climate change poses a major risk to the realization of an enriched Kirei Lifestyle, both now and in the future. The Kao Way enunciates our mission to strive for the wholehearted satisfaction and enrichment of the lives of people globally and to contribute to the sustainability of society, and we are actively implementing initiatives to both mitigate and adapt to global warming in relation to every aspect of our business strategy.

In our Basic Principle and Basic Policies on Environment and Safety, we undertake to "Assess environment and safety aspects throughout the entire lifecycle of the products, from manufacture through disposal, when developing products and technologies."

Furthermore, the Kao Responsible Care (RC) Policy contains the following declaration: "We shall strive to continue to reduce the environmental impact of our business operations by promoting reduction of uses of resources such as water and energy."

Our Environmental Statement embodies our commitment to ensuring that "Kao products utilize original Kao-developed technologies to minimize the impact they have on the environment, not just in the manufacturing process, but in the daily life of the customers who use them. From materials procurement and manufacturing, to distribution, sales, use and final disposal, we want to engage in 'eco together' with stakeholders and consumers worldwide."

Furthermore, in regard to palm oil and paper and paper pulp, we have formulated the Guidelines for Sustainable Procurement of Raw Materials, and we are aiming toward the reduction of forest destruction to zero by 2020 in the areas where these raw materials are produced.

In line with these policies, as a step toward minimizing CO_2 emissions into the atmosphere, we are working not only to cut emissions from our own worksites, but also to reduce CO_2 emissions throughout the entire product lifecycle. We also provide products and services that contribute toward reducing other companies' CO_2 emissions. In addition, as a recycling initiative to reduce the amount of CO_2 in the atmosphere, we are developing technology that uses CO_2 from the atmosphere as a raw material, and we are working to realize carbon fixation through tree-planting, etc. Through these activities, we aim to reduce our net carbon emissions to zero, and become carbon negative. Furthermore, we are accelerating the provision of products and services tailored to the changing climate, with its rising temperatures, etc.

PDF ➡ p. 79 Making thoughtful choices for society > Responsibly sourced raw materials

➡ Basic Principle and Basic Policies on Environment and Safety
www.kao.com/content/dam/sites/kao/www-kao-com/global/en/sustainability/pdf/environment-safety-principle-policies.pdf

➡ Kao Responsible Care Policy
www.kao.com/content/dam/sites/kao/www-kao-com/global/en/sustainability/pdf/responsible-care-policy.pdf

➡ Kao Environmental Statement
www.kao.com/content/dam/sites/kao/www-kao-com/global/en/sustainability/pdf/environmental-statement.pdf

➡ Guidelines for Sustainable Procurement of Raw Materials
www.kao.com/content/dam/sites/kao/www-kao-com/global/en/sustainability/pdf/procurement-raw-materials-guidelines.pdf

Decarbonization 102-12, 102-43, 103-2, 404-2

DECARBON -IZATION

Education and promotion

Our employees are not only in the position to develop and supply products, but once they leave the company, they are consumers for the rest of their lives and are the ones who select those products. We thus recognize the importance of giving our employees the opportunity to learn about climate change through various programs and to actively engage in decarbonization activities of their own accord.

Starting in 2020, we have begun making and disseminating educational videos for internal use that are specific to the themes of the Kirei Lifestyle Plan (KLP). In 2020 we disseminated videos on the topics of decarbonization and life-cycle assessment (LCA), and in the future we intend to continue spreading awareness of KLP activities among our employees by developing more video content relating to other KLP objectives.

Collaboration and engagement with stakeholders

In line with the "eco together" motto of the Kao Environmental Statement, we are working together with a wide range of stakeholders to promote activities aimed at realizing decarbonization. We are also implementing education about decarbonization and working to spread awareness of our initiatives.

"eco together" with consumers / customers

As the product usage stage accounts for around 40% of total product lifecycle CO_2 emissions, raising consumers' awareness is extremely important. For example, even if a consumer buys single-rinse laundry detergent, if the consumer sets the washing machine to do two rinses, then there will be no reduction in CO_2 emissions. It is thus very important for us to accurately communicate the environmental value that Kao products can provide and encourage consumers to use them properly. By organizing a wide range of different events, we aim to get across the importance of CO_2 emission reduction and the environmental value of Kao's activities and products.

➡ p. 62 Making thoughtful choices for society > Sustainable lifestyle promotion: Collaboration and engagement with stakeholders

"eco together" with business partners

In order to help our customers realize a Kirei Lifestyle, we continue to implement heartfelt *Yoki-Monozukuri* manufacturing and deliver the resulting products to our customers. However, this is not something that can be achieved by Kao acting alone. We believe that it is important to share our vision with the business partners that we collaborate with at every stage from raw materials procurement through production to delivery and sales, so that we can take action together, and we have established a number of different venues for sharing information with them. As the raw materials stage accounts for around 40% of total product lifecycle CO_2 emissions, we view collaboration with raw materials suppliers as being particularly important.

We support the aims of the Task Force on Climate-Related Financial Disclosures (TCFD), and we are actively implementing information disclosure relating to climate change, and engaging in dialogue with investors.

TCFD TASK FORCE ON CLIMATE-RELATED FINANCIAL DISCLOSURES

"eco together" with society

We proactively participate in activities organized by the central government and by the United Nations, local government authorities, NPOs, etc., where we provide information about Kao technologies and exchange opinions with other participants. In order to realize a decarbonized society, reducing the CO_2 emissions associated with electric energy generation is a particularly important approach, and we are working actively to disseminate information about our activities in this area.

Decarbonization 102-20, 103-2

DECARBON -IZATION

Framework

Risk management in relation to climate change issues is carried out by the Internal Control Committee and opportunity management is carried out by the ESG Committee, under the supervision of the Board of Directors. These committees are headed by the President and Chief Executive Officer.

The Responsible Care Promotion Committee, which manages policy / regulatory regime and technology risks, and the Risk and Crisis Management Committee, which manages market, reputational and acute risks, are under the Internal Control Committee. These committees are headed by the executive officer in charge of the Corporate Strategy.

The Responsible Care Department of Corporate Strategy Division acts as the Responsible Care Promotion Committee Secretariat while the Crisis Management Department of Corporate Strategy Division acts as the Risk and Crisis Management Committee Secretariat.

The Responsible Care Promotion Committee meets twice a year to report on and discuss compliance with laws and regulations, status of CO_2 reduction and other matters. It also sets targets for the following year. The Responsible Care Promotion Committee conducts monthly checks on compliance with laws and regulations, monitors CO_2 emission and water use, mainly at plants which have a large impact, and keeps abreast of the amount of chemical substances in wastewater, reporting on these and other matters to the head of the committee, committee members, members of the Internal Control Committee, auditors and others. The Risk and Crisis Management Committee which manages natural disaster including caused by climate change and reputational risks, meets four times a year.

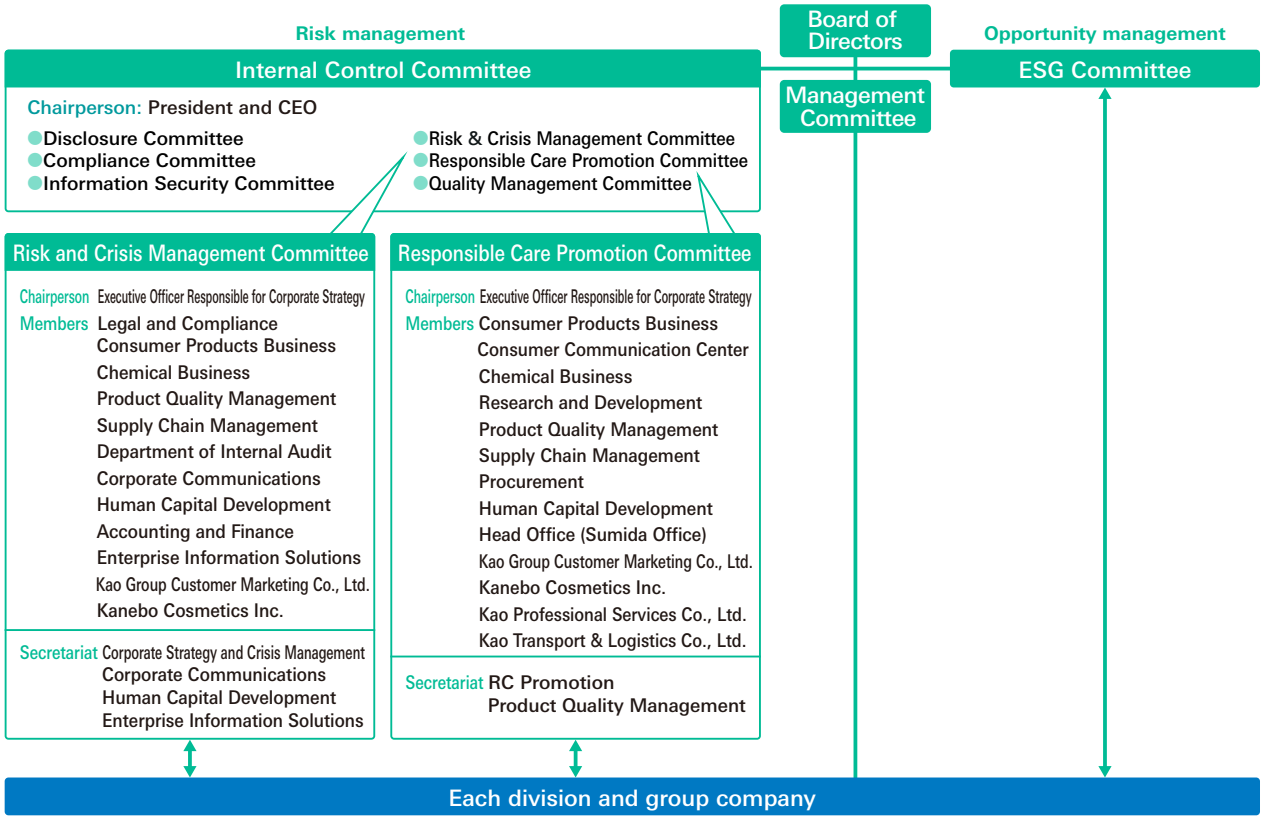
The Internal Control Committee meets one or more times a year, receiving activity reports from the Responsible Care Promotion Committee and the Risk and Crisis Management Committee which it oversees and auditing the activities of the two committees.

Opportunity management relating to climate change issues is handled by the ESG Committee, which meets four times a year. Committee members are the persons in charge of the Business, Sales, R&D, SCM and other divisions, an arrangement which connects divisions horizontally. The Internal Control Committee, and the ESG Committee which it supervises, discuss climate change and environmental issues as well as social and governance issues.

The committee reports on its activities to the Board of Directors one or more times a year and is audited by the Board of Directors.

PDF ➡ p. 18 ESG promotion structure

Decarbonization promotion structure



* As of December 2020

Decarbonization 103-2, 103-3, 302-1, 302-3, 302-4, 302-5, 305-1, 305-2, 305-3, 305-4, 305-5

Mid- to long-term targets and performance

Kao aims to be carbon zero by 2040, and carbon negative by 2050, and we are accelerating our activities to achieve these goals. We will also be maximizing our contribution toward reducing greenhouse gas emissions throughout society as a whole.

Targets for 2020

In 2013, we set the 2020 targets for energy consumption and greenhouse gas emissions pertaining to all Kao Group sites and have aimed to achieve a standard 1% reduction each year. In 2009, we set the 2020 reduction targets for CO_2 emissions pertaining to the entire product lifecycle for group companies in Japan, based on the national reduction targets set by the Japanese government at the time (all of the above targets were calculated on a per unit of sales basis).

Targets for energy and greenhouse gas emissions (by comparison with 2005)

Index	Scope	2020 targets
Energy consumption	All Kao Group sites	35% reduction
GHG emissions		35% reduction
CO_2 emissions	Across the entire product lifecycle for the Kao Group in Japan	35% reduction

2025 mid-term targets

Index	Scope	2025 targets
Purchased power	All Kao Group sites	100% renewable sources

2030 long-term targets

We aim to enable society as a whole to reduce greenhouse gas emissions by the equivalent of 10 million tons of CO_2 through the provision of Kao Group products and services.

Index	Scope	2030 targets
GHG emissions (absolute quantity)	Across the entire product lifecycle for the Kao Group	22% reduction (Compared to 2017)*
	All Kao Group sites	55% reduction (Compared to 2017)*
Energy consumption (Per sales unit)	All Kao Group sites	1% reduction yearly (year-on-year, from 2021)
Electric power usage	All Kao Group sites	100% renewable sources

RE100 | CLIMATE GROUP | CDP

Anticipated benefits from achieving mid- to long-term targets

Business impacts

Achieving targets (for energy consumption and greenhouse gas emissions) for all sites in the group leads to higher profits as they contribute to the reduction of business activity operating costs. Additionally, the reduction of CO_2 emissions across product lifecycles can be achieved by reducing raw material use and increasing sales of products with low CO_2 emissions during usage, leading to reduced operating costs and sales growth.

As renewable energy generating costs have been falling steadily for the past few years, switching over to having 100% of the electricity that we purchase generated using renewable energy can be expected to result in reduced electricity purchase costs in the future.

If no action is taken to reduce usage, then by 2030 our overall CO_2 emissions (Scope 1+2) are forecast to rise to a level that is 1.67 times higher than in 2017. However, we have continued to implement initiatives to address this issue. We adopted an internal carbon pricing system in 2006 in order to control CO_2 emissions (Scope 1+2), and have been coordinating the operation of this system with our business activities for 13 years, and we set ourselves the target of reducing CO_2 emissions by 55% by 2030 (compared to 2017). If carbon taxes equivalent to 89USD/t-CO_2* are adopted in 2030, then assuming that we achieve the target outlined above, our carbon tax burden will be 4.3 billion yen, which is 11.5 billion yen less than it would be if we failed to take any action.

* Kao estimate based on the International Energy Agency (IEA)'s World Energy Outlook 2018

Social impacts

By achieving the above goals, we can reduce greenhouse gas emissions and contribute toward mitigating global warming. Additionally, products with low CO_2 emissions during usage can contribute to reduction in consumer spending because they consume less energy and water. Furthermore, they are also effective in reducing the burden of social infrastructure maintenance and renewal concerning energy, water and sewage systems.

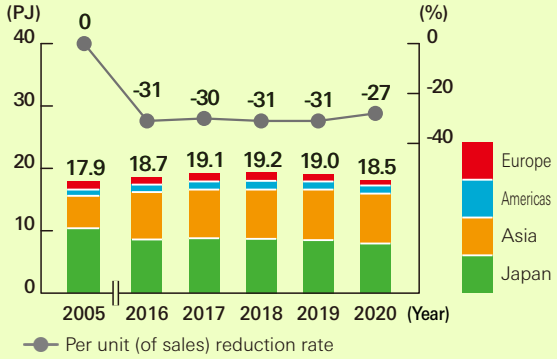
Decarbonization 103-2, 103-3, 302-1, 302-3, 302-4, 302-5, 305-1, 305-2, 305-3, 305-4, 305-5

DECARBON -IZATION

Performance in 2020

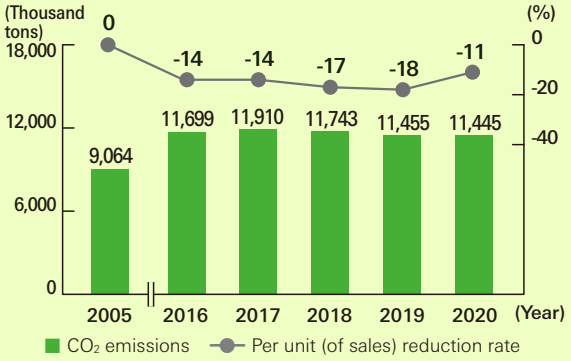
Performance*

Energy consumption☑ (all sites)



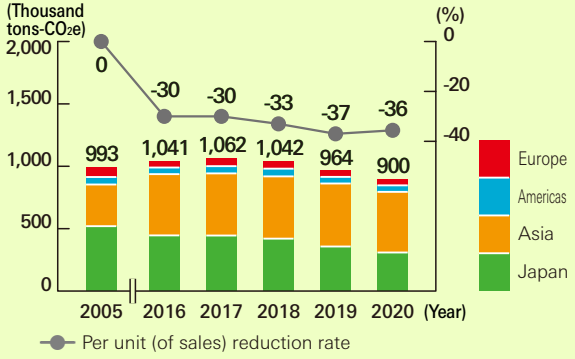
* Boundary: All Kao Group sites including company cars in Japan
* Assurance provided for energy consumption figures

CO_2 emissions across the entire product lifecycle☑ (Kao Group)



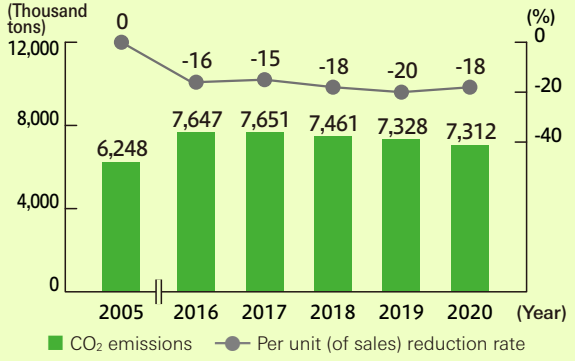
* "CO_2 emissions across the product lifecycle" is defined as the combined total for the amount of lifecycle emissions of individual products, excluding emissions during manufacturing and distribution, multiplied by their annual sales quantity and the amount of emissions from the group's manufacturing and distribution processes. However, this amount does not include emissions related to the use and disposal of Chemical products.
* Assurance provided for CO_2 emissions figures and per unit (of sales) reduction rates

GHG emissions☑ (all sites)



* Boundary: All Kao Group sites 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

CO_2 emissions across the entire product lifecycle☑ (Kao Group in Japan)



* "CO_2 emissions across the product lifecycle" is defined as the combined total for the amount of lifecycle emissions of individual products, excluding emissions during manufacturing and distribution, multiplied by their annual sales quantity and the amount of emissions from the group's manufacturing and distribution processes. However, this amount does not include emissions related to the use and disposal of Chemical products.
* Assurance provided for CO_2 emissions figures and per unit (of sales) reduction rates

* Calculated on a per unit of sales basis, based on Japanese GAAP for 2005, and on International Financial Reporting Standards (IFRS) for other years.

Contribution to emissions reduction

The amount of emission reductions in Kao's business operations as a whole totaled 4,022 thousand tons. Contribution to emissions reduction represents the amount of CO_2 emissions reductions realized by society as a whole through Kao products.

Amortization of carbon credits

The total amount of carbon credits amortized by Kao came to 27 thousand tons.

Reviews of performance

CO_2 emissions across the entire product lifecycle decreased by 10 thousand tons over the previous year, representing a fall of 4% compared to 2017. The per unit (of sales) reduction rate fell by 7 percentage points to 11% (2005 baseline) compared to the previous year. CO_2 emissions across the entire product lifecycle in Japan were reduced by 16 thousand tons over the previous year, but the per unit (of sales) reduction rate fell by 2 percentage points to 18% (2005 baseline) over the previous year, and as result we failed to achieve our target for 2020 of reducing emissions by 35%. The key factors here were the fall in sales due to the spread of the COVID-19 pandemic, counterbalanced by the increase in sales of products with relatively high CO_2 emissions per unit of sales, such as hand soap and laundry detergents.

The energy consumption per unit of sales reduction rate at all Kao Group sites was lower than in the previous year, at 27%, and we did not achieve the reduction target of 35%. Greenhouse gas emissions fell by 15% compared to 2017, but on a per unit of sales basis the reduction rate fell to 36%. Nevertheless, the 2020 target of 35% was achieved. Renewable energy accounted for 28% of all electricity used by the Kao Group as a whole, and 38% of all electricity purchased by the Kao Group as a whole (53% for the Kao Group in Japan).

We offer a wide selection of household products such as water-saving products that reduce CO_2 emissions during the use stage, and also provide various industrial-use products that do the same. We will further expand our range of products that reduce water / hot water and power consumption in the use stage, which contributes a large portion of total lifecycle emissions, and take steps such as reducing the amount of raw materials used and switching raw materials to those made from renewable sources.

Decarbonization 103-2, 103-3, 302-1, 302-3, 302-4, 302-5, 305-1, 305-2, 305-3, 305-4, 305-5

DECARBON -IZATION

Scope 1 CO_2 emissions☑ (Thousand tons-CO_2e)

	2018	2019	2020
Japan	263	259	242
Asia	291	291	278
Americas	49	46	45
Europe	49	48	51
Total	652	644	616

Scope 2 CO_2 emissions☑ (Thousand tons-CO_2e)

	2018	2019	2020
Japan	157	98	68
Asia	207	214	208
Americas	14	6	6
Europe	13	2	2
Total	390	320	283

* 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.
* Emission factors
  Scope 1: In principle, uses factors defined in the Act on Promotion of Global Warming Countermeasures
  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 International Energy Agency (IEA) is used.

Purchased electricity, steam, etc. (terajoules)

	2018	2019	2020
Electricity	7,663	7,923	7,952
Heat	0	0	0
Steam	140	149	177
Cooling	0	0	0

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

Fuel consumption by fuel type (terajoules)

	2018	2019	2020
Natural gas	9,123	8,936	8,579
Diesel oil	1,331	1,405	1,334
Gasoline	135	123	99
Other	145	142	132
Waste vegetable oil (heat recovery)	553	493	347

Scope 3 CO_2 emissions (Thousand tons-CO_2e)

	2018	2019	2020
1. Purchased goods and services☑	4,430	4,295	4,206
2. Capital goods	269	342	259
3. Fuel- and energy-related activities (not included in scope 1 or scope 2)	27	30	59
4. Upstream transportation and distribution☑	253	254	249
5. Waste generated in operations	60	56	65
6. Business travel	4	4	4
7. Employee commuting	21	17	18
8. Upstream leased assets	0	0	0
9. Downstream transportation and distribution	106	107	111
10. Processing of sold products	119	111	116
11. Use of sold products☑	4,570	4,510	4,653
12. End-of-life treatment of sold products☑	1,452	1,432	1,438
13. Downstream leased assets	0	0	0
14. Franchises	0	0	0
15. Investments	8	7	6
Total	11,319	11,165	11,184

* 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.

CDP* evaluation

Our initiatives for the environment have been highly rated by the CDP. In 2020, Kao became one of the first companies in Japan to obtain an A score for all of Climate Change, Water Security and Forests. Only two companies in Japan, and ten worldwide, were given a "Triple A" score in 2020.

* CDP
  CDP is a London-based NGO operated by institutional investors, and it motivates business enterprises to disclose information related to climate change, water and forests.

CDP evaluation

Area	2016	2017	2018	2019	2020
Climate Change	A-	A-	A-	A	A
Forests (Palm Oil / Timber)	A- / A-	A- / A-	A- / A-	A- / A-	A / A-
Water Security	A	A-	A	A	A
Supplier Engagement	B	A	A	A	A

CDP DISCLOSURE INSIGHT ACTION A LIST 2020 CLIMATE FORESTS WATER

➡ CDP results
CDP 2020 Climate Change
www.kao.com/content/dam/sites/kao/www-kao-com/global/en/sustainability/pdf/cdp2020-001.pdf
CDP 2020 Forests
www.kao.com/content/dam/sites/kao/www-kao-com/global/en/sustainability/pdf/cdp2020-003.pdf
CDO 2020 Water Security
www.kao.com/content/dam/sites/kao/www-kao-com/global/en/sustainability/pdf/cdp2020-002.pdf

Decarbonization 102-12, 102-43, 308-2

DECARBON -IZATION

Our initiatives

Efforts in raw materials procurement

Mitigation

Vendor Summit

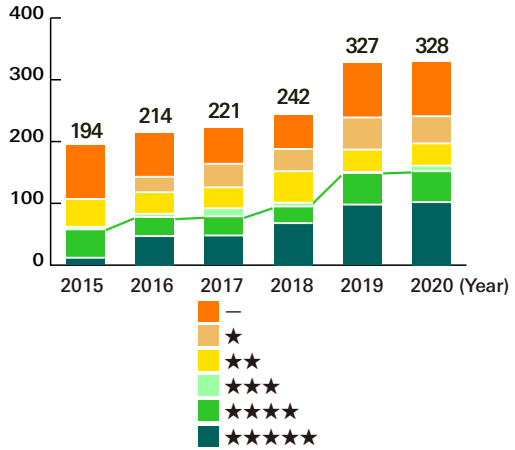
We hold the Kao Vendor Summit, which important suppliers are invited to attend, where we give presentations on our ESG-related initiatives, including decarbonization, and request suppliers' collaboration. The Kao Vendor Summit was not held in 2020 due to the COVID-19 pandemic.

CDP Supply Chain Program (Climate Change)

In 2009, we became the first Japanese company to participate in the CDP Supply Chain Program. From 2017, in expectation that our suppliers will become more active toward promoting CO_2 reduction activities, we have been evaluating CO_2 reduction activities and have been working to provide the results of these evaluations back to our suppliers.

The 2020 survey results showed that the number of suppliers obtaining an evaluation of at least "four stars" had increased by three compared to the previous year, indicating that the overall supplier activity level had risen. At the same time, in regard to the roughly 30% of suppliers who failed to respond to the survey, we are working on engagement to encourage these suppliers to respond.

Supplier activity level (Climate Change)

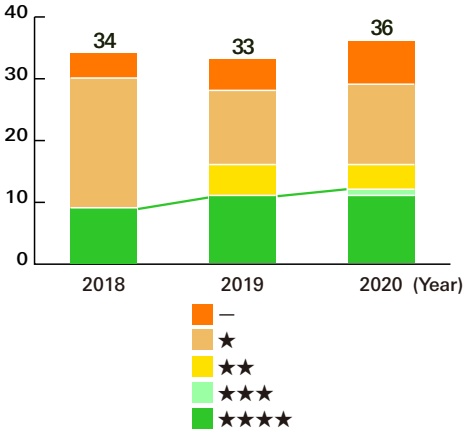


CDP Supply Chain Program (Forests)

We have participated in the CDP "Forest" Supply Chain Program since 2018. We expect suppliers providing palm oil, paper or paper pulp to begin sustainable and responsible procurement, which includes procurement preventing deforestation. We assess forest activity status and provide suppliers with feedback on the results of this assessment.

The 2020 survey results showed that the number of suppliers obtaining an evaluation of at least "three stars" had increased by one compared to the previous year, indicating that the overall supplier activity level had risen. At the same time, in regard to the roughly 15% of suppliers who failed to respond to the survey, we are working on engagement to encourage these suppliers to respond.

Supplier activity level (Forests)



Decarbonization 102-12, 102-43, 308-2

DECARBON -IZATION

Low-carbon raw materials procurement

In collaboration with suppliers, we are working actively to adopt raw materials with lower CO_2 emissions by using plant-based and recycled plastics and thinner cardboard. This can make a substantial contribution to reducing CO_2 emissions not only in the manufacturing process but also at the time of disposal and recycling.

Furthermore, by optimizing the volume and frequency of raw materials deliveries, we are reducing CO_2 emissions in the transport of raw materials.

More precise calculation of the environmental burden of raw materials for calculating product lifecycle CO_2 emissions (LC-CO_2)

With the cooperation of those suppliers from which we purchase raw materials that have particularly high CO_2 emissions, we are collecting data on CO_2 emissions produced in the procurement and processing of raw materials. This measure only improves the accuracy of our CO_2 emission calculations during the raw material procurement process, but also allows us to evaluate the CO_2 emissions reduction initiatives adopted by suppliers, which can then be reflected in lifecycle CO_2 emissions reductions of Kao products.

Kao received the Industrial Science and Technology Policy and Environment Bureau Director-General's Award (Ministry of Economy, Trade and Industry), the highest award, at the Life Cycle Assessment Society of Japan (LCA) Awards, in recognition of Kao's continued initiatives in relation to suppliers.

PDF ➡ p. 79 Making thoughtful choices for society > Responsibly sourced raw materials

Kao received an award from the JLCA.

Adaptation

CDP Supply Chain Program (Water)

Due to climate change, extreme weather is occurring in different places. For instance, there is an increase in short-term, localized torrential heavy rain. Reflecting our focus on strengthening suppliers' awareness of the need to put water risk systems in place in relation to flooding of rivers and sewage systems caused by heavy rain, and on getting them to take appropriate action, we have been participating in the CDP "Water" Supply Chain Program since 2015.

PDF ➡ p. 122 Making the world healthier & cleaner > Water conservation

Decarbonization 302-4

Developmental efforts

Mitigation

When deciding to launch new and improved products, we verify that the products satisfy the environmental standards outlined by the Design for Environment Guidelines. We also evaluate CO_2 emissions over the entire product lifecycle using the same standards. The results of these evaluations are not only used to determine product launches, but are also incorporated in future product development.

In particular, with regard to products that make use of water during the usage process, we recognize that both the water purification plants that provide drinking water for household use and the wastewater treatment plants that process households' waste water use a great deal of energy and generated CO_2 emissions, and so we are working actively to develop water-saving products. Furthermore, products such as shampoo that require the use of hot water during the usage process also involve the generation of CO_2 emissions in relation to the heating of the water, so making products that use hot water into water-saving products can be very beneficial.

In addition, Kao aims to achieve "Maximum with Minimum," or in other words achieving the highest possible quality with the minimum possible raw materials. Based on this approach, we developed the Bio IOS surfactant. This surfactant is used in our *Attack ZERO* laundry detergent product.

Kao has also been working on the development of manufacturing technology for a new type of photovoltaic cell which is expected to be highly efficient, in collaboration with the Research Center for Advanced Science and Technology, The University of Tokyo, and with Kyushu Institute of Technology.

We are also undertaking technology development aimed at using CO_2 as a raw material for Kao products.

➡ p. 122 Making the world healthier & cleaner > Water conservation

➡ Kao is developing a new type of photovoltaic cell that is expected to provide high energy conversion efficiency, through collaborative research with The University of Tokyo and Kyushu Institute of Technology
www.kao.com/jp/corporate/news/rd/2019/20190111-001/ (Japanese)

Adaptation

As global warming progresses, it is apparent that there is a tendency toward higher temperatures and an increased number of sunny days. Demand for UV care products as well as anti-perspirants, etc. is expected to increase during summer. In 2020, we launched *Humming Ryokan Technology* fabric softener, which features a breathability mechanism for expelling hot air. Additionally, as the probability of droughts occurring increases, the demand for water-saving products is also expected to increase. We are working actively to develop products for which there is high demand in summer and water-saving products.

Given that there are expected to be significant restrictions on resource use in future, in order to meet the goals set in the Paris Agreement, there will be high demand for biomass materials that do not compete with food. We have developed Bio IOS surfactant, which uses a type of biomass that does not compete with food and which has not previously been used. Bio IOS surfactant is already in use in our *Attack ZERO* laundry detergent product.

Our total investment in environmentally friendly R&D, including climate change response measures, in 2020 was 2,976 million yen, while the total cost of this R&D work was 6,192 million yen.

Efforts in manufacturing (plants, offices, logistics centers)

Mitigation

1. Efforts to reduce energy consumption

• Introduction of high-efficiency equipment and efficient operation of equipment

Continuing from the previous year, equipment such as chillers, air conditioners and compressors were replaced with Best Practice Technologies (BPT) equipment in 2020. Through optimized control using multiple units of air conditioners and compressors, we are operating equipment more efficiently corresponding to fluctuating demand.

In addition, we are switching lights to LED around the world. Our plants, offices and logistics centers in Japan have accomplished plans announced in 2015, reducing CO_2 emissions by approximately 4.65 thousand tons annually. Affiliated companies outside Japan are also proactively switching to LED lights.

• Eliminating wasted energy

As in the previous year, in 2020 we continued to take steps to find areas with wasted energy, reduce energy use to the minimum required and use unused energy in other processes.

Aiming to improve the efficiency of steam use, we are continuing to strengthen our steam trap maintenance and increase the amount of steam we recover. We are also actively implementing improvement activities at worksites to optimize the amount of required energy, including lowering the set temperature of heat-insulated tanks and shortening operating times.

Striving to eliminate energy wastage at our offices. Some of the steps we are taking include turning off unnecessary lights, using presence

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sensors to automatically turn lights on and off, optimizing air conditioner temperature settings and encouraging people to take the stairs to reduce unnecessary elevator use.

We undertook 124 energy-saving activities at Japanese plants and offices in 2020, resulting in approximately 5,984 tons of CO_2 reduction and 200 million yen in cost reduction for the year.

2. Efforts to use cleaner energy

• Clean-burning fuel

Gas fuel, especially natural gas, is the cleanest fossil fuel. We use natural gas at all plants outfitted with the necessary infrastructure. Our plants do not use any coal.

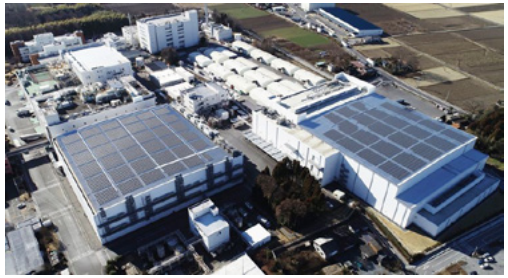
• Use of renewable energy

We are promoting the introduction of solar photovoltaic power generation systems for on-site power generation at Kao-owned facilities. In 2020, the systems installed at the Sumida Office in Tokyo, Pilipinas Kao Incorporated, Kao Austria and Kao (Taiwan) Corporation started generating electricity (the system installed at Kao (Taiwan) Corporation is used exclusively for generating electricity for sale to the grid). The total power generating capacity of these systems was 4,978 MWh in 2020. The generating capacity of individual facilities is shown on the right.

We are also promoting the purchasing of electric power that is generated using renewable energy. Kao Chemicals GmbH, Kao Manufacturing Germany GmbH, Kao Corporation SA's three plants in Spain, Kao Chimigraf, Molton Brown, Kao USA, Kao Corporation's Kawasaki Plant, Kao Sanitary Products Ehime and four plants in China (Kao Corporation Shanghai, Kao Chemical Corporation Shanghai, Kao (Hefei) Co., Ltd. and Kao Huludao Casting Materials Co., Ltd.)* have all converted to purchasing only electric power that has been generated from renewable sources.

In addition, Kao Corporation's Tochigi Plant, Kashima Plant, Odawara Plant, Toyohashi Plant and Kao Paper Manufacturing Fuji are all purchasing electric power generated from renewable sources.

* Commenced purchasing of electric power generated using renewable energy in 2020



Photovoltaic (solar) power generating facilities at Tochigi Plant

Total generating capacity of solar power equipment (2020)

Company / Plant	Total generation (MWh)
Tochigi Plant, Kao Corporation	1,656
Toyohashi Plant, Kao Corporation	405
Kao Sanitary Products Ehime	415
Atsugi Logistics Center, Kao Logistics	268
Sumida Kita Logistics Center, Kao Logistics	210
Wakayama Office, Kao Corporation	66
Sumida Office, Kao Corporation	5
Kao Industrial (Thailand)	781
Kao Corporation Shanghai	336
Kao (Taiwan)	303
Pilipinas Kao	291
Kao Penang Group (Malaysia)	191
Kao USA	47
Kao Australia	6

Use of this renewable power reduced CO_2 emissions by 131 thousand tons.

3. Reducing the volume of leaked refrigerants and other greenhouse gases

Air conditioners and chillers used in manufacturing are charged with fluorocarbon that has extremely high global warming potential. To reduce the volume of fluorocarbon leaks from equipment, we have been strengthening our regular equipment inspections.

4. Initiative to secure ZEB Ready certification for office buildings

In August 2020, a newly-built office building forming part of our Sumida Office (in Sumida Ward, Tokyo) was awarded ZEB (Net Zero Emission Building) Ready certification. Through the installation of highly efficient, energy-saving equipment such as highly-insulating external walls and water-based radiant air-conditioning, the new building realizes a reduction in energy consumption of 58% compared to a building with standard specifications. The new building also has solar panels on its roof, along with an emergency generator unit, ensuring that the building is ready to cope with natural disasters.

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DECARBON -IZATION

Employees' voice

An office building that is environmentally friendly and also employee friendly

Sumida ZEB Ready project team

The Sumida Office (in Sumida Ward, Tokyo) is Kao's oldest worksite, and has many old buildings which are currently being renovated. The first step in this process has been the construction of a new building based around the following keywords: Eco, Healthy Office and BCP.

On the environmental side, the building features radiant air conditioning and a desiccant-type external air processing system, as well as a micro co-generation system*1, rainwater recycling, solar panels, etc., and has been awarded ZEB*2 Ready certification.

In addition, having learned the lessons of the Great East Japan Earthquake of 2011, and taking into account the fact that the building is located roughly at sea level, a base isolation system has been adopted for the building, which is also equipped with a backup power supply, etc., so that the building will be able to function as a business continuity planning (BCP) backup site in the event of a natural disaster.

Going forward, we aim to expand the area of green space at the office, making it a verdant, environmentally friendly and employee friendly office.

*1 Micro co-generation
Micro co-generation systems generate electricity using a gas engine generator powered by clean energy such as natural gas or bio-gas that has a low environmental footprint. The heat generated during electricity generation is used efficiently for the supply of hot water or for heating, thereby reducing energy loss.

*2 ZEB (Net Zero Energy Building)
A ZEB building is one that has energy consumption at least 50% lower than that of a building with standard specifications.

Adaptation

With rising summer temperatures, heat stroke prevention is essential in Japan. Especially for our outdoor workers, we have taken measures such as to share the day's heat index, shorten continuous working hours and prepare drinking water.

Additionally, as new water risks, including more powerful typhoons and localized torrential rains, etc., are likely to emerge as a result of climate change, annual water risk surveys are conducted at our plants.

➡ p. 122 Making the world healthier & cleaner > Water conservation

Decarbonization 305-3

Efforts in distribution

Mitigation

CO_2 emissions during distribution in Japan were 101 thousand tons-CO_2 in 2020, a 22% reduction (per unit of sales, 2005 baseline). However, because sales fell due to the impact of the COVID-19 pandemic, on a per unit of sales basis there was a deterioration.

1. Increase shipment volumes per shipment

We are proactively making adjustments including improving loading efficiency, changing product sizes and using larger vehicles.

2. Shorten shipping distances

We are continuing to look at ways to revise shipping routes, optimize manufacturing plants and shift which logistics center is used.

3. Use cleaner shipping methods

We are pursuing steps such as switching from truck to shipping methods such as rail and ship, which have lower CO_2 emissions (modal shift).

4. Improve loading ratios

Having trucks return from their shipping destination with a load, instead of returning empty after unloading, i.e., improving the loading ratio, contributes to improving energy efficiency and CO_2 emissions in shipping.

Kao is participating in the Cross-ministerial Strategic Innovation Promotion Program promoted by Japan's Cabinet Office. We have partnered with Lion Corporation to launch a smart logistics initiative, with scheduled deliveries having started in October 2020.

The aim is to enhance the productivity of truck transport and reduce CO_2 emissions by implementing two-way transport that integrates deliveries between Kao's Kawasaki Plant (in Kanagawa Prefecture) and the Sakaide Logistics Center (in Kagawa Prefecture), as well as from the Sakaide Plant (in Kagawa Prefecture) of Lion Chemical (a Lion Corporation affiliate) and the logistics centers at Kazo (in Saitama Prefecture), Kashiwa (in Chiba Prefecture) and Sagamihara (in Kanagawa Prefecture).

This new initiative will reduce the distances that trucks are travelling without loads, by comparison with conventional transportation methods, and is expected to result in a 45% reduction in CO_2 emissions and a 23% reduction in transport costs for both companies combined.

Collaborative delivery with Lion Corporation

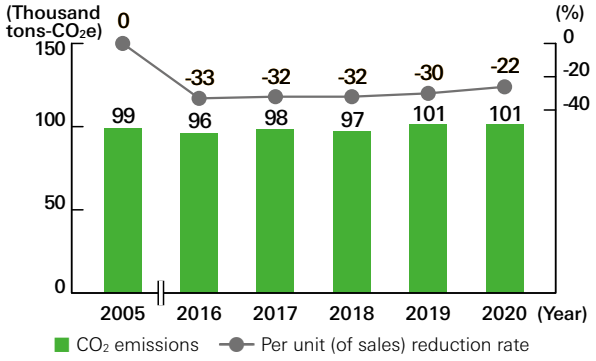
5. To enhance visualization of distribution-related energy usage and CO_2 emissions

We had been making preparations to begin calculating distribution-related energy usage and CO_2 emissions outside Japan starting from 2020. However, the calculation and reporting of distribution-related CO_2 emissions outside Japan for 2020 has been based on estimates. We are proceeding with preparations to begin reporting of emissions based on actual distribution performance as soon as possible.

Adaptation

With the worsening trend toward short-term, localized torrential rain, there is an increased risk of the supply chain from Kao's factories to our customers being disrupted, with Kao being unable to deliver products on schedule, and a possible need to use roundabout routes over an extended period, leading to an increased environmental burden. When risks appear, in order to take appropriate measures in a short amount of time, subsidiaries are charged with managing product transport to our main market in Japan.

CO_2 emission during distribution☑ (Japan)



* Boundary: Kao Corporation and Kanebo Cosmetics Inc.
* Assurance provided for CO_2 emissions
* Per unit of sales is calculated based on Japanese GAAP in FY2015, and on International Financial Reporting Standard (IFRS) from FY2016 onwards.

Decarbonization 305-3

Efforts during use

Mitigation

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, in 2009 we launched *Attack Neo*, which reduces the lifecycle CO_2 emissions per wash by approximately 22%. In 2019, we introduced *Attack ZERO*, a concentrated liquid clothing detergent that has redefined the whole concept of clothes washing, which uses Bio IOS, our most advanced ever detergent base, as its main ingredient, and which was followed by *Attack 3X* in 2020. Within Japan, the way in which consumers do their washing has begun to be transformed, with washing machines that come equipped with a button allowing the user to select a single rinse cycle as a standard feature becoming the norm. Laundry detergents that require only one rinse cycle are offered in Japan and Taiwan.

Additionally, we offer shampoos and other products that prevent hair from tangling, making it easier for heated air from hair dryers to penetrate hair and shorten drying time, reducing their energy consumption.

To help ensure that when consumers use these products, which are capable of effectively reducing CO_2 emissions, they use them properly, we participate in environmental events hosted by local governments and distribution companies, and we have compiled and distributed our “Let’s eco together” brochure, which communicates our initiatives to consumers.

We also offer a wide selection of products for industry that allow customers to reduce their CO_2 emissions during the use stage. These include a toner with low-temperature fixing, which reduces the photocopier’s power consumption, washing and rinsing agents that can wash and rinse steel plates at low temperature to reduce CO_2 emissions from fuel consumption, a semiconductor wafer cleanser that contributes toward CO_2 emissions reduction by reducing the amount of ultra-pure water and chemical agents used during the cleaning process, an additive for coating material that helps improve fuel economy by reducing the coating weight of wire harnesses for automobiles, and an additive essential to improving dispersion of a required material for fuel-efficient tires to demonstrate their performance.

Attack ZERO concentrated liquid clothing detergent, which has won the Ten Greatest Products Award (organized by Nikkan Kogyo Shimbun, Ltd.)

Essential Smart Blow-Dry
Prevents hair from getting tangled and reduces the time needed for drying by 20% by making the direction of dryer air more precise

Adaptation

As global warming progresses, the period of time for which there is high demand for anti-perspirants etc. in the summer is lengthening, and demand is expected to rise. We are therefore working to strengthen our development of these types of products. Additionally, as the probability of droughts occurring increases, the demand for water-saving products is also expected to increase.

Our sonaeru website provides information about household products that will be useful in the unfortunate event of a natural disaster occurring, with a particular focus on products that can help people to maintain good hygiene while living in an evacuation facility.

➡ Kao sonaeru website
www.kao.co.jp/hisaiji/ (Japanese)

Decarbonization 102-12, 102-43, 305-3

Efforts in disposal and recycling

Mitigation

CO_2 emissions in the disposal and recycling stage consist of the following two types. One type is the CO_2 emitted as materials and ingredients degrade when packaging, diapers and other materials disposed of by consumers after use are incinerated, or when wastewater containing cleansing and other agents made from petroleum is treated. The other type is CO_2 emitted from using energy required to operate incinerating and recycling equipment and wastewater treatment facilities. In order to simultaneously address these two types of emissions, the most important thing is to reduce the volume of material subject to disposal and recycling. For this reason, as far as possible we recycle waste that is subject to disposal and recycling. In the case of waste that cannot be recycled and can only be disposed of as waste, we adopt a carbon neutral approach.

In line with this philosophy, we refer to initiatives that reduce the amount of waste that needs to be dealt with as Innovation in Reduction. We are applying Innovation in Reduction to the raw materials used in manufacturing packaging and diapers, and to the cleaning agents used in cleaning products. We refer to initiatives in the area of recycling as Innovation in Recycling. We are applying Innovation in Recycling to packaging and to used diapers.

Used diapers are carbonized using carbonization equipment, and the resulting material is then utilized for environmental purification and plant cultivation. We are also undertaking R&D aimed at conversion to new types of carbon material.

In addition, we are proceeding with the utilization of carbon neutral (i.e, biomass) plastic and other raw materials.

To further strengthen our focus on recycling activities, in 2020 we established the Recycling Science Research Center within our R&D Division.

➡ For details about diaper recycling, achieving zero waste and replacement initiatives, see p. 105 Making the world healthier & cleaner > Zero waste

Adaptation

In the future, as the human population continues to increase, it is anticipated that increasingly strict restrictions will be placed on the extraction of fossil fuels, in order to meet the goals of the Paris Agreement, and as a result restrictions can be expected to be placed on the use of various types of resources. We believe that, in order to realize a decarbonized society, it is vital to reduce the amount of raw materials used, recycle used products whenever possible, and only dispose of those products of biomass origin when there is no alternative to disposal.

➡ p. 105 Making the world healthier & cleaner > Zero waste

Examples of major collaboration projects with stakeholders

- Participation in the Race to ZERO program promoted by the United Nations Framework Convention on Climate Change. As a member of the international community, we are collaborating on efforts to realize net zero emissions.
- Participation in the Business Ambition for 1.5°C program promoted by the SBTi. We are taking part in related activities together with many leading global companies.
- Participation in the Green Value Chain Platform and 2°C Target Network Corporate Edition 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
- Cool Choice awareness, promoted by the Ministry of the Environment, and the contribution to lifestyle change for consumers toward decarbonization
- Participation in the Japan Climate Initiative and the spread of information and opinion exchange on climate change measures promoted by various constituents besides 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 contribution that chemical products can make toward reducing CO_2 emissions.
- Participation in the Supply Chain Program run by the CDP for 12 consecutive years. We are contributing toward the enhancement of suppliers' awareness, and toward promoting a transformation of the types of action taken by suppliers.
- As a member of the steering committee of the TCFD Consortium of Japan, we are contributing toward the disclosure of climate change-related information, and toward the promotion of dialogue. In 2020, we were involved with four lectures, interviews etc. relating to decarbonization. Our decarbonization initiatives have contributed toward enhancing awareness in society.

Decarbonization 102-15, 201-2

Scenario analysis

In 2020, besides evaluating the impact of the COVID-19 pandemic, we also implemented more detailed analysis of the following items, based on the issues for which scenario analysis was conducted in 2019.

Evaluation of the impact of the COVID-19 pandemic

The COVID-19 pandemic has brought about a rise in hygiene awareness throughout society, and has also led to significant social changes, including lockdown restrictions, people spending more time at home, etc. While these changes have boosted demand for hygiene-related products, there has been a fall in demand for hair salon products and for make-up and cosmetics products.

In the area of decarbonization, the increased demand for hygiene-related products and for dish-washing products has led to a rise in CO_2 emissions associated with product use, and as a result we have failed to meet our CO_2 emissions reduction target, resulting in increased reputation risk.

Ethical consumption forecast

We believe that, in order to deliver a Kirei Lifestyle in which consumers make choices that embody consideration for others and for the environment, it is vitally important to build the market for ethical products. Survey results have shown that there are significant disparities between generations and between regions in relation to attitudes to ethical consumption.

In terms of generational attitudes, the survey results re-confirmed that, regardless of region, Millennials and members of Generation Z attach more importance to ethical consumption. As regards regional differences, the survey results showed that, in Europe and the Americas, there are already large numbers of products on the market that claim to be ethical products, and that interest in ethical consumption is growing in certain specific areas. In Japan and in the Asia region as a whole, the survey results indicated that, while consumers do have some degree of interest in ethical products, these products are still very much in the early stages of adoption.

Besides keeping pace with trends in Europe and the Americas, Kao will also be building a stronger system for applying the know-how and experience that we have acquired in Europe and the Americas in Japan and Asia.

Evaluation of the impact of rainfall levels on Kao worksites

We evaluated the potential harm that low rainfall, torrential rain and high tides could cause to Kao's main worksites (such as our head office, all factories, important logistics centers, etc.), by collating information from the hazard maps and water-related databases published by local governments, and by performing detailed assessment of rainfall forecasts that take climate change into account.

With regard to low rainfall, the results confirmed that, as "low rainfall" represents a level of rain roughly equivalent to what is being experienced at the moment, it is important to continue with current drought preparedness measures. Several factories may face an increase in the incidence of torrential rains, and the survey results also confirmed that there may be a rise in the frequency of unusually high tides at factories located on the south coast of Japan and on the Sea of Japan coast. We will be using this information to strengthen disaster preparedness for our main worksites.

Survey of the impact of climate change on oil palm cultivation

In order to evaluate the impact of climate change on the cultivation of oil palm trees in Malaysia and Indonesia, from where Kao procures palm oil, we examined the documents available in the public domain and reviewed our existing forecasts. The results of this evaluation showed that the more the temperature rises, the smaller the area suitable for oil palm cultivation will become. It was confirmed that there is a strong likelihood that rising temperatures will be accompanied by a fall in palm oil harvests. For example, in Malaysia, a 1°C rise in the average temperature would lead to an approximately 10% fall in the size of the palm oil harvest.

We are implementing various strategies in response to this situation. Besides helping to boost harvests through the provision of support for small oil palm plantation operators, we are also developing surfactants that use CO_2 from the atmosphere as a raw material.

Forecasting future plastic usage

In the area of resource recycling, we recognize the importance of reducing plastic usage and promoting the adoption of recycled plastic, in line with climate change. In the 2°C scenario, demand for recycled plastic will rise, and there may be regulations mandating its use, in which case, depending on how quickly the supply of recycled plastic rises, there is a possibility that the price may actually fall. In the 4°C scenario, it is anticipated that the price of virgin plastic derived from petrochemical sources will rise, due to strong continuing demand for plastic.

As Kao is undertaking technology development with the reduction of plastic usage as our first priority, we believe that we can minimize the negative impact on our operations regardless of which scenario turns out to be the case.

Our strategy going forward

Based on the results outlined above, we did not see any major risks that would prevent the realization of our K25 and K30 plans. Going forward, we will:

- Strengthen the integration of climate change scenario analysis results with our business operations
- Implement scenario analysis in other areas besides climate change

In this way, we will be able to strengthen the resilience of our corporate activities.

Decarbonization 102-44

Stakeholder engagement

Kao Corporation is a leader in corporate sustainability

Dexter Galvin
Global Director of Corporations & Supply Chains at CDP

In 2020, Kao Corporation achieved the most prestigious "triple A" score from CDP for its leadership on climate change, deforestation and water security. Out of thousands of global companies scored, only ten companies achieved this status in 2020, and a mere handful have achieved it in previous years. This makes Kao one of the global leaders in environmental transparency and action, not only in Japan but in the world.

Kao has been a long-time discloser through CDP and has been an active CDP supply chain member since CDP launched its supply chain program for climate change in 2009. Kao has been using the program effectively and has since established valued supplier engagements in climate change, forests and water. Kao has been requesting its suppliers to disclose their environmental impacts through CDP and engaging with them to improve their performance to meet its ESG and sustainability goals.

It is very encouraging to see Kao engaging with a wide range of stakeholders from across its value chain to drive environmental action, from small suppliers and consumers to fellow companies and investors.

CDP works on forests through the lens of the commodities that drive the most deforestation, such as palm oil, timber, cattle and soy. Kao has been collaborating with other companies to support smallholders producing palm oil in Indonesia, to build their capacity for more sustainable production. Through these activities, Kao achieved an A score for sustainable sourcing of palm oil, while also achieving a high score (A-) for timber products, thanks to increasing use of FSC-certified paper for packaging and products.

It is essential that major businesses act in line with climate science. Kao Corporation has a Science-Based Target (SBT) to reduce its absolute scope 1, 2, and 3 GHG emissions by 22% by 2030 from a 2017 base year—which is in line with a 2°C pathway. The consumer goods and chemicals company is also transitioning to renewable power globally and has used internal carbon pricing to promote energy-saving investment.

Kao's approach of taking action across the value chain as well as in its own operations is apparent in the field of water security too. In addition to driving water efficiency improvements in its factories, Kao is also designing household products to save water when used by consumers.

In the future, we hope and expect to see Kao progress even further on its sustainability journey. The next step should be to upgrade its SBT to align with a 1.5°C pathway and join the Business Ambition for 1.5°C*, which we are encouraging all ambitious companies to do in order to lead the net zero transition. We would also suggest that Kao can build on its success in renewable power procurement by joining the RE100 initiative and advocating for the transition to 100% renewables. Pioneering companies such as Kao have the power to drive the net zero carbon transition to a sustainable economy. I look forward to watching Kao continue its fantastic work and make further progress on value chain transformation.

2021 is a crucial year in the transition, as we have only until 2030 to halve global GHG emissions, stop deforestation and achieve the Sustainable Development Goals including water security for all. This is the decade of action and there is no time to wait.

* Business Ambition for 1.5°C
This is an initiative in which business enterprises commit themselves to working to help keep global warming down to within 1.5°C, rather than 2°C. The U.N. Global Compact, Science Based Targets initiative (SBTi) and the We Mean Business coalition announced the initiative in 2019, calling on business enterprises to sign up to it.