

Kao Sustainability Data Book 2019



kao

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See the following for a CEO message
 → Kao Integrated Report 2019
www.kao.com/content/dam/sites/kao/www-kao-com/global/en/investor-relations/pdf/reports-fy2019e-all.pdf#page=22

How to Use This PDF

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The content of this report includes forward-looking statements that are based on information available at the time of publication. These forward-looking statements reflect known and future risks, assumptions, etc. Actual results and performance may differ materially from Kao's expectations due to these variables and other risk factors.

Editorial Policy 102-50, 102-51, 102-52, 102-56

Since 2017, Kao has issued the Kao Integrated Report, with the aim of presenting a comprehensive picture of the value that Kao provides.

The Kao Sustainability Data Book complements the Kao Integrated Report, introducing various activities contributing to the sustainability of the world along with detailed performance data.

Scope and boundary of reporting

In general, we report the activities of the Kao Group (Kao Corporation, its subsidiaries and affiliates). Environmental and social performance data covers Kao Corporation and its subsidiaries.

Exceptions to this data scope have been clearly stated in the text.

In this data book, “Kao” means the Kao Group. We have stated the names of individual organizations covered if it is necessary to identify the boundary.

Organizations covered



→ List of Kao Group companies
www.kao.com/global/en/about/outline/group-companies.html

Period covered

Fiscal 2018 (January 1, 2018–December 31, 2018)
Some qualitative information includes performance of fiscal 2019.

International Financial Reporting Standards (IFRS)

International Financial Reporting Standards (IFRS) have applied since fiscal 2016. Per unit of sales in this data book is calculated based on Japanese standards up to fiscal 2015, and on IFRS in fiscal 2016 thereafter.

Independent assurance

We have had our reports independently assured since 2003. KPMG AZSA Sustainability Co., Ltd. provides independent assurance for this data book. Indicators for which assurance is provided are marked with a [check](#) . A list of those indicators is shown in the [independent assurance report](#) and the [GRI Standards table](#).

Issuance period

Issued on: June 24, 2019
Next report scheduled for issue in: June 2020
(Previous issue: June 12, 2018)

Guidelines referenced

- GRI Sustainability Reporting Standards in 2016
 - * The numbers of referenced GRI disclosures are noted next to the title of each page.
- Environmental Reporting Guidelines (2018), Environmental Reporting Guidelines (2012) and Environmental Accounting Guidelines (2005) by the Ministry of the Environment of Japan
- Environmental Accounting Guidelines for Chemical Companies (November 2003) by the Japan Chemical Industry Association
- ISO 26000 (guidance on social responsibility)
- SASB Standards

- SDG Compass
- TCFD Recommendations

Introduction of various informative tools



[Reports]

→ Kao Integrated Report 2019
www.kao.com/content/dam/sites/kao/www-kao-com/global/en/investor-relations/pdf/reports-fy2019e-all.pdf

→ Kao Sustainability Data Book 2019
(This report)
www.kao.com/global/en/sustainability/databook/

→ Corporate Governance
www.kao.com/global/en/about/policies/corporate-governance/

→ Financial Report
www.kao.com/global/en/investor-relations/library/financial-report/

[Websites]

→ Corporate information
www.kao.com/global/en/

→ Investor relations
www.kao.com/global/en/investor-relations/

→ Sustainability
www.kao.com/global/en/sustainability/

→ R&D
www.kao.com/global/en/research-development/

Kirei Lifestyle Plan—Kao's ESG Strategy ¹⁰²⁻¹⁶

At Kao, we are building up our ESG activities to achieve our 2030 goal of establishing a global presence.

In 2019, we developed our policy on ESG activities and announced the Kirei Lifestyle Plan, which presents our ambitious intentions for the future outlined with specific activities. The values previously embodied in the Kao Sustainability Statement, continue to underpin the Kirei Lifestyle Plan (which represents a further evolution of the Kao Sustainability Statement), through which we will make greater contributions to the sustainability of society.

Philosophy supporting Kao's ESG activities

The Kao Way

Since our founding, we have made it our mission to contribute to the sustainability of society through our business activities. The Kao Way, our corporate philosophy, states, "Our mission is to strive for the wholehearted satisfaction and enrichment of the lives of people globally and to contribute to the sustainability of the world, with products and brands of excellent value that are created from the consumer's and customer's perspective."



→ The Kao Way
www.kao.com/global/en/about/policies/kaoway/

Kirei Lifestyle Plan

In 2016, Kao adopted a long-term vision of what we aim to achieve by 2030. In conjunction with this, we established the Kirei Lifestyle Plan, an ambitious direction we will take with ESG with concrete focus areas.

The Kirei Lifestyle Plan comprises Kao's ESG Vision, and the Kao ESG Commitments and Actions, our strategy for realizing this Vision.

Kao's ESG Vision

Kao's ESG Vision is based on the concept that our ESG activities are designed to help people around the world live more sustainably and benefit the wider society and the Earth. Our value of walking the right path is presented as the foundation of our ESG activities and embodies the one of the core tenets of our founder Tomiro Nagase, "Good fortune is only given to those who work diligently and behave with integrity."

Kao's ESG Commitments and Actions

The activities in the Kirei Lifestyle Plan are presented in the Kao ESG Commitments and Actions. It consists of three new pillars connected to people's lifestyles: "Making my everyday more beautiful," "Making thoughtful choices for society," and "Making the

world healthier & cleaner." These pillars are rooted in our foundation of "Walking the right path."

Kao Actions, our priority action themes, are set for each pillar as well as our 2030 Commitments, our ambitious goals to achieve by 2030. Individual, mid-to long-term targets have also been set for each of the 19 Kao Actions to facilitate effective and reliable activities.



→ p. 10 Mid- to long-term targets

In the previous Kao Sustainability Statement, nine main themes were categorized in the three key areas: Conservation, Community, and Corporate Culture. These key areas and themes are incorporated into the three new pillars and the 19 Kao Actions based on people's lives.

Kirei Lifestyle Plan—Kao's ESG Strategy 102-16, 102-47

Kao's ESG Vision

A Kirei Lifestyle means living a beautiful life inside and out.

A Kirei Lifestyle is full of compassion. Where making your own life clean and beautiful never compromises the beauty and cleanliness of the world around you.

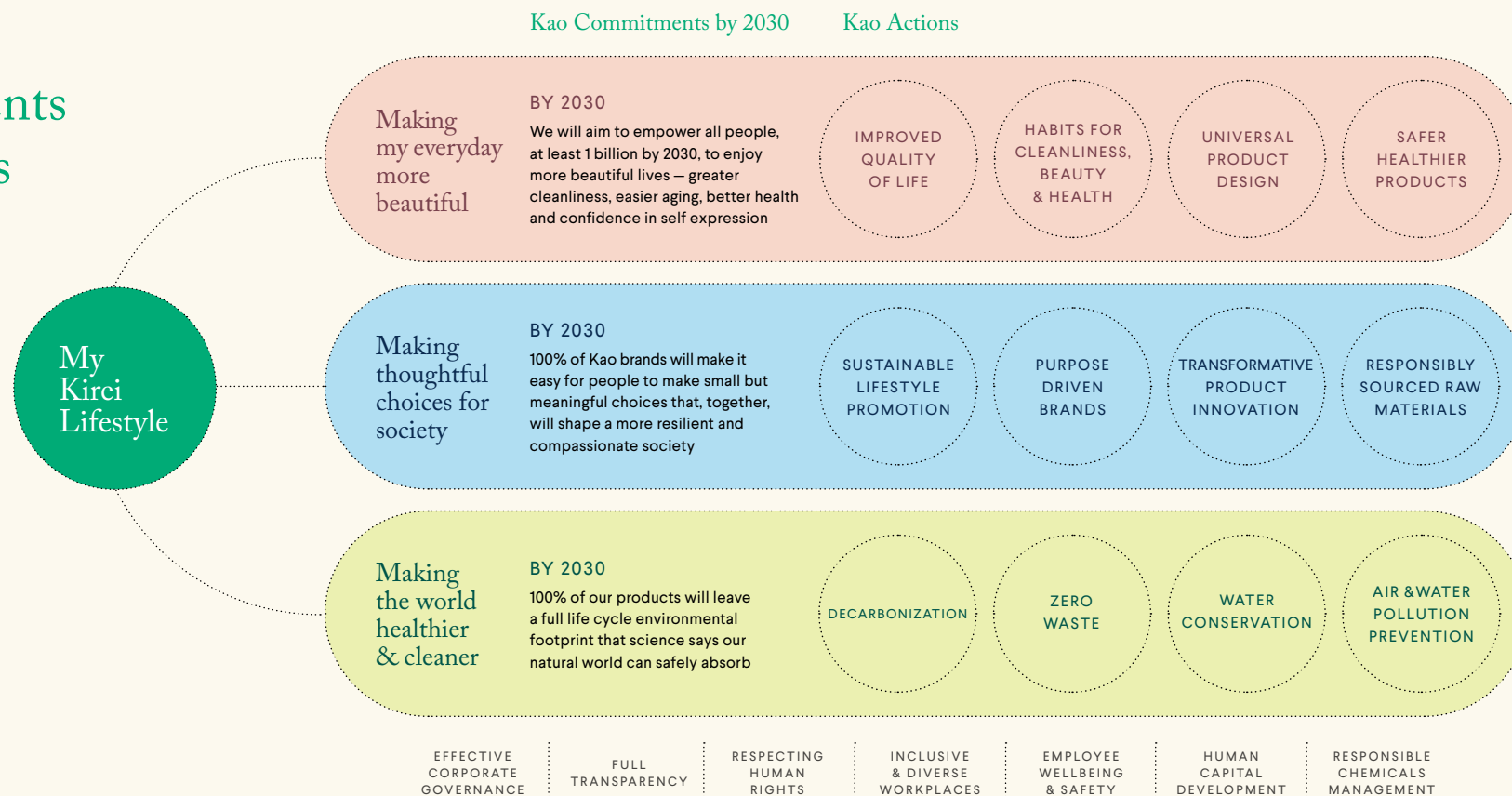
A Kirei Lifestyle is enjoying today, with the peace of mind that those joys will be there tomorrow.

It's the chance to express who you truly are, with the confidence that you are walking the right path. Even in the smallest, everyday moments.

That's why, at Kao, everything we do is in service of this lifestyle. It's why we do what is right, not what is easy.

We put our innovation and imagination to the task of enriching lives by finding ways for people the world over to live the Kirei Lifestyle.

Kao's ESG Commitments and Actions



Walking the right path

Business growth through the realization of the Kirei Lifestyle

The objective of our ESG activities and realizing the Kirei Lifestyle through them is business growth. The Kirei Lifestyle Plan is the primary engine for achieving our vision.



→ Kao Integrated Report 2019

Kao's *Yoki-Monozukuri*

www.kao.com/content/dam/sites/kao/www-kao-com/global/en/investor-relations/pdf/reports-fy2019e-all.pdf#page=12

Kao Group's Management Vision

www.kao.com/content/dam/sites/kao/www-kao-com/global/en/investor-relations/pdf/reports-fy2019e-all.pdf#page=36

K20 mid-term plan

Our K20 mid-term plan, which commenced in 2017, is a key waypoint for achieving our vision by 2030.

ESG activities are essential to achieve each of the following three K20 targets.

FY2017 to FY2020

Mid-term Plan K20*

Three commitments:

Commitment to fostering a distinctive corporate image

- Become a company that is always by the consumer's side

Commitment to profitable growth

- Continue to set new record highs for profits
- Aim for like-for-like net sales CAGR of +5%
- Operating margin of 15%
- Three 100 billion yen brands (*Merries* baby diapers, *Attack* laundry detergents, *Bioré* skin care products)

Commitment to returns to stakeholders

- Shareholders: Continuous cash dividend increases (40% payout ratio target)
- Employees: Continuous improvement in compensation, benefits, and health support
- Customers: Maximization of win-win relationships

What Kao Aims to Be by 2030

What Kao Aims to Be by 2030*

Make Kao a Company with a Global Presence

A distinctive corporate image

A high-profit global consumer goods company

A high level of returns to stakeholders

ESG activities to achieve the mid-term plan

- Contribute to the sustainability of society in ways unique to Kao, and communicate to and get feedback from stakeholders as part of these activities.
- Build a profitable growth model by integrating ESG into business activities.
- Provide returns to stakeholders by increasing corporate value and contributing to resolving social issues.

ESG Activities for Achieving our Vision

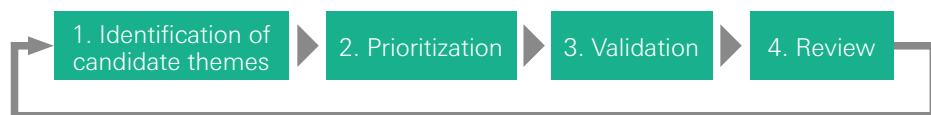
- Actively drive ESG initiatives through our business activities, viewing them not as a cost but as an investment in future growth.
- Undertake global initiatives under the leadership of the new ESG Division and the ESG Committee.
- Under this structure, we will implement Kirei Actions unique to Kao, aim to create unique experiences and touch the hearts of all the stakeholders through products filled with passion.

* For the period between 2020 and 2030, Kao may develop a separate business plan to tie K20 and the 2030 vision together.

Selection process for the Kao Actions as material themes

Kao selected the 19 Kao Actions in the Kao ESG Commitments and Actions through the following four steps.

Selection process



• Objectives of selecting the Kao Actions

1. Targeted action in view of changing social circumstances and issues, and the changing expectations for Kao.
2. Strategic implementation of ESG activities based on Kao policy and changes in business environment and strategy.
3. Efficient investment and effective use of management resources.

Selection of Kao Actions implemented in 2018

1. Identification of candidate themes

1.1 Making a list of candidate themes

We used the following to help identify candidate themes:

- ISO 26000
- GRI Standards
- SDGs
- Evaluation items used by ESG assessment bodies
- Global mega-trends
- In-house workshops
- Materiality at other companies
- Third-party opinions

As a result of this process, 78 candidate themes (17 environmental, 37 social, and 24 governance) were selected.

1.2 Top management interviews

We held interviews with eight members of top management including representative directors, directors, and managing executive officers, and compiled their thoughts and requests regarding Kao's ESG strategy.

1.3 Region-based workshops

Using a workshop format in the regions of Asia, the Americas, and Europe, we identified activities that would simultaneously satisfy business needs, sustainability needs, and customer and consumer needs from the viewpoint of our operational sites. We then identified elements in those activities that serve becoming a company with a global presence.

2. Prioritization

Of the 78 candidate themes identified in 1.1, we asked some external stakeholders and employees to rate their priority in growing our business and increasing our corporate value.

Evaluator attributes

- External stakeholders: 32 (21 Japanese, 11 non-Japanese)
- Employees: 71 (39 Japanese, 32 non-Japanese)

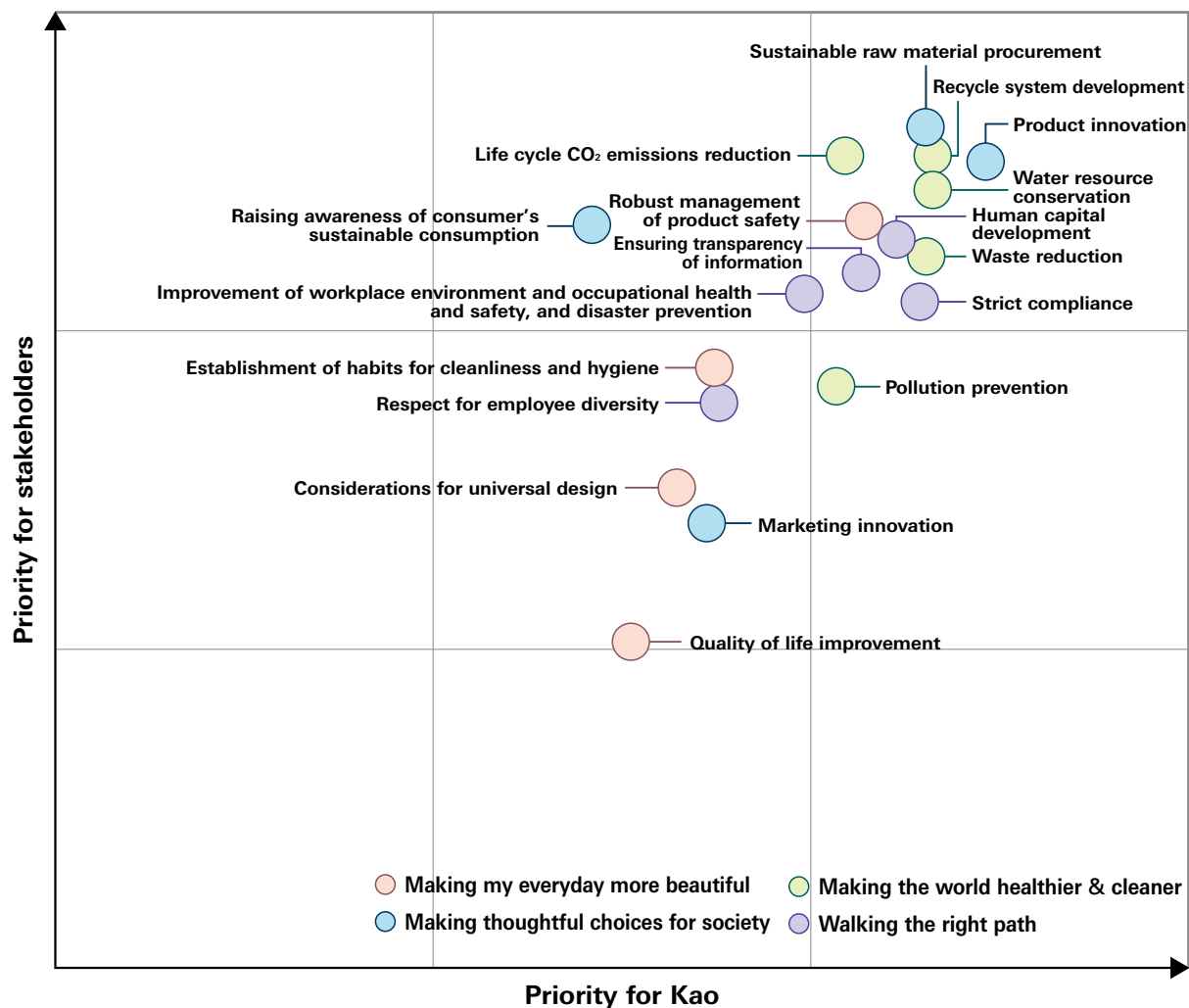
External stakeholders who provided evaluations fall under the following groups:

- Consumers/customers
- Suppliers
- Local community members
- NGO/NPO representatives
- Academics
- Industry body/same industry representatives
- Shareholders/investors

Kirei Lifestyle Plan—Kao's ESG Strategy 103-1, 103-2, 103-3, 102-47

We then organized the results of their evaluation in the Matrix of Materiality, which maps materiality along two axes: priority for stakeholders and priority for Kao.

Matrix of Materiality



The ESG Promotion Meeting, attended by division leaders, reviewed the results of the evaluation based on third-party opinions, and then selected the 19 Kao Actions.

Themes that were not included in the Kao Actions despite being relatively highly rated in the evaluation will be managed and implemented under a separate organization. For instance, "Disaster preparation and reconstruction assistance" was highly rated externally. These themes have been and will continue to be implemented under the Responsible Care Promotion Committee.

3. Validation

The ESG Committee reviewed the 19 Kao Actions selected in the ESG Promotion Meeting, and the Board of Directors approved them.

Based on this, divisions set their own targets and action plans to conduct ESG activities.

4. Review

The 19 Kao Actions will be periodically reviewed and revised using selection steps 1 to 3.



➔ For details concerning the structure, see p. 9, ESG promotion structure.

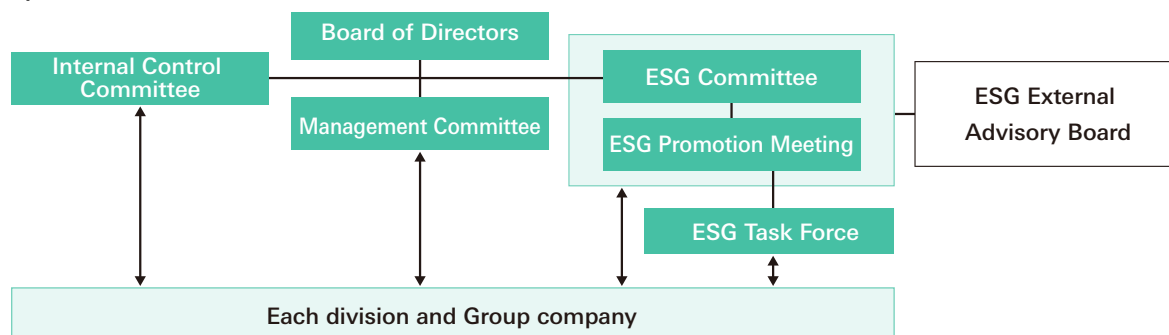
ESG promotion structure

The ESG promotion structure was updated in 2018 to achieve greater flexibility and resilience in implementation. It is made up of the ESG Committee, the highest decision-making body for ESG matters under the Board of Directors; the ESG External Advisory Board, comprised of outside experts to reflect external viewpoints; the ESG Promotion Meeting, designed to effectively implement the ESG strategy; and the ESG Task Force, which proposes activities for focus themes.

This structure drives ESG activities in the divisions.

The ESG Committee consists of members of the management team, and the ESG Promotion Meeting is attended by the heads of business divisions, regions, functional divisions and corporate divisions. These bodies are able to make swift management decisions on ESG matters, and the structure enables divisions with global operations to integrate ESG into their business activities.

ESG promotion structure



Roles, structure, and frequency of meeting of each organization

Organization	Roles	Structure	Frequency of meetings
ESG Committee	<ul style="list-style-type: none"> Develop policy and strategy for our Group ESG activities. Present guidelines for developing detailed plans based on the ESG Promotion Meeting. Deliberate and decide on matters raised in the ESG Promotion Meeting. 	Committee chairperson: President & CEO; Members: Senior managing executive officers, managing executive officers, other executives	Four times/year
ESG External Advisory Board	<ul style="list-style-type: none"> Give advice and recommendations to the ESG Committee from outside viewpoints. Provide information to the ESG Committee to enable development and implementation of world-class plans. Provide opportunities for collaboration and cooperation with external parties. 	Chairperson and members: External influential experts	Once/year
ESG Promotion Meeting	<ul style="list-style-type: none"> Flesh out and advance the ESG strategy in the Kao Group. Integrate ESG into the business strategy and operations. Establish task forces as necessary to implement focus themes. 	Meeting chairperson: Head of the ESG Division; Members: Heads of business divisions, regions, functional divisions and corporate divisions	8–12 times/year
ESG Task Force	<ul style="list-style-type: none"> Separate task forces are established for each focus theme. Propose activities based on the detailed plan developed by the ESG Promotion Meeting. 	Members: Staff of the division relevant to the focus themes	As necessary

Education to promote ESG

Since we released the Kao Sustainability Statement, we have conducted educational activities for employees using a variety of approaches.

Education through in-house trainings

A sustainability unit is incorporated into various training programs organized by the HCD Division and the SCM Division. In 2018, sustainability lectures were given at pre-assignment trainings held for abroad top management before they went overseas, career trainings for mid-career hires, basic seminars for the SCM Division, and in the Global Techno School.

Lectures and presentations

Kao Corporation has invited outside experts to give in-house presentations. In 2018, Takejiro Sueyoshi, special advisor to the United Nations Environment Programme Finance Initiative and chairman of the World Wildlife Fund Japan, gave a presentation on the latest trends related to climate change.

Workshop

We have communicated future ESG promotion policy and related information at workshops held in Asia, the Americas, and Europe.

Education for ESG Promotion Meeting members

We communicated the ESG promotion policy and related information at the ESG Promotion Meeting.

Mid- to long-term targets

Individual mid- to long-term targets are set for each of the 19 Kao Actions.

Based on the mid- to long-term targets, divisions set their own targets according to their business activities and in 2019 started activities based on their plans.

We will confirm the progress of these plans while monitoring division activities.

Mid- to long-term targets for the 19 Kao Actions

Prioritized actions	Indicator	Target value	Target year	Base year	SDGs
Making my everyday more beautiful					
Improved quality of life	% of new or improved products which contribute to a comfortable, beautiful, healthy life and touch the heart of people.	100%	2030	—	1 3 5 17
Habits for cleanliness, beauty & health	Coverage of enlightening activities that stimulate habits for cleanliness, beauty & health using Kao products and services. Scope: targeted brands/categories	100%	2030	—	3 6 17
Universal product design	% of new or improved products that meet Kao's Universal Design Guidelines.	100%	2030	—	10 12 17
Safer healthier products	% of targeted ingredients of concern on which views are disclosed.	100%	2030	—	3 12 17
Making thoughtful choices for society					
Sustainable lifestyle promotion	Coverage of distribution of information, information tools, and enlightening or communication activities for sustainable lifestyle. Scope: targeted brands/categories	100%	2030	—	4 11 12 17
Purpose driven brands	% of Kao brands that make a contribution to solving social issues and that make people feel and sympathize brand's social usefulness.	100%	2030	—	11 12 17
Transformative product innovation	Cumulative number of transformative sustainable product innovations launched.	10 or more	2030	—	9 12 13 17
	% of new or improved products which meet Kao sustainability guidelines.	100%	2030	—	
Responsibly sourced raw materials	% of certified paper products and pulp for consumer products.	100%	2025	—	8 12 14 15 17
	Confirm traceability to small oil palm farm.	Finish	2030	—	

Kirei Lifestyle Plan—Kao's ESG Strategy ^{103-2, 103-3}

Prioritized actions	Indicator	Target value	Target year	Base year	SDGs
Making the world healthier & cleaner					
	Kao recognition or achievement level by external ratings firms.	Highest evaluation level	Every year	—	3 6 7 12 13 14 17
Decarbonization	% reduction in absolute full lifecycle CO ₂ emissions.	22%	2030	2017	7 12 13 17
	% reduction in absolute scope 1 + 2 CO ₂ emissions.	22%	2030	2017	
Zero waste	Quantity of innovative film based packaging penetration for Kao and others per annum.	300 million	2030	—	12 14 17
	Quantity of waste not for recycling from factories and offices.	Zero	2030	—	
Water conservation	% reduction in full lifecycle water use per unit of sales.	10%	2030	2017	6 12 17
	% reduction in full lifecycle water use per unit of sales in regions with water scarcity.	40%	2030	2017	
Air & water pollution prevention	% of factories which disclose VOC and COD emissions.	100%	2025	—	3 6 12 14 17
Walking the right path					
Effective corporate governance	Kao recognition or achievement level by external ratings firms.	Highest evaluation level	Every year	—	
	Number of serious compliance violations per annum.	Zero	Every year	—	
Full transparency	% of consumer product brands for which people can easily access complete ingredients information.	100%	2030	—	12 17
Respecting human rights	% response rate to human rights due diligence. (risk assessment across internal, suppliers and contractors)	100%	2030	—	5 8 17
Inclusive & diverse workplaces	Affirmative answer rate to a question on “Inclusion and Diversity” on “Find”, our employee survey with voice of employees.	75%	2030	—	5 8
	% of female managers.	Same as % female employees	2030	—	
Employee wellbeing & safety	Lost time accident frequency rate.	0.1	2030	—	3 8
	Average number of lost long-term work days. * Starting from Japan.	105	2030	—	
	Ratio of employees who have lost long-term work days per one thousand employees. * Starting from Japan.	0.12	2030	—	
Human capital development	Affirmative answer rate to a question on “Development Opportunities & Climate” on “Find”, our employee survey with voice of employees.	75%	2030	—	8
	Affirmative answer rate to a question on “Engagement/Employer of Choice” on “Find”, our employee survey with voice of employees.	75%	2030	—	
Responsible chemicals management	% of chemical products and raw materials with disclosed information of benefit and safety to ensure safe usage for our customers.	100%	2030	—	3 6 12 14 17
	% of areas where impact on health, environment and safety from chemicals are managed responsibly and sustainably considering their stages from raw materials procurements to disposal.	100%	2030	—	

Performance in 2018

Our 2018 performance and returns to business and society are as follows.

Beneficial effects on business

1. Business growth

Effects from eco-conscious products

In 2018, the sales ratio of products featuring the “eco together” logo (consumer products in Japan) was 29%, the same as in the previous year. The consumer business in Japan decreased from 886.2 billion yen to 883.9 billion, down approximately 0.3%. Eco-conscious products were not able to contribute to business growth, but did maintain sales at the same level as the prior year.

2. Cost reductions

Economic effects as a result of environmental conservation measures

We received an economic benefit of 4.1 billion yen in 2018. The largest factor was reduced expenses from resource savings, which contributed 2.3 billion yen.



→ p. 94 Conservation > Environmental accounting

3. Risk reductions

We did not experience serious loss of business opportunity from emerging risks in 2018.

4. Increased credibility

In February 2019, Kao was selected for the list of the World's Most Ethical Companies 2019 by the U.S. think-tank Ethisphere Institute. We have been named to the list 13 straight years since the award's inception 2007. We are the only Japanese company, and the only manufacturer of fast-moving consumer goods and chemicals in the world to be honored for 13 consecutive years.

This recognition reflects the fact that the spirit of integrity passed down from our founder continues to be implemented by all Kao Group members in day-to-day operations through practice of the Kao Way and the Kao Business Conduct Guideline (BCG).

Effects on society

In 2017, we attempted to evaluate the returns from our business activities in an integrated manner by converting non-financial effects that result from our business activities into monetary values and combining them with financial impacts. We have compiled the results as research findings that show a large positive effect on returns. This was due to using a calculation method that predominantly relied on employee wages. Future topics to research include broader calculation of as-yet calculated elements and adding more detail to factors for converting financial effects into monetary values.



→ Study on returns to Kao's stakeholders 2017
www.kao.com/content/dam/sites/kao/www-kao-com/global/en/sustainability/pdf/databook-2017-study.pdf

Contributions to the SDGs

Looking ahead to 2030, Kao is focused on the Sustainable Development Goals (SDGs) that have been agreed upon and adopted by the international community. As indicators for realizing a sustainable society, the SDGs set forth an integrated approach for improving the economy, society, and the environment. Contributions by companies are considered extremely important to achieving the SDGs.

As indicated below, we are working to address the Kao Action topics set in the Kao ESG Commitments and Actions with the aim of achieving the SDGs.

The SDGs that the 19 Kao Action topics contribute to

Prioritized actions	1 NO POVERTY	2 ZERO HUNGER	3 GOOD HEALTH AND WELL-BEING	4 QUALITY EDUCATION	5 GENDER EQUALITY	6 CLEAN WATER AND SANITATION	7 AFFORDABLE AND CLEAN ENERGY	8 DECENT WORK AND ECONOMIC GROWTH	9 INDUSTRY, INNOVATION AND INFRASTRUCTURE	10 REDUCED INEQUALITIES	11 SUSTAINABLE CITIES AND COMMUNITIES	12 RESPONSIBLE CONSUMPTION AND PRODUCTION	13 CLIMATE ACTION	14 LIFE BELOW WATER	15 LIFE ON LAND	16 PEACE, JUSTICE AND STRONG INSTITUTIONS	17 PARTNERSHIPS FOR THE GOALS
Making my everyday more beautiful																	
Improved quality of life	●		●		●												●
Habits for cleanliness, beauty & health			●			●											●
Universal product design										●		●					●
Safer healthier products			●									●					●
Making thoughtful choices for society																	
Sustainable lifestyle promotion				●							●	●					●
Purpose driven brands											●	●					●
Transformative product innovation									●			●	●				●
Responsibly sourced raw materials								●				●		●	●		●
Making the world healthier & cleaner																	
Decarbonization							●					●	●				●
Zero waste												●		●			●
Water conservation						●						●					●
Air & water pollution prevention			●			●						●		●			●
Walking the right path																	
Effective corporate governance																	
Full transparency												●					●
Respecting human rights					●			●									●
Inclusive & diverse workplaces					●			●									
Employee wellbeing & safety			●					●									
Human capital development								●									
Responsible chemicals management			●			●						●		●			●

Impacts on society through the value chain

Our business activities have various impacts on society through the value chain.

The table below shows the 19 Kao Actions set in the Kao ESG Commitments and Actions, our ESG strategy, and their relationship to the value chain.

The items indicate areas where our impact on society is particularly large and where the expectations on us are similarly greater. These are high-priority areas for our business growth and increasing our corporate value.

Relationship between 19 Kao Actions and the Value Chain

Prioritized actions	Material procurement	Development / Manufacturing	Distribution	Sales	Use	Disposal / Recycling
Making my everyday more beautiful						
Improved quality of life				●	●	
Habits for cleanliness, beauty & health				●	●	
Universal product design				●	●	●
Safer healthier products					●	●
Making thoughtful choices for society						
Sustainable lifestyle promotion				●	●	●
Purpose driven brands	●	●			●	●
Transformative product innovation	●	●			●	●
Responsibly sourced raw materials	●					
Making the world healthier & cleaner						
Decarbonization	●	●	●	●	●	●
Zero waste	●	●	●	●	●	●
Water conservation	●	●	●	●	●	●
Air & water pollution prevention		●			●	●
Walking the right path						
Effective corporate governance	●	●	●	●	●	●
Full transparency	●	●	●	●	●	●
Respecting human rights	●	●	●	●	●	●
Inclusive & diverse workplaces		●	●	●		
Employee wellbeing & safety		●	●	●		
Human capital development		●	●	●		
Responsible chemicals management	●	●	●	●	●	●

The Kao ESG Commitments and Actions responds to global mega-trends

Kao is taking measures regarding the 19 Kao Actions set in the Kao ESG Commitments and Actions with a focus on the conditions in international society in which we operate.

Global mega-trends that we monitor (excerpts)

Digital Society

The advance of the digital society influences the shaping of virtual communities and people's actions and values. Consumers are predicted to demand greater amounts of information when selecting products due to this trend. Part of "Making thoughtful choices for society" in the Kirei Lifestyle Plan is strengthening communication and marketing by increasing the amount of product information available pertaining to sustainability.

Aging Society

Developed countries are already experiencing aging populations, and developing countries are also expected to have aging populations in the future. Universal design is a key solution to help people live more comfortably as they get older.

Ocean Plastic Pollution

The attention focused on the problem of ocean plastic pollution has grown sharply. This situation can be considered a risk for us, since we use plastics in our packaging, but by implementing the Kao Actions of "Zero waste" and "Transformative product innovation," we can contribute to society by reducing packaging and building a recycling system, leading to increased corporate value.

Climate Change

Climate change has been one of the world's highest priority issues for some time and is receiving more attention with each passing year, from the increasing frequency of extreme weather events to the United States' withdrawal from the Paris Agreement. Suspended operations from extreme weather events and increased costs from strengthened regulations are risks, but the Kao Action of "Decarbonization" will help reduce CO₂ emissions not only in our own operations but also in the activities of consumers and our business partners. As such, by connecting lifecycle CO₂ reductions with "Sustainable lifestyle promotion" and "Purpose driven brands," we believe that more customers and consumers will choose Kao products and that we can increase our business opportunities.

Kao's ESG Commitments Pillar 1: Making my everyday more beautiful

Mid- to long-term targets

BY 2030

We will aim to empower all people, at least 1 billion by 2030, to enjoy more beautiful lives—greater cleanliness, easier aging, better health and confidence in self expression.



Kao's approach

"Making my everyday more beautiful" is one of the core concepts supporting the Kirei Lifestyle. It is a concept that has driven our business since our founding and inspires our belief that we can demonstrate our strengths to help solve problems.

Kao Actions



Social issues and mega-trends we are aware of

Cleanliness and hygiene serve as the foundation of daily life, but not everyone around the world can access their benefits. For example, just 39% of the world population has access to properly managed sanitary facilities (2015). Improving the quality of life remains a challenge even if material goods are abundant. In developed countries in particular, interest is rising in addressing needs associated with an increasingly aging population and the effects of chemical substances on health.

Specific approach methods

- Efforts through product design and product development with new concepts
- Consumer education and marketing activities
- Collaboration with stakeholders

Returns to society and business

Returns to society

Through our products, we directly offer individuals who make up society the following three stages of returns.

1. Pleasant, safer and healthier product use experience

Using products made with universal design considerations allows not just older consumers but all people to live each day with greater comfort. Using safer and healthier products leads to a sense of reassurance and well-being.

2. Adopting everyday habits for cleanliness, beauty & health

For example, when washing hands with a hand soap product becomes a habit that is performed at the right places and times, individuals can maintain cleanliness and hygiene, communicable diseases can be prevented, and a building block for a healthy life is created.

3. Improved quality of life

Quality of life encompasses more than just everyday habits. It is a measure of living life with dignity and being authentic to oneself. QOL creates beauty not just on the outside but also on the inside, and helps people have confidence in expressing their authentic self.

Returns to Kao

Efforts based on providing returns to society also lead to growth for Kao at the same time.

Products that offer tangible comfort, and products that contribute to greater safety and health, offer consumers reassurance and build trust, which in turn increases consumer loyalty. Consumers that then continue to choose Kao products as a result leads to our business growth.

Educating consumers about the products we offer is also key to adopting habits for better cleanliness, beauty & health.

Educational activities provide an opportunity to increase product awareness and allow products to be selected more effectively. Communication also builds trust and enhances our reputation. As such, we believe that communication contributes to business growth.

Trust is placed in us when our products and activities reach people on an emotional level and make people feel that their everyday is more beautiful. This positive reputation then extends from our current consumers to the people in their lives. A larger number of people using Kao products contribute to our business growth, and solid trust placed in us allows us to better withstand reputational risks, which also contributes to business risk reduction.

Through our efforts to create quality products and services, we will make everyday life more beautiful

for people around the world. The trust and value people place in us will help further grow our business and increase our corporate value.

Kao's ESG Commitments Pillar 2: Making thoughtful choices for society

Mid- to long-term targets

BY 2030

100% of Kao brands will make it easy for people to make small but meaningful choices that, together, will shape a more resilient and compassionate society.



Kao's approach

The Kirei Lifestyle is achieved when the people around you, communities and the wider society are sustainable. We at Kao recognize that the choices made by not only ourselves but also our stakeholders including consumers, corporate customers, and our suppliers make a big impact. We make responsible choices throughout the product lifecycle from procurement to transportation. At the same time, by ensuring that Kao brands are meaningful choices for consumers, we will contribute to the sustainability of society.

Kao actions

Through our efforts to resolve social issues with innovation, and by globally implementing a range of related activities, we will support consumers to lead a sustainable lifestyle. We have established the following Kao Actions concerning society, and are implementing them with a comprehensive approach.



Note: Purpose is an English word that means the reason to exist, the reason for being. At Kao Purpose Driven Brands are brands that not only deliver on the promise of the brand to the consumer and bring profit to the company, but also brands that contribute to a higher cause, creating positive impact to a broader society and people.

Social issues and mega-trends we are aware of

Ethical consumption, where goods and services created with considerations for the environment and society are chosen and consumed, is growing. In the area of environmental considerations, increasing the use of refill products for example can make a large contribution to resolving the recently highlighted problem of ocean plastic pollution. It is essential that we develop refill products that consumers and corporate customers will choose, expand their range of use, and educate people on the utility of refill products. We must also make responsible choices in all types of raw materials procurement. For example, selecting palm oil that does not cause deforestation when procuring this ingredient for detergents.

Specific approach methods

- Efforts through product design and product development with new concepts
- Consumer education and marketing activities
- Collaboration with stakeholders

Returns to society and business

Returns to society

Returns are provided to society through the four actions in the following three areas.

1. Support for consumers and customers to choose sustainable brands and products

Daily necessities are used every day by consumers the world over, and have a large impact on society. With this in mind, creating sustainable products that are chosen by consumers provides returns to every aspect of the environment and society. Creating sustainable consumption patterns is key to building a sustainable society.

As standards of living rise in Asia and elsewhere around the globe, rising mass consumption is a concern. We engage directly with consumers and can therefore make contributions to transforming product choices, how products are used, and disposal and recycling efforts. Responsible consumption is also an important element of the SDGs.

Business customers that use products offered by our Chemical Business also impact society, albeit to a varying degree depending on their scale, as the chemical products become part of their final products.

2. Building brand and product performance that is chosen by consumers and customers

Building brand and product performance that is chosen by consumers and customers is a must. The Kao Action of "Purpose driven brands" serves as a milestone for providing returns to society. We will create excellent products with "Transformative product innovation" based on the brand's purpose. By offering "Purpose driven brands," we will encourage our customers and consumers to make small but meaningful choices that,

together, make a big impact.

We have been making large investments in creating innovation unique to Kao for some time. We will continue to drive innovation that contributes to meaningful changes throughout society as a whole.

3. Responsibly sourced raw materials

Through responsible raw material procurement in the global supply chain that extends around the world, we will contribute to building a sustainable society.

Returns to Kao

These efforts based on providing returns to society will also lead to our growth.

Giving brands and products specific purpose that is reflected in their sustainable performance and brand policy will gain the understanding and support of consumers and customers; therefore increasing trust and customer loyalty. This in turn will prompt people to choose Kao products on an ongoing basis, leading to business growth.

In the information age, we believe that communicating information on brand and product sustainability to consumers and customers in a variety of forms will lead to business opportunities. Incorporating consumer and customer wishes and expectations from society into product development and manufacturing will further enhance the trust placed in us and our reputation, which connects to business growth.

"Transformative product innovation" will lead to differentiated Kao products and brands, which will build value propositions unique to Kao. We will drive business growth by offering Kao products with tangible innovation globally.

"Responsibly sourced raw materials" reduces risks in the procurement process. Procurement of non-sustainable materials is more than just a problem for society; it also invites the risks of receiving corrective instructions from the authorities or industry groups, suspension of production or product supply, and loss of business opportunities.

Our efforts will contribute to a sustainable society and at the same time contribute to the SDGs. We are confident that this will grow our business and increase our corporate value, which in turn will enhance our global presence.

Kao's ESG Commitments Pillar 3: Making the world healthier & cleaner

Mid- to long-term targets

BY 2030

100% of our products will leave a full life cycle environmental footprint that science says our natural world can safely absorb.

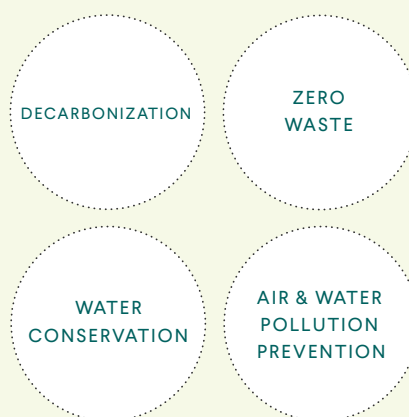


Kao's approach

"Making my everyday more beautiful" is supported by sustainable communities and the wider society. To complete the Kirei Lifestyle, the natural world that encompasses and supports communities and the wider society must also be healthier and cleaner.

Kao Actions

We have set the following Kao Actions for social issues involving the natural world and are implementing them with a comprehensive approach.



Social issues and mega-trends we are aware of

Adopted in 2015, the Paris Agreement creates a global framework for reducing greenhouse gas emissions. Nevertheless, average temperatures are continuing to rise, and the damage from frequent extreme weather events is only getting worse. As various research findings have become known, the problem of ocean plastic pollution has taken on urgency. Reducing waste and building a recycling system in the wider society will require cooperation from actors in various fields. We are now at the stage where limited efforts are beginning to ramp up, and it is expected to take time before we achieve an ideal situation. Water resource conservation is imperative not only to sustain life for human beings but for all living creatures. Water scarcity is predicted due to future population increases and climate change, and is a grave issue that can lead to conflict. We need high-quality water to manufacture our products, and consumers and customers also need high-quality water when using our products. Water is inseparable from our business activities. Some success with preventing air and water pollution has been achieved in developed countries, but pollution remains a serious issue in developed countries. Preventing pollution in living spaces is also attracting attention.

Specific approach methods

- Efforts through product design and product development with new concepts.
- Consumer education and marketing activities.
- Collaboration with stakeholders.
- Approaches to governments and international organizations.

Returns to society and business

Returns to society

1. Decarbonization

We are working to reduce CO₂ emissions in terms of the product lifecycle. The stages of use and raw material procurement account for approximately 80% of all Kao lifecycle CO₂ emissions. Therefore, by selecting raw materials with lower CO₂ emissions and offering products that require less water and less electricity during use, for example in laundry with washing machines, we can contribute to reducing CO₂ emissions in society.

While CO₂ emissions from production activities at our plants and from our offices do not account for a large proportion of our total emissions, we are still proactively working to reduce these emissions. We believe that actively working to reduce emissions as a leading consumer products company is not only beneficial for our own CO₂ reductions, but also increases the momentum to reduce emissions in society as a whole.

2. Zero waste

We are reducing the amount of plastic we use in our packaging, replacing the materials we use, and building collection and recycling systems. These are some of the ways we are contributing to resolving the problems of waste, its illegal dumping and landfill use, and ocean plastic pollution. The problem of ocean plastic pollution is a global-scale problem that requires the cooperation and collaboration of society as a whole. This is no easy task, but the returns will be great if we can collectively solve this problem.

3. Water conservation

The perspective of the product lifecycle is important for reducing water consumption. The product usage stage accounts for a major portion of water consumption in the lifecycle of Kao products—approximately 90% of the total. Kao supplies many cleaning products that require water during use, and consequently, producing water-saving products can lead to reduced water consumption throughout the world.

In addition, the use of water during production in plants also has a certain impact on the vicinity of the plant, so we are taking action to reduce water consumption during production as well.

4. Air & water pollution prevention

Kao products use chemical substances including natural compounds. We are reducing air and water pollution from chemical substances produced from manufacturing processes and product use, and minimizing the impacts on human health and the natural world. Some of the specific initiatives we are implementing are reducing gas emissions and improving water treatment technologies during manufacturing processes, and ensuring the biodegradability of cleaning ingredients.

Returns to Kao

These efforts rooted in providing returns to society will also lead to our growth at the same time.

Environmental problems have a large negative impact on society. Therefore, our various actions to reduce environmental impacts reduce our risks and lead to business growth.

It is also important that we identify region-based risks that may create serious environmental impacts in local areas. Controlling these risks and enhancing our credibility and reputation through robust governance expands opportunities for consumers and customers to choose Kao brands and products.

Environmental impacts are a result of fuel, water, chemical substance, or other input. Efforts to reduce these inputs also lead to reduced costs.

Through these actions, we are contributing to maintaining a healthier and cleaner world. At the same time, we are gaining an understanding of how natural capital leads to business growth and improves our corporate value, and using this understanding in management decisions.

Foundations of Kao's ESG commitment: Walking the right path

Kao's approach

Walking the right path is the supporting foundation for the Kirei Lifestyle. We will create corporate governance systems and a corporate culture so that all Kao employees can walk the right path at all times. By ensuring that our business activities are conducted with sincerity and integrity, we will help people around the world lead beautiful lives.

Kao Actions

We have established and are implementing the following Kao Actions for governance and our corporate culture.



Social issues and mega-trends we are aware of

The importance of information disclosure based on transparency is increasingly expected in both financial and non-financial areas. For example, the publication of the recommendations from the FSB Task Force on Climate-related Financial Disclosures illustrate that specific, detailed non-financial information has become meaningful input for decisions related to investing and corporate ratings.

Human rights involve contributing factors that are not readily solvable, such as poverty, political instability, and migration of the labor force. Many of these issues must still be addressed. Risks are rising due to the increasingly global nature of company activities and the growth of the supply chain.

Returns to society and business

Returns to society

"Walking the right path" is the foundation that supports the three pillars of "Making my everyday more beautiful," "Making thoughtful choices for society," and "Making the world healthier & cleaner." By walking the right path, we will earnestly carry out the Kao Actions set for each of these three pillars and further build on them, which will create strong returns for the wider society.

Effective corporate governance helps us achieve efficient, sound, fair, and highly transparent management, while full transparency encourages us to communicate our situation and philosophy to society and to embrace expectations from society in what we do.

The actions involving employees and workplaces are essential to ensuring we carry out our basic activities as well as actions that will bring about social transformation. Innovative activities require the capacities of highly skilled and motivated employees.

Furthermore, responsible chemicals management ensures that we can supply safe and reassuring products to society by reliably managing chemical substances responsibly as an enterprise that provides value through chemicals.

Each of the Kao Actions for "Walking the right path" is foundations of the three pillars of the Kirei Lifestyle Plan will contribute to improving individuals' lives, further building on our actions for society, the environment, to realize a sustainable world.

Returns to Kao

Reliable implementation of effective corporate governance and full transparency provide returns to Kao, namely reduced risk, increased trust, and an enhanced reputation.

Communicating accurate information to consumers about our brands and products leads to greater reassurance and trust, and expands opportunities for consumers and customers to choose Kao brands and products.

Ensuring transparent corporate governance and creating a system that allows corporate governance oversight by external groups play major roles in strengthening effective corporate governance. This allows us to be a good corporate citizen.

Human capital is indispensable to elevating who we are and what we do. Through the Kao Actions involving employees and workplaces, we will develop highly skilled and motivated employees, develop our global operations necessary to achieve our vision by 2030, and promote innovation, which will lead to business growth.

When consumers and customers purchase Kao products with reassurance and confidence as a result of our responsible chemicals management, this increases the value of Kao through offering value by means of chemicals and expands business.

In addition, by appropriately disclosing our company activities based on "Walking the right path," stakeholders can gain a deeper understanding of our ESG activities. This encourages cooperation on efforts for a sustainable society based on relationships of mutual trust. Proper assessments of our ESG activities from stakeholders raise the level of our activities and drive business growth.

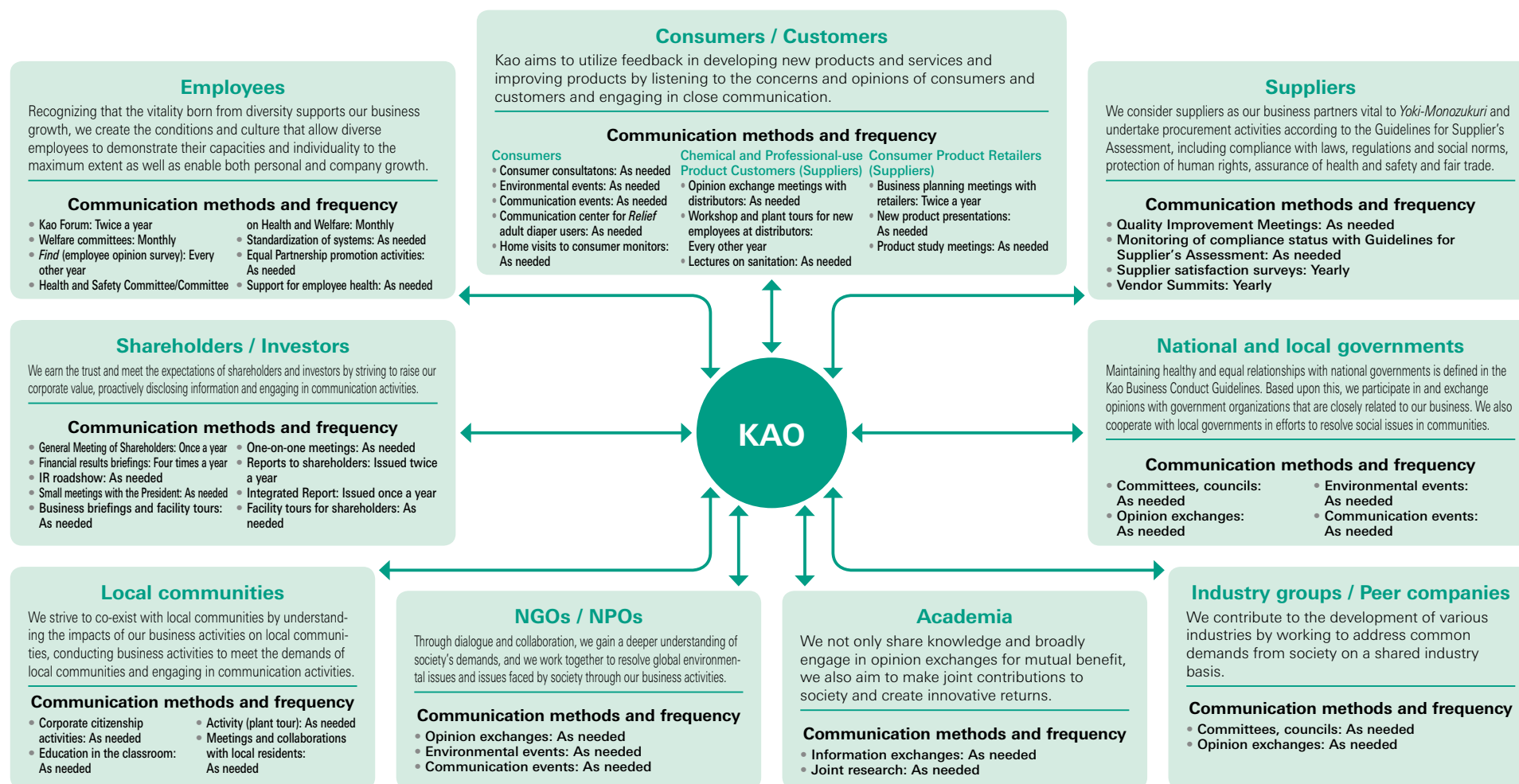
Stakeholder Engagement 102-40, 102-43

Kao's important stakeholders include consumers and customers as well as suppliers, employees, local communities, national and local governments, non-governmental and non-profit organizations (NGOs/NPOs), academia, industry groups and peer companies, and shareholders and investors.

In the Kao Way, our corporate philosophy, we define our vision as this:

"We aim to be the global group of companies that is closest to the consumers and customers in each market, earning the respect and trust of all stakeholders."

Through two-way communication with stakeholders, we deepen mutual understanding and provide information useful to society and daily life, and use feedback we receive to improve our corporate activities and services.



2018 Our initiatives

* Activities aligned with the Kirei Lifestyle Plan will be reported in April 2020.

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2018 Our initiatives

Conservation

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Kao's approach

We have committed to contribute to social sustainability by giving thorough consideration to environmental conservation and human safety in every aspect of our operations, including product development, manufacture, distribution, sales, usage and waste disposal.

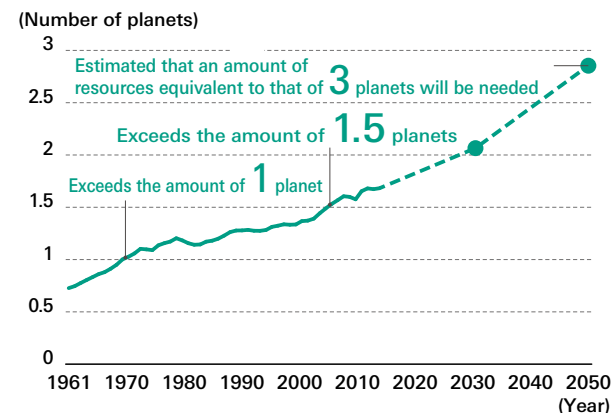
Kao's creating value to address social issues

Social issues we are aware of

Today humanity uses the equivalent of 1.5 planets to provide the resources we need to sustain our current lifestyles. If we continue to consume at this pace, in 2050 more than three planets will be needed. On the present trajectory, nature is being destroyed and life-threatening events are occurring all over the world. Environmental sustainability is hardly feasible with our current lifestyle. People must change their lifestyles, such as starting to engage in ethical consumption.

Specific environmental issues include climate change, resource efficiency, plastic packaging, and the water security. These resource cycle issues are recognized throughout the world at all levels of society and efforts are underway to help mitigate and adapt to circumstances and establish a social consensus. The need to minimize the most serious adverse effects of chemical substances on human health and the environment is growing more urgent every year. Also, the combined effect at multiple levels is resulting in many recorded cases of loss of biodiversity.

Estimated Transition of Ecological Footprint



© 2018 Global Footprint Network. National Footprint Accounts, 2018 Edition.

Supporting TCFD* Recommendations

In March 2019, Kao announced its support of the recommendations of The Task Force on Climate-related Financial Disclosures (TCFD) to analyze scenarios of and disclose information on the impact of climate change on corporate finances.

We recognize that climate change is a major risk as well as an opportunity for growth for companies as

they continue to do business into the future. We believe that disclosing information about our activities and engaging in dialogue with various stakeholders are key actions for both the planet and the sustainable growth of Kao.

We participate as a member of the Study Group on Implementing TCFD Recommendations for Mobilizing Green Finance through Proactive Corporate Disclosure launched by METI in 2018. We contributed to the study group's formulation of the Guidance on Climate-related Financial Disclosures designed to provide commentaries and introduce reference case examples for implementing the TCFD Recommendations and provide "sector-specific perspectives."

* TCFD (The FSB Task Force on Climate-related Financial Disclosures)
Privately led task force established by the Financial Stability Board in response to a request from the G20 in 2015.

TCFD | TASK FORCE ON CLIMATE-RELATED FINANCIAL DISCLOSURES

Initiatives for the environment 102-12, 102-15, 103-1

Kao's approach

Kao's creating value

We believe that it is essential to address environmental issues at all stages of the product lifecycle and we focus on the four key issues listed below.

To address global warming, we supply products designed to consume less energy and less water when being used.

Our products offering high resource efficiency include disposable diapers made with a significantly reduced amount of raw materials.

To save water, we deliver products that are highly degradable in drainage after use, requiring less water consumption.

With regard to chemicals, some products that we supply use a significantly reduced amount of chemical substances and other products use safer chemical substances.

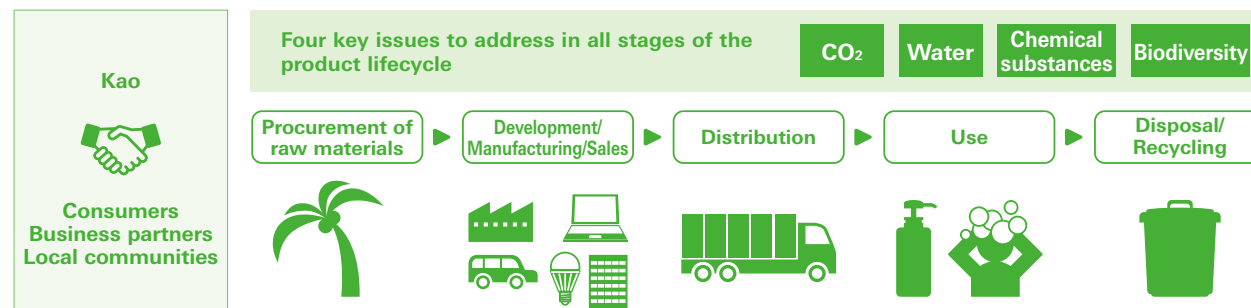
In terms of biodiversity, where the effects are multitiered, we have been early to commit publicly to zero deforestation and we will demonstrate leadership in this area by engaging genuinely with stakeholders to achieve this goal.

In Japan, where 40 our products on average are used per household in a year, our products have a significant impact, so we believe that we can contribute to changing consumers' lifestyles through our products and educational activities.

Risks related to realization of our vision by 2030

To achieve sustainable lifestyle where resource consumption does not exceed the biological production of Planet—one-planet biocapacity—

Four key issues



requires manufacturers to carry out manufacturing with low environmental impact in a way that will lead to changes in lifestyles while satisfying the needs of consumers. We believe that it is necessary to properly convey this goal to consumers. We are focusing on technological development that can bring about innovations to make such change possible. Stakeholders outside of the company must be able to properly understand these corporate efforts or they will not recognize the contributions the company is making to social sustainability; a lack of understanding can lead to reputational damage and the loss of corporate value. Likewise, it will not be possible to achieve our goals if the technology we develop is unable to meet the needs of consumers or if we fail to develop the technology in the first place.

Opportunities related to realization of our vision by 2030

Consumers are expected to become more ethical in their consumption patterns in the future. Creating products for ethical consumption offers a substantial business opportunity and we already have a large

number of ongoing research and development projects in this area. We are working with stakeholders to gain an understanding of the latest trends in ethical consumption and to encourage this type of consumer behavior. Such actions we believe will lead to increased sales and we are also proactively disclosing this to outside stakeholders.


In 2018, we redesigned its ESG promotion framework and established an ESG Division to better integrate these activities and carry them out faster to generate higher corporate value.


Contributions to the SDGs



Policies

In the Kao Environmental Statement and “eco together” environmental initiatives, we pledge our commitment to environmentally responsible management and to conducting environmental conservation efforts together with customers, suppliers, production outsourcing partners, local communities, NGOs, governments, and other stakeholders across the entire product lifecycle of Kao products from materials procurement to manufacturing, office work, distribution, usage, product disposal, and recycling.

 → Kao Environmental Statement
www.kao.com/global/en/sustainability/environment/statement-policy/statement/

 → “eco together”
 p. 37 Conservation > CO₂ > Policies

We specify the efforts we are taking to save resources and energy, and reduce waste in our Basic Policies on Environmental Measures, and define our activities policy in the Kao Responsible Care Policy. These policies apply to all of our business activities including M&A and entering into new projects.

Furthermore, our Environmental Management Regulations, which define specific activity items, also stipulate that environmental impact assessments must be conducted before installing new facilities or setting up a new plant.



→ Basic Policies on Environmental Measures
www.kao.com/global/en/sustainability/environment/statement-policy/policy/philosophy-policies/
 → Kao Responsible Care Policy
www.kao.com/global/en/sustainability/environment/statement-policy/policy/responsible-care/

Framework

The management of environmental opportunities is managed by the ESG Committee and its subordinate ESG Promotion Committee. Risk is managed by the Internal Control Committee and its subordinate Risk and Crisis Management Committee and Responsible Care Promotion Committee.



→ p. 9 Kirei Lifestyle Plan > Kao's ESG Strategy > ESG promotion framework



→ p. 195 Governance > Responsible care activities



→ p. 202 Governance > Risk and crisis management

Education and promotion

If we are to build a sustainable world, we need to develop and deliver products with less impact on the environment and raise consumer awareness toward choosing them. 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 chance to learn about environmental issues through various programs and actively engage in environmental conservation activities of their own accord.

Collaboration with stakeholders

To achieve one-planet sustainable lifestyle, we consider the top priority to be changing people's lifestyles, which includes consumer awareness, consumer behavior and product selection. Based on our Declaration of Consumer-orientation, we carry out awareness-raising activities to promote lifestyle change by actively interacting with consumers while collaborating with a wide range of stakeholders.



→ Declaration of Consumer-orientation
www.kao.com/jp/corporate/sustainability/declaration/customer-first/ (Japanese)



→ p. 24 Stakeholder engagement

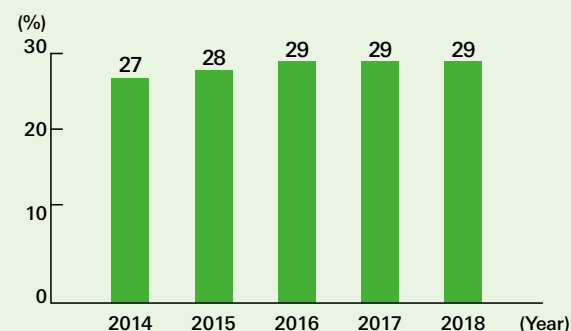
Performance in 2018

Expansion of products to display the "eco together" logo

Products with less environmental impact that have passed our original rigorous certification standards display the "eco together" logo.

The 2018 sales percentage of products displaying the "eco together" logo was 29%, the same as last year.

Sales percentage of products displaying the "eco together" logo (Consumer products in Japan)



→ "eco together" logo display standards
www.kao.com/global/en/sustainability/environment/statement-policy/eco-friendly-products/eco-together-logo/

→ List of products displaying the "eco together" logo
www.kao.com/jp/corporate/sustainability/environment/phase/eco-together-products.html
 (Japanese)

Opportunities for environmental education and study

Educational seminars on the environment

We hold the seminars to build awareness and understanding of the Kao Environmental Statement. In new employee group trainings, 181 new employees took these seminars, along with 330 current employees took these seminars in group trainings held according to employee rank and division.

Employees serve as staff at environmental exhibitions

We have employees participate as staff at environmental exhibitions, providing information to build understanding of our environmental initiatives. In 2018, 153 employees participated in these exhibitions.

Education through ISO 14001 and other environmental management systems

We provide this training to all employees including new and transferred employees at least once a year.

Education under the Responsible Care (RC) promotion framework

Under this framework, the Kao RC Promotion Committee Secretariat and staff in promoting divisions conducted educational activities for employees and employees at partner companies as needed. In 2018, The secretariat held educational activities 49 times for a total of 1,212 participants (23 times in Japan with 1,043 participants; 26 times in Asia, the Americas and Europe with 169 participants).

Volunteering in environmental activities

Recognizing that it is important in raising environmental awareness among employees for them to extend beyond in-house education to participate in environmental activities with external stakeholders, we encourage volunteering in community environmental activities.

CDP* evaluation

Our initiatives for the environment have been highly rated by the CDP.



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

CDP evaluation

Area	2016	2017	2018
Climate change	A-	A-	A-
Forests (Timber)	A-	A-	A-
Forests (Palm Oil)	A-	A-	A-
Water Security	A	A-	A
Supplier engagement	B	A	A



→ CDP results

CDP 2018 Climate change
www.kao.com/content/dam/sites/kao/www-kao-com/global/en/sustainability/pdf/cdp2018-001.pdf

CDP 2018 Forests
www.kao.com/content/dam/sites/kao/www-kao-com/global/en/sustainability/pdf/cdp2018-003.pdf

CDP 2018 Water Security
www.kao.com/content/dam/sites/kao/www-kao-com/global/en/sustainability/pdf/cdp2018-002.pdf

Our initiatives

Product design with environmental considerations

We employ the following two systems to ensure that our products are designed with environmental considerations.

One system is to verify the environmental impact of our products before releasing them into the world, and the other is to communicate to consumers that the products are environmentally friendly by displaying the “eco together” logo on the products. These systems have cleared our rigorous certification standards.

For the major product categories, we evaluate multifaceted environmental aspects in an integrated manner and analyze the characteristics of the environmental impact to facilitate product development.

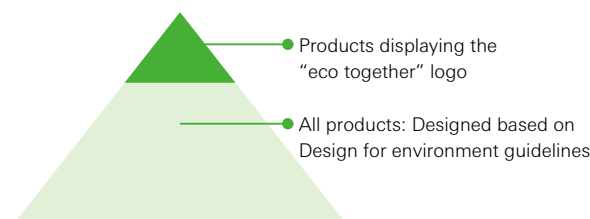
1. Design for environment guidelines

When deciding to launch new and improved products, we verify that the products satisfy our environmental standards. How this is implemented and the standards are defined in our Design for environment guidelines. These guidelines also define how assessments of CO₂ emissions across the entire product lifecycle (LCA) are conducted.

2. “eco together” logo display standards

Our products with less environmental impact display the “eco together” logo. This shows consumers that the product achieves a high level of environmental performance and can be used as a guide at the time purchase. Our rigorous certification standards require products to reduce lifecycle CO₂ emissions compared with comparable standard products and clear at least one of the certification criteria that we have set.

Environmental standards for new and improved products



→ Design for environment guidelines
www.kao.com/global/en/sustainability/environment/statement-policy/eco-friendly-products/designing/

→ “eco together” logo display standards
www.kao.com/global/en/sustainability/environment/statement-policy/eco-friendly-products/eco-together-logo/

Environmental impact assessments of products using the LCA framework

The LCA framework comprehensively assesses the impacts of a product on various aspects of the environment. Receiving advice from Norihiro Itsubo, Professor, Faculty of Environment Studies, Tokyo City University, we are using LIME2* (second version of the Japanese lifecycle impact assessment method), which enables quantification of comprehensive environmental impacts. By assessing multiple environmental aspects in an integrated manner, this method can identify hot spots such as a large impact on water resources even though CO₂ emissions are low. We conduct environmental impact assessments for 35 major product categories and gain an understanding of the balance of environmental aspects to benefit product development.

* ILCD Handbook, p. 33–36.

<https://eplca.jrc.ec.europa.eu/uploads/ILCD-Handbook-LCIA-Background-analysis-online-12March2010.pdf>

Raising environmental awareness through the Kao International Environment Painting Contest for Children

"eco together"
with customers

"eco together"
with society

We have been holding the Kao International Environment Painting Contest for Children since 2010 with the wish of reaching people around the world to think about the environment and to take actions in their daily life. In the contest, children think seriously about the future of the Earth's environment and steps we can take to conserve it in our daily lives, and then express their ideas in paintings, which we communicate to large numbers of people.

The 9th Kao International Environment Painting Contest for Children

In 2018, we received 12,563 entries from children in 44 countries and regions around the world (848 entries from Japan, 10,812 entries from Asia Pacific, 134 entries from the Americas, 254 entries from Europe, 509 entries from the Middle East, and 6 entries from Africa). After a preliminary screening by Kao's designers, a final screening was conducted by a panel of judges from inside and outside Kao, 1 entry was selected for the "eco together" Planet Earth Grand Prix, 8 for the "eco together" Kao Prize, and 23 for an award of excellence. The 32 prizewinning works were exhibited at the Kao booth at EcoPro 2018 held in December, and were seen by many visitors. On the final day of the exhibition, the top nine winners were invited to an awards ceremony. In an interview session after the ceremony, the winners talked about the environment in their home country or region as well as the message of their painting.



Commemorative photo of the awards ceremony

Painting exhibitions in collaboration with NPOs, governments and business partners

We seek out ways to exhibit current and former prizewinning paintings to communicate to as many people as possible the messages of the children from around the world through their paintings.

At Kao, we held temporary exhibitions of the prizewinning paintings at the Kayabacho Head Office, Sumida Office, Osaka Office and Shinagawa Training Center and Arida Training Center. The paintings were also exhibited at our offices in China, Indonesia, Thailand and Vietnam, providing the chance for many employees to see them. We also exhibit paintings at permanent exhibitions at all 10 plants in Japan as well as at PT Kao Indonesia's Karawang Plant and Kao Corporation Shanghai Plant, where the paintings have been viewed by approximately 50,000 visitors and guided tour participants.



Exhibition at PT Kao Indonesia's office

Outside Kao, we are in the second year of lending paintings free of charge to environment-related facilities operated by government bodies and NPOs and NGOs throughout Japan, with the NPO BeGood Cafe serving as the secretariat of the exhibition. In 2018, a total of 21 facilities and groups borrowed paintings, which were viewed by more than 40,000 people.



Exhibition at Eco Messe Kasugai

We are also promoting the use of environmental events as content. Of the environmental events held jointly with business partners and government bodies, Kao CMK exhibited paintings at 12 locations, having approximately 7,000 visitors. Kao (China) Holding and Kao (Taiwan) also incorporate exhibits of paintings into their environmental awareness campaigns in their respective regions.

Expanding experience-based environmental awareness-raising activities in the next generation

"eco together"
with customers

"eco together"
with society

Raising the environmental awareness of the next generation of consumers is vital for the global environment, for society and for Kao. That is why we promote experience-based awareness-raising activities for elementary and junior high school students and university students, while taking into account what approaches would be most effective for each age group and region.

Developing and holding experience-based educational programs about the environment through collaborations

In 2018, the Society for Sustainable Food and Life Styles (established by Kao, Ajinomoto Co., Inc. and E-Square Inc.) conducted a three-day experience-based educational program called The Earth's Future through Food and Living—Summer Challenge for 21 sets of 5th-grade students and their parents in Kawasaki City in cooperation with the city government.

Through facility tours, experiential activities and workshops at Kawasaki City municipal facilities and at Kao and Ajinomoto plants, and by keeping journals for about four weeks, the parents and children consider how environmental issues are connected to their daily life and consider modifying their lifestyles. In this third year, in addition to the NGOs and NPOs we have so far cooperated with, we promoted the participation of university students and cooperated with elementary schools to add new perspectives, the activities have thus become better established in the community.



Day 2 of the program (at Kao's Kawasaki Plant)

Developing and holding environmental awareness-raising program in junior high schools

Since 2016, PT Kao Indonesia has been providing education on the environment and hygiene through the Anak Kao program at elementary schools jointly with the NGO YCAB Foundation. In 2018, the focus was changed to junior high school students, and a new program, Remaja Kao, was launched to provide education on the environment and self-esteem. The program was held in Jakarta and the districts with Kao plants, Cikarang and Karawang, reaching 2,800 children in 25 junior high schools.

Communication activities at the Kao Eco-Lab Museum

The Kao Eco-Lab Museum uses experiential content to engage in direct dialogue with consumers and many other stakeholders throughout the year.

Approximately 11,500 people visited the museum in 2018. Of this number, there were visits from over 100 schools—elementary, junior high and high schools. We also held 16 tours that offer experiential and dialogue content for community residents and parents and children.

Awareness-raising activities at EcoPro 2018

In 2018, we introduced Kao's activities under the theme of Kirei for People and the Planet. We communicated the importance of the environment and good hygiene and raised awareness of the SDGs. The awareness-raising

activities were aimed at elementary school and junior high school students who will be the main consumers in the near future. Interactive displays and hands-on workshops were designed to be memorable and to help children take a fresh look at lifestyle. The number of visitors exceeded 10,000.



The Kao booth with the theme of Kirei for People and the Planet



Communication between employees and visitors

Experience-based SDG-awareness-raising program developed together with university students

We sponsored a student-run event Sustainable Week 2018, held at the Biwako-Kusatsu Campus of Ritsumeikan University in October. At this event, students raised awareness of the SDGs through events involving the university and local area.

At the pre-event in June, our employees joined high school students, university students and Kusatsu City staff to create plans to experience the SDGs. We also cooperated with this October event and participants experienced SDGs through planned events.

We will use the knowledge gained as a model for future community-based awareness-raising activities carried out by the next generation of consumers themselves.

Communication targeting consumers at stores

"eco together"
with customers

"eco together"
with partners

"eco together"
with society

To communicate the environmental value of Kao products to consumers and promote "eco together," Kao Group Customer Marketing Co., Ltd. holds environmental events together with distribution companies and local governments on the theme of conserving water and electricity and reducing waste. The wide ranges of fun, experience-based events include exhibits of prizewinning works from the Kao International Environment Painting Contest for Children and attract the attention of consumers. In 2018, these events were held at 60 stores and other venues nationwide in Japan, attracting over 30,000 visitors.

For Environment Month in June, we also initiated the Creating Kirei Eco Style Campaign, implemented in a total of 12,000 stores, which combined presentations, using Kao products, of useful information relating to daily living activities with an introduction to our environmental initiatives.

Seventh year of water conservation campaign in cooperation with the Chinese government

"eco together"
with customers

"eco together"
with society

Kao (China) has conducted the Nationwide Cleanliness and Water-saving Initiatives jointly with the Center for Environmental Education and Communications (CEEC), part of the State Environmental Protection Administration (SEPA) of China, since 2012.

These initiatives encourage people in China to conserve water with the slogan of "Save 10,000 liters of

water annually per household." In China, the shortage of water resources has become a serious problem. The Chinese government's promotion of the importance of conserving water aligns with Kao's wish to promote environmental activities that can be undertaken together with consumers in China, through sales of water-saving laundry detergent. We have been jointly implementing related initiatives in collaboration with the Chinese government for seven consecutive years.

The campaign begins in March each year, with informational sessions held in various cities on conserving water and the importance of water resources. The initiatives were expanded in 2015 to include awareness-raising events held at universities in China. In 2018, these events were held at 113 universities in 27 provinces including Guangzhou, Xi'an, Liaoning, Anhui, Zhejiang and Inner Mongolia.

An environmental protection contest for university students in China has also been held since 2015. In 2018, 149 entries were received from all over the country, from which we selected 64 to be implemented. The university students actively proposed and executed their ideas themselves, so the contest clearly helped to raise environmental awareness.

In June, a closing ceremony was held at a university in Yunnan, with awards presented to the contest winners.

Gathering wisdom and researching the future washing

"eco together"
with society

Washing is an essential activity for human beings to have clean, comfortable living conditions. In the world today, washing uses a large amount of raw materials, water and energy. With the large amount of wastewater and trash that societies generate, it is unclear whether

our current systems for washing will be sustainable for people around the world in the future.

Kao, Future Earth,*¹ and The University of Tokyo Integrated Research System for Sustainability Science (IR3S)*² launched the Future of Washing Initiative in 2018. The initiative is creating a platform to explore innovative and sustainable ways of washing, aiming to encourage people around the world to lead sustainable, clean, and comfortable lives. The initiative will gather wisdom from industry, academia and citizens across boundaries of traditional business domains and academic fields, and will discuss and propose washing solutions for the future.

First, with a focus on the laundry, acknowledging the existence of diversity and sharing that understanding, the discussion can be expanded to incorporate the perspectives of lifecycles and social environments. As part of the initiative, forums for the exchange of opinions and information will be built—to include seminars, events and SNS platforms—and supporters gathered from all over the world.

On December 7, 2018, a public forum launching the initiative was held, entitled "Let's think together! Sustainable laundry for the future" with over 140 participants.

*1 Future Earth

An international joint research platform for the realization of a sustainable global society, launched in 2015 at the initiative of UN agencies and other groups. The organization emphasizes collaboration between the research community and various stakeholders in society. Japan plays an active role in both research promotion and executive management.

*2 The University of Tokyo Integrated Research System for Sustainability Science (IR3S)

Established in 2005 to maintain and develop the world's top research centers on sustainability science. The organization aims to build an international meta-network that links research and educational institutions in developed and developing countries.

Kao's approach

In the Paris Agreement adopted in 2015, citizens of the Earth agreed to work together toward pursuing efforts including keeping the global rise in temperature to less than 2°C above pre-industrial levels, reducing the temperature to 1.5°C, improving adaptability, and so on. As a citizen of the Earth, we at Kao are promoting efforts to reduce our impact at all stages of the product lifecycle with our business partners and consumers. Furthermore, we offer products that contribute to adaptability.

Kao's creating value to address social issues

Social issues we are aware of

According to the World Meteorological Organization, in 2018 the average global temperature rose by 0.98°C compared to levels prior to the Industrial Revolution, and has been at an all-time high for four consecutive years since 2015. It was reported in the 1.5°C Special Report announcement by the IPCC* in October of 2018 that if the current situation continues, there is a high likelihood that temperatures will rise above 1.5°C between 2030 and 2052, and that in order to keep temperatures from rising above 1.5°C, it would be necessary to reduce total CO₂ emissions to zero by around 2050, among other measures.

Unusual weather is already occurring due to global warming, and with this threat expected to grow in the future, the immediate implementation of measures toward adaptation is required.

* 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.

Kao's creating value

In order to reduce greenhouse gas emissions associated with our business activity, we have set reduction targets at our plants and other facilities, and are continuing activities which improving energy efficiency and turning energy used into green energy. Additionally, as part of our product lifecycle analysis, we are carrying out activities that reduce raw material procurement and use during necessary stages, waste during each stage, as well as greenhouse gas emissions.

We are working to enrich the lives of people and contribute to the sustainability of society by providing products that respond to changing consumer lifestyles in light of climate change, and that are environmentally conscious in response to transitional and physical risks.

Contributions to the SDGs



Risks and opportunities related to realization of our vision by 2030

We have developed its own scenario based on the 2°C scenario for assessing risk and opportunity.

In addition, formulating brief 1.5°C scenario*¹ and NDC scenario*², the company assesses the qualitative magnitude of risk and opportunity changes regarding the 2°C scenario.

*1 1.5°C scenario

Scenario based on the emission path shown in the IPCC 1.5 Special Report.

*2 NDC scenario

Scenario based on the GHG reduction target decided by participating countries based on Paris Agreement Article 4. The NDC is the draft of Intended Nationally Determined Contribution (INDC) submitted to the UNFCCC secretariat (UN Climate Change secretariat) before ratification of the Paris Agreement. Its implementation is required after 2020.

Risks and opportunities related to realization of our vision by 2030

Items			2°C scenario			2°C scenario comparison	
			Short-term (until 2020)	Mid-term (until 2025)	Long-term (until 2050)	1.5°C scenario	NDC scenario
Risks	Transitional risk	Policies, legal restrictions	Minor	Major	Major	•No change to items where effort is necessary. •Greater impact on transitional risk. •Lesser impact on physical risk.	•No change to items where effort is necessary. •Lesser impact on transitional risk. •Greater impact on physical risk.
		Technology	Minor	Major	Major		
		Markets	Medium	Major	Major		
		Reputation	Minor	Medium	Major		
	Physical risks	Acute	Medium	Major	Major		
		Chronic	Minor	Medium	Major		
Opportunities	Resource efficiency	We continuously carry out the following activities, aiming to utilize resources more efficiently and reduce operating expenses. • Energy-saving activities at plants and on location and during the transport process / • Recycling waste created on location / • Enhancing energy use efficiency on location	Medium	Major	Major	•Lesser impact on physical risk. •Generally a greater impact on opportunity.	•Greater impact on physical risk. •Generally a lesser impact on opportunity.
	Energy sources	By expanding renewable energy use, we can achieve CO ₂ and cost reductions in several countries. We have actively introduced solar panels and begun purchasing renewable energy-derived power, helping to reduce operating costs. Through the use of government subsidies, it is also possible to control investment.	Minor	Minor	Medium		
	Products, services	As part of its products that contribute to mitigating climate change, we offer consumers film packages which significantly reduce the amount of plastic, products like diapers that retain product functionality while reducing material usage, and water-saving products which include laundry detergents. Professional-grade products include various cleaning agents that prevent infectious disease, and industrial products such as low temperature fixing toner. Other products that contribute to mitigating climate change include concrete additives which will grow in demand with future infrastructure development as well as others like metal casting products.	Medium	Major	Major		
	Markets	Demand for products that contribute to greenhouse gas reduction is expected to grow. Additionally, as SDGs recognition continues to grow, we expect lifestyles, including product selection behavior, to move in a more ethical direction and to change as consumers' consumption habits shift. 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 antiperspirants, etc. are expected to increase during summer.	Minor	Medium	Major		
	Resilience	Regardless of fossil or plant origin, we believe that unless we reduce our use of resource, it will not be possible to realize a One Planet Living vision for environmental sustainability. We are promoting the technology development and use of certified raw materials to reduce energy consumption, shift to renewable energy use, and reduce raw material usage.	Minor	Medium	Major		

Minor impact level: very little impact, Medium: small impact, Major: large impact

Policies

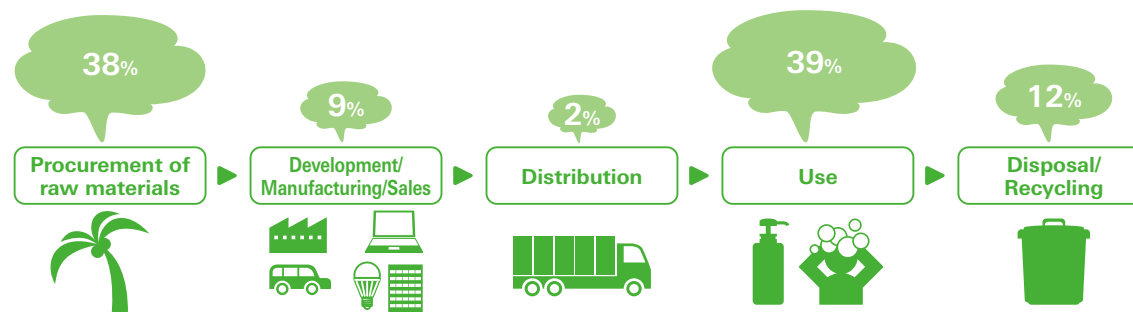
We are working toward climate change mitigation and adaptation at each stage of the product lifecycle. Mitigation is comprised of activities that contribute to the reduction of greenhouse gas emissions in order to reduce rising temperatures to less than 2°C or even 1.5°C. Adaptation is comprised of activities preparing for the impact of climate change, as temperatures have currently risen to almost 1°C higher than pre-Industrial Revolution temperatures and are expected to further rise.

We regard our amount of emissions (scope 1 + 2) associated with our own locational and sales activities as the most important issue, and are making an effort to reduce this amount.

Within each stage of Kao product lifecycles, the use stage accounts for the largest ratio at 39%, with the raw materials procurement stage accounting for the second-largest ratio at 38%. The ratio of direct CO₂ emissions from facilities such as Kao plants accounts for a relatively small 9%, and it is notable that the emissions that are not direct emissions accounts for the larger ratio. The reason why we announced in the Kao Environmental Statement our commitment to contribute to environmental conservation at all stages of the product lifecycle in 2009 was that we gained this result of our analysis.

At the same time, we are taking steps to reduce CO₂ emissions as part of its "eco together" activities in collaboration with various stakeholders.

Ratio of CO₂ emissions at each stage of the Kao product lifecycle



* Performance in 2018

"eco together"

"eco together" with consumers

In order to reduce CO₂ at use stage, it is necessary not only to improve product functionality, but to use products in accordance with design specifications. For example, ultra-concentrated liquid laundry detergent, a water-saving product, requires only a small amount with each use and can clean with a single rinse, but it will not lead to water-saving and energy-saving expectations unless customers are aware of its usage.

Therefore, we strive to develop and provide high-performance products combined with awareness-raising activities.

"eco together" with business partners

We believe that sharing our views on the raw material (including contract manufacturers), transportation, and disposal stages will lead to a greater effect, and are promoting our "eco together" activities with several business partners.

"eco together" with society

Through introducing our efforts to reduce greenhouse gas emissions through the products it implements to society as well as working with it and seeking social approval, in addition to promoting activities that fall in line with government administration and other companies, our company believes that it can achieve a greater effect.

Framework

Risk management 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. Both of these committees are chaired by the President and CEO.

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 Promotion Committee of Corporate Strategy Division is in charge of 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 CO₂ 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 CO₂ 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 and reputational risks, meets four times a year.

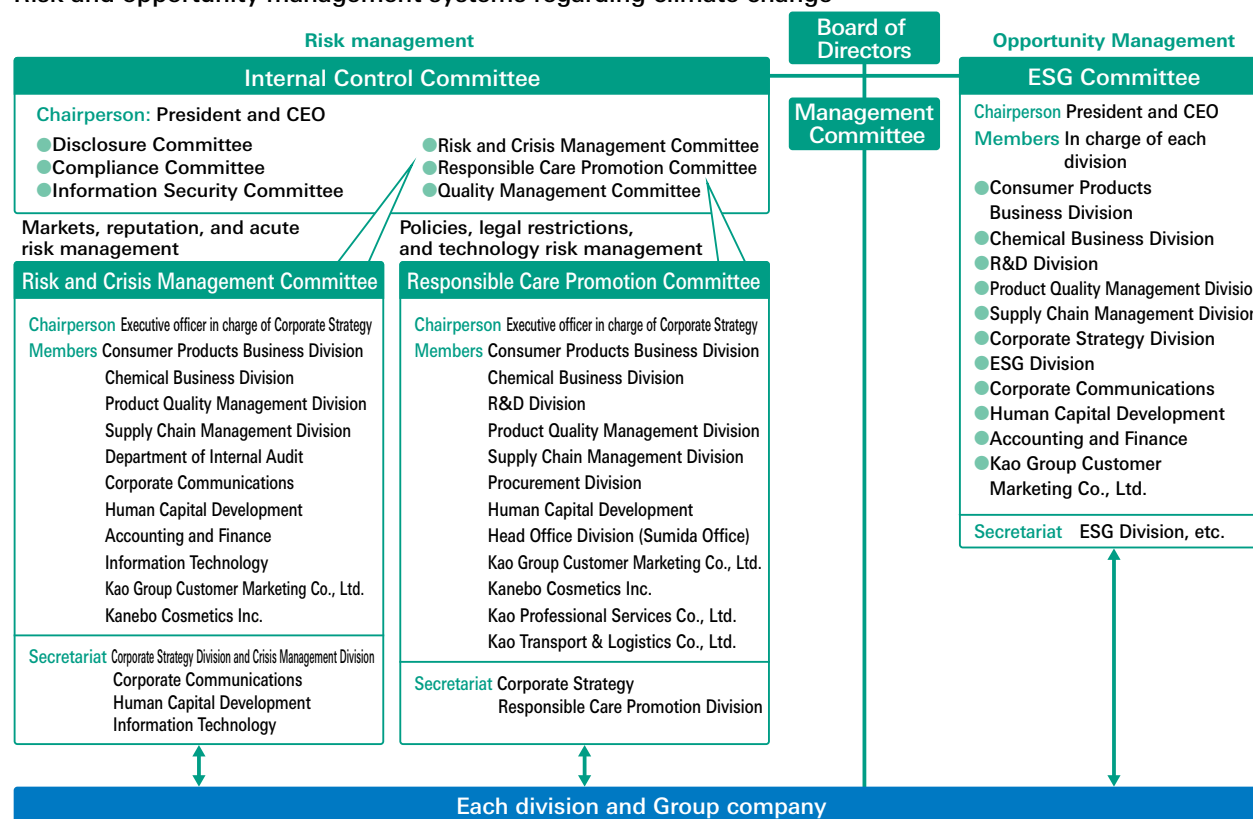
Kao's approach

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.

Risk and opportunity management systems regarding climate change



* As of December 2018.

Mid- to long-term targets and performance

2020 mid-term targets

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 CO₂ emissions pertaining to the entire product lifecycle for the group in Japan, based on the national reduction targets set by the Japanese government at the time.

Targets for energy and greenhouse gas emissions

Index	Scope	2018 targets	2019 targets	2020 targets
Energy consumption	All Kao Group sites	33% reduction	34% reduction	35% reduction
GHG emissions		32% reduction	33% reduction	35% reduction
CO ₂ emissions	Across the entire product lifecycle for the Kao Group in Japan	—	—	35% reduction

Anticipated benefits from achieving mid- to long-term targets

Cost reductions or profit increase

Achieving targets (for energy consumption and greenhouse gas emissions) for all sites in the group leads to better profits as they contribute to the reduction of business activity operating costs. Additionally, the reduction of CO₂ emissions across product lifecycles can be achieved by reducing raw material use and increasing sales of products with low CO₂ emissions during usage, leading to reduced operating costs and sales growth.

Impacts on society

By achieving the above goals, we can reduce greenhouse gas emissions and contribute to reducing the impact of global warming. Additionally, products with low CO₂ 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 system.

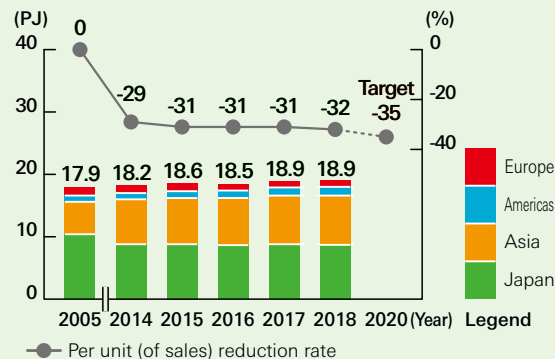
2030 long-term targets

Items	Scope	2030 long-term targets
GHG emissions (absolute quantity)	All Kao Group sites	22% reduction (Compared to 2017)
Energy consumption (Per sales unit)		1% reduction yearly (year-on-year, from 2021)
Purchased power		100% renewable sources
CO ₂ emissions (absolute quantity)	Across the entire Kao Group product lifecycle	22% reduction (Compared to 2017)

Performance in 2018

Performance*

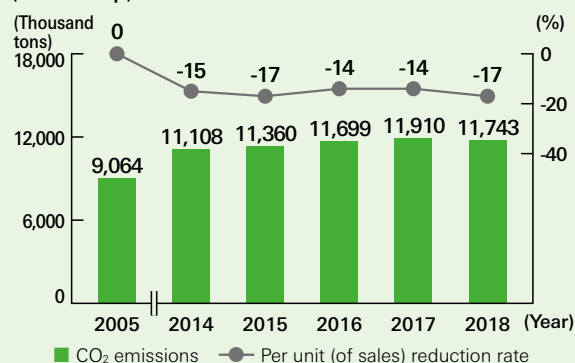
Energy consumption (all sites)



* Boundary: All Kao Group sites including company cars.

* Assurance provided for energy consumption figures.

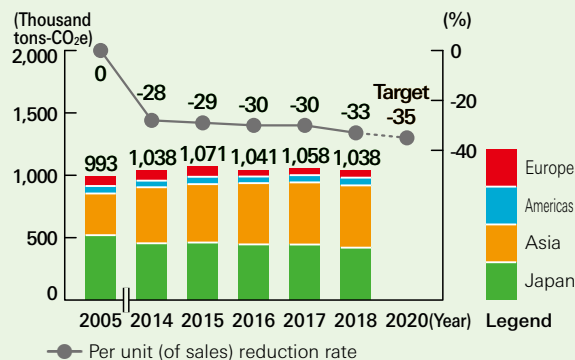
CO₂ emissions across the entire product lifecycle (Kao Group)



* "CO₂ emissions across the entire product lifecycle" is calculated as the combined total for the amount of lifecycle CO₂ emissions of individual products sold within and outside Japan, multiplied by their annual sales quantity. Among the lifecycle, the estimated emissions from the manufacturing and distribution processes are substituted by the actual emissions from these processes. However, this amount does not include emissions related to the use and disposal of chemical products.

* Assurance provided for CO₂ emissions figures and per unit (of sales) reduction rates.

GHG emissions (all sites)

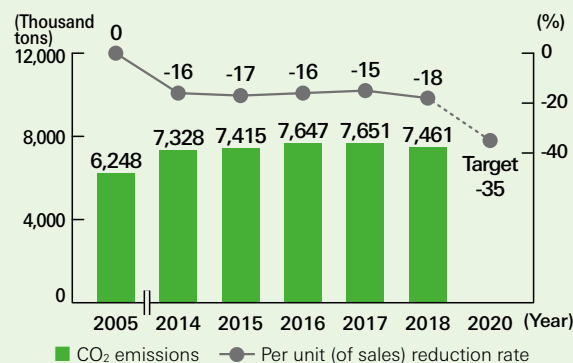


* Boundary: All Kao Group sites including company cars.

* Gases included: The seven GHGs specified by the Kyoto Protocol (only CO₂ for sites outside Japan)

* Assurance provided for GHG emissions figures.

CO₂ emissions across the entire product lifecycle (Kao Group in Japan)



* "CO₂ emissions across the entire product lifecycle" is calculated as the combined total for the amount of lifecycle CO₂ emissions of individual products sold within and outside Japan, multiplied by their annual sales quantity. Among the lifecycle, the estimated emissions from the manufacturing and distribution processes are substituted by the actual emissions from these processes. However, this amount does not include emissions related to the use and disposal of chemical products.

* Assurance provided for CO₂ emissions figures and per unit (of sales) reduction rates.

* Per unit of sales is calculated based on Japanese standards up to fiscal 2015, and on International Financial Reporting Standards (IFRS) from fiscal 2016.

Reviews of performance

CO₂ emissions across the entire product lifecycle in Japan decreased by 68 thousand tons-CO₂ over the previous year, and the per unit (of sales) reduction rate improved by 3 points to 17% (2005 baseline) over the previous year. CO₂ emissions across the entire product lifecycle in Japan were reduced by 190 thousand tons-CO₂ over the previous year, and the per unit (of sales) reduction rate improved by 3 points to 18% (2005 baseline) over the previous year. The main cause was the expansion of our lineup of single rinse laundry detergents. While energy consumption per unit of sales reduction rate at all Kao Group sites increased from the previous year to a 32% reduction, we did not achieve the reduction target of 33%. GHG emissions per unit of sales reduction rate at all Kao Group sites increased from the previous year to a 33% reduction, and achieved the reduction target of 32%.

We offer a wide selection of household products such as water-saving products that reduce CO₂ emissions during the use stage, and also provide various industrial-use products that do the same. However, the CO₂ emissions in the use and subsequent stages for industrial-use products falls under the scope of our business partners' final products, and therefore the amount is not added to the figures for lifecycle CO₂ emissions listed on p. 37. Including these reductions, the contributed lifecycle CO₂ emission reduction was 3,961 thousand tons*.

We will further expand our range of products that reduce 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.

* Value is calculated as the reduced lifecycle CO₂ emissions of the Kao product in Japan, compared with the standard product as of 2005. The scope includes industrial-use products and household products.

Scope 1 CO₂ emissions (Thousand tons-CO₂e)

	2016	2017	2018
Japan	272	271	263
Asia	291	290	291
Americas	39	43	49
Europe	47	49	49
Total	649	653	652

Scope 2 CO₂ emissions (Thousand tons-CO₂e)

	2016	2017	2018
Japan	169	173	157
Asia	200	208	207
Americas	14	14	14
Europe	8	9	9
Total	391	405	386

* 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)

	2016	2017	2018
Electricity	7,272	7,648	7,260
Heat	0	0	0
Steam	132	140	140
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)

	2016	2017	2018
Natural gas	8,915	9,047	9,123
Diesel oil	1,375	1,383	1,331
Gasoline	162	149	135
Other	111	128	145
Waste vegetable oil (heat recovery)	517	486	553

Scope 3 CO₂ emissions (Thousand tons-CO₂e)

	2016	2017	2018
1. Purchased goods and services*	4,134	4,496	4,430
2. Capital goods	262	239	269
3. Fuel- and energy-related activities (not included in scope 1 or scope 2)	22	29	27
4. Upstream transportation and distribution*	242	253	253
5. Waste generated in operations*	47	58	60
6. Business travel	4	4	4
7. Employee commuting*	18	18	21
8. Upstream leased assets	0	0	0
9. Downstream transportation and distribution*	94	97	106
10. Processing of sold products	113	119	119
11. Use of sold products*	4,965	4,687	4,570
12. End-of-life treatment of sold products*	1,317	1,415	1,452
13. Downstream leased assets	0	0	0
14. Franchises	0	0	0
15. Investments	7	8	8
Total	11,225	11,423	11,319

* 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.

Collaboration with stakeholders

“eco together” with consumers

We participate in environmental events hosted by local governments and distribution companies, and carries out awareness-raising activity.

- To make consumers aware of products with less environmental impact, the “eco together” logo is affixed to the relevant products.
- Our “Let's eco together” booklet, which tells consumers about our commitment to the environment, was created and distributed at various environmental events.

“eco together” with business partners

- Participation in the Green Value Chain Platform and 2°C Target Network Corporate Edition administered by the Ministry of the Environment, offering Kao's Scope 3 efforts as an example and contributing to the calculation of Scope 3 emissions by corporate consumers.
- Over 10 years of continuous participation in the CDP Supply Chain Program. We give corporate evaluations and feedback based on responses, and promote supplier CO₂ reduction activities.
- Collaborating with packaging suppliers to develop packaging that contributes to CO₂ reduction.
- Carrying out collaborative transportation efforts.

“eco together” with society

- 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.
- Cool Choice awareness, promoted by the Ministry of the Environment, and the contribution to lifestyle change for consumers toward decarbonization.
- Participation as a member of the LCA Working Group organized by the Japan Chemical Industry Association (JCIA). Publicly disclosing corporate carbon lifecycle analysis (c-LCA) to communicate contributions to CO₂ reductions from the use of chemical products.
- Environment communication at the Kao Eco-Lab Museum.

Our initiatives

Efforts in raw materials procurement

Mitigation

We recognize that stopping and restoring deforestation has the same effect as reducing one-third of greenhouse gas emissions. In addition, we recognize that there are risks in sustainable development regarding the deterioration of biodiversity and human rights issues of local workers, and we support zero deforestation of habitats during the procurement of palm oil, paper, and pulp, among other things, by 2020.

As part of this effort, we have participated in the CDP “Forest” Supply Chain Program since 2018. We expect suppliers to begin sustainable and responsible procurement of palm oil, paper, pulp and more, which includes procurement preventing deforestation.

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 CO₂ reduction activities, we have been evaluating CO₂ reduction activities and have been working to provide the results of these evaluations back to our suppliers. As a result, supplier effort is increasing each year.

In collaboration with suppliers, we are reducing CO₂ emissions from the manufacture of packaging by using renewable and recycled resins and thinner cardboard.

By optimizing the volume and frequency of raw materials deliveries, we are reducing CO₂ emissions in the transport of raw materials.

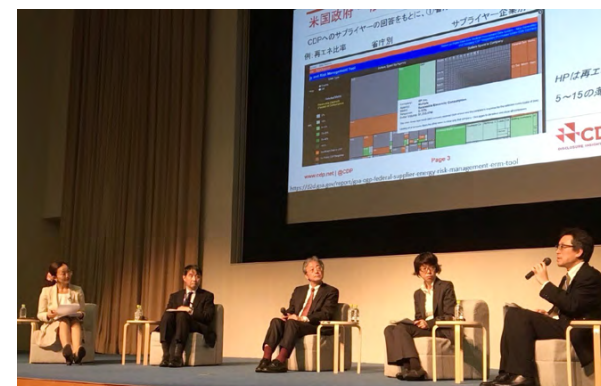
With the cooperation of suppliers, we are collecting data on CO₂ emissions produced in the procurement and processing of raw materials. This not only improves the accuracy of our CO₂ emission calculations during the raw material procurement process, but also allows us to offer various support to suppliers by gaining an understanding of CO₂ emissions at their sites, which can then be reflected in lifecycle CO₂ emissions reductions of Kao products.



→ p. 139 Corporate Culture > Sustainable and responsible procurement

Adaptation

Due to climate change, unusual weather is occurring in different places. For instance, there is an increase in short-term frequent heavy rain. In order to highlight the importance of suppliers’ awareness toward putting a system for water risk in place against river to be aware of the need to put in place a system for water risk against flooding of rivers and sewage systems caused by heavy rain, we have been a participant of the CDP “Water” Supply Chain Program since 2015.



Kao employees participated as panelists in the Ministry of the Environment and CDP co-sponsored Supply Chain Asia Summit 2018.

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. At the same time, we evaluate CO₂ emissions across the entire lifecycle. The results of these evaluations are used not only to determine product launches, but are also incorporated in future product development.

Especially regarding products that require water during usage, we are aware that the process of water production and treatment post-use requires much energy and generates CO₂, and are actively promoting the development of water-saving products. Furthermore, as products like shampoos that use hot water generate more CO₂ as part of the process of producing hot water, the water conservation of products that require hot water is more effective.



→ p. 27 Conservation > Initiatives for the environment

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 antiperspirants, etc. are expected to increase during summer, and we are actively promoting developments of these products due to these expectations. Additionally, as the probability of droughts occurring increases, the demand for water-saving products is also expected to increase.

Moreover, it is predicted that there will be a significant restriction on resources, and we are now focusing on the development of our surfactants (Bio IOS), which use a biomass that doesn't compete with food, making it highly efficient.

The investment and cost of environmentally-friendly research and development in response to climate change in 2018 was 347 million yen and 3,913 million yen, respectively.



Our Technology Innovation Presentation will announce new technologies to reduce the complete lifecycle CO₂ emissions.

Efforts in manufacturing (plants, offices, logistics centers)

Mitigation

1. Efforts to reduce energy consumption

• Introduction of high-efficiency equipment, 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 2018. Through optimized control using multiple units of air conditioners and compressors, we are more efficiently operating equipment corresponding to fluctuating demand.

In addition, we are switching lights to LED around the world. Our plants, logistics centers and offices in Japan have accomplished plans announced in 2015, reducing CO₂ 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 2018 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 sites to reduce the amount of required energy, including lowering the set temperature of heat-insulated tanks and shortening operating times.

Some of the steps we are taking include turning off unnecessary lights, using person 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 219 energy-saving activities at Japanese plants and offices in 2018, resulting in approximately 5,496 tons of CO₂ reduction and 140 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 panels at each of our Kao-owned facilities. During 2018, operations were Ehime Plant (total generation 318 MWh), Kao Penang Group (total generation 179 MWh), Kao Industrial (Thailand) (total generation 8,401 MWh), Kao Corporation Shanghai (total generation approximately 300 MWh), and Kao USA (total generation approximately 50 MWh), and we are promoting solar panel installation at our Tochigi and Toyohashi plants.

Kao companies in Europe have also begun purchasing renewable energy. Four subsidiaries including Kao Chemicals GmbH in Germany and Molton Brown in the UK have converted all purchased power to renewable energy sources (30.3 GWh). In

Japan, our Odawara Plant started purchasing renewable power from June, and our Tochigi, Kashima, Kawasaki, and Ehime plants started purchasing renewable power in October. As a result, the Ehime Plant derived of its energy from renewable energy. Using this power from renewable energy has reduced CO₂ emissions by 27.4 thousand tons.

• Use of power with low GHG emission factors

To reduce the CO₂ emissions of the purchased power we use, we take GHG emission factors into consideration when selecting power suppliers.

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 (GWP). To reduce the volume of fluorocarbon leaks from equipment, we have been strengthening our regular equipment inspections.

In addition, we are switching newly installed chillers to those that use low-GWP refrigerant. We installed three systems that use low-GWP refrigerant in Japan.

These systems use R-1233zd(E), an HFO refrigerant, which is readily broken down in the atmosphere. Compared with R-134a, an HFC that is the standard refrigerant for chillers and has a GWP of 1,300, R-1233zd(E) has a GWP of 1, the same as CO₂, and offers excellent performance.

Despite these activities, scope 1 and scope 2 CO₂ emissions at Kao have decreased by 1 thousand tons and 19 thousand tons, respectively, in 2018.

Adaptation

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

Additionally, as new water risks are likely to emerge with climate change, annual water risk surveys are conducted at our plants.



→ p. 48 Conservation > Water



Solar power is installed at the Kao Industrial (Thailand) plant

Efforts in distribution

Mitigation

CO₂ emissions during distribution in Japan were 97 thousand tons-CO₂ in 2018, a 32% reduction (per unit of sales, 2005 baseline). One of the main reasons for this result was the increase in the sales share of products that have a large volume relative to their weight.

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 CO₂ 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 CO₂ emissions in shipping. Together with AEON Global SCM Co., Ltd., a consolidated subsidiary of AEON Co., Ltd., which handles logistics, we have adopted a trailer relay transportation system in which drivers

switch the trailers they are hauling at a relay point midway between the delivery and return points of the Tokyo metropolitan area and the Chubu region in 2017. This was the first such collaboration between companies of different industries in Japan.



Containers featuring a design with the corporate colors of AEON and Kao publicized this initiative.

5. Visually mapping shipping energy and CO₂ emissions outside Japan

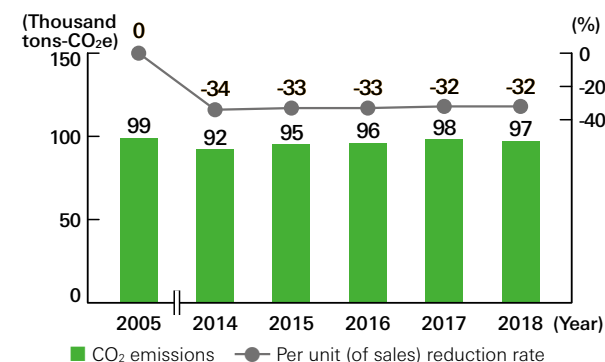
We had been making preparations to begin calculating distribution-related energy usage and CO₂ emissions outside Japan starting from 2018. However, the calculation and reporting of distribution-related CO₂ emissions outside Japan for 2018 has been based on estimates. It is anticipated that, for 2019, it will be possible to report amount based on actual distribution data.

Adaptation

When short-term and local heavy rains intensify, there is a break in the supply chain from Kao's plants to

consumers where products are undeliverable, and if a long-term detour route is adopted, there is additional risk that the environmental load will increase. 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.

CO₂ emission during distribution (Japan)



* Boundary: Kao Corporation and Kanebo Cosmetics Inc.

* Assurance provided for CO₂ emissions.

* Per unit of sales is calculated based on Japanese standards up to fiscal 2015, and on International Financial Reporting Standards (IFRS) from fiscal 2016.

Efforts during use

Mitigation

We offer a wide selection of products that reduce CO₂ emissions during the use stage.

Some of these leading products include ultra-concentrated laundry detergents that only require one rinse cycle, and shampoo, body wash and dish detergent that reduce the amount of hot water required for rinsing.

One example of a product that has reduced lifecycle CO₂ emissions is our *Attack Neo* laundry detergent that Kao first put on the market in 2009, which reduces lifecycle CO₂ emissions per laundry load by approximately 22%. This product was the first proposed laundry detergent to require only one rinse cycle and has changed how consumers do laundry, so much that now washing machines come with a button to select a single rinse cycle as a standard feature. The content of this product is 2.5 times more compact than existing standard detergents.

Laundry detergents that require only one rinse cycle are offered in Japan, Taiwan, Singapore and Australia.

In 2019, we launched *Attack ZERO*, a concentrated liquid clothing detergent based on the Bio IOS, the highest cleaning base in our history, which redefined cleaning concepts prior to its release. We aim to further expand our one rinse cycle laundry detergents.

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.

We also offer a wide selection of products for industry that allow customers to reduce their CO₂

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 CO₂ emissions from fuel consumption, a water-based precision substrate cleanser that replaces fluorocarbon-based cleansers, 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

This concentrated liquid detergent for clothing can easily be dispensed with on hand with the new container's "one hand push", while keeping its washing and deodorizing power with zero residue left behind.



Essential Smart Blow-Dry

Prevents hair from getting tangled and cuts 20% of dryer time through improving the direction of dryer air.

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 antiperspirants, etc. are expected to increase during summer. Additionally, as the probability of droughts occurring increases, the demand for water-saving products is also expected to increase.

In case the misfortune of natural disaster should occur, we launched our *sonaeru* website in December 2017, which contains useful daily necessities and other information that focuses on introducing sanitary and hygienic products for use during evacuation measures.



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

Efforts in disposal and recycling

Mitigation

CO₂ emissions in the disposal and recycling stage consist of the following two types. One type is the CO₂ emitted as materials and ingredients made from petroleum degrade when packaging, diapers and other materials disposed of by consumers after use are incinerated, or when wastewater containing cleansing and other agents is treated. The other type is CO₂ emitted from using energy required to operate incinerating and recycling equipment and wastewater treatment facilities.

We are working to reduce the raw materials used in packaging and diapers as well as cleansing agents to reduce these CO₂ emissions. We are also using biomass and bioplastics. The CO₂ emitted when these materials degrade is not deemed to contribute to global warming.

Adaptation

While the population increases in the future, it is predicted that there will be a significant restriction on resources in light of the Paris Agreement, and we are now focusing on the development of high performance surfactants (Bio-IOS), using a biomass that doesn't compete with food, as well as our Package RecyCreation, which aims to zero marine plastic, utilize recycled plastic and eliminate residual liquid in containers.

In addition, our policy on plastic containers and packaging is disclosed in our "Statement regarding our plastic packaging", and furthermore we are working to actively respond to the promotion of open innovation among other measures.



→ p. 79 Conservation > Packaging



→ Statement regarding our plastic packaging
www.kao.com/global/en/sustainability/environment/statement-policy/eco-friendly-products/plastic-packaging/



Statement regarding our plastic packaging



Active exchange with external organizations

In 2018, we introduced our environmental efforts to several external organizations. Furthermore, we opened up opinion exchanges at seminars and training sessions.

• TCFD Research Gathering participant

We participated as a member of the TCFD Research Gathering on the Ministry of Economy, Trade, and Industry Green Finance and the disclosure of corporate information.

• Supporting the OSLO Climate Leadership Declaration

Aiming to promote corporate climate change initiatives, we made a statement of our support.

• Taranoa dialogue

As one of COP24's main agendas, our efforts were introduced as one of Japan's examples as part of the Taranoa dialogue. In addition, our efforts were published on the Japanese Taranoa Dialogue website.

• CDP-related seminars and training sessions

We held our Kao In-house Seminar in response to requests from our suppliers. For the purpose addressing requests and going over answer methods according CDP Japan, we introduced energy saving methods that the company is conducting toward reducing our suppliers' GHG.

Kao's approach

Water is essential to Kao's business activities. In manufacturing, water is used not only as a raw material in liquid cleaning products but also for heating, cooling and cleaning purposes. Consumers also need to use water when using our products. Kao has continued to propose products which reduce the amount of water needed for their production and when they are used by consumers. In addition, the water that is used in plants and homes is returned to river and ocean environments as wastewater after receiving wastewater treatment. We are therefore also taking steps including management the water quality of wastewater at our plants, and developing products whose wastewater has less impact on the environment.

Kao's creating value to address social issues

Social issues we are aware of

Water is necessary to life for all plants and animals on Planet. All humans also need access to sustainable sources of sanitary water in order to maintain the whole hearted satisfaction and enrichment. Drought and conflicts over water are already becoming problems in some regions and are predicted to become increasingly severe due to future population growth and global warming.

Kao's creating value

To substantially improve water usage efficiency throughout all stages of product lifecycles, at our plants we set targets and continue to aim for water use reduction. We are also developing water-saving products, which we are rolling out globally, to reduce water consumption during product use.

In addition, we offer additives for concrete and cement enabling construction without harming the environment, particularly as regards construction near water, such as along rivers or coastal areas, in relation to construction of a more resilient infrastructure.

To minimize release of chemical substances into the natural environment, we manage wastewater treatment facilities at our plants using stricter limits than mandated for wastewater quality management. For wastewater after product use, we conduct voluntary risk assessments of chemical substances and use only chemical substances with acceptable risk.

Contributions to the SDGs



Risks and opportunities related to realization of our vision by 2030

Items			Content
Risks	Transitional risk	Policies, legal restrictions	<p>Enactment of water-related policies and regulatory regimes has the potential to increase our supervisory costs in this area. Investing in better facilities and developing of new technologies to comply with policies and regulations will mean higher equipment and operating costs, which could negatively impact our profitability.</p> <p>In addition, national or regional policies to limit water intake depending on plant locations or increased risk of water sources drying up could cause unscheduled production stoppages and result in lower sales.</p> <p>Examples of possible policy or regulatory restrictions</p> <ul style="list-style-type: none"> • Plant wastewater regulation. • Regulation of use of chemical substances in products. • Product labeling programs for environmental performance or chemical substance content. • Water intake restrictions.
		Technology	<p>Risk of profit reduction due to higher operating costs entailed by higher R&D costs for developing water-saving and other products for dealing with water risks.</p> <p>Risk of failing to increase sales if technologies developed do not work out.</p>
		Market	<p>If drought persists at the national or local level, limits on water consumption during product use may be imposed. While this creates opportunities in the form of stronger demand for water-saving products, we face the risk that sales of non-water-saving products may fall.</p> <p>Risk of lower sales if water-saving product technology levels fail to match levels demanded by the market.</p>
		Reputation	<p>Risk of reputational harm due to insufficient measures or inadequate disclosure for dealing with the above risks.</p>
	Physical risk	Acute	<p>Risk that short droughts or flooding due to localized downpours may stop plant operations and make production impossible. Similar conditions at suppliers' plants could make it impossible for us to procure raw materials, with the risk that we could not continue manufacturing products. There is also the risk that supply chains, from suppliers to our plants, and from our plants to our customers, could be interrupted. These risks, meaning that we could no longer supply our products to the market, would negatively impact sales, and if such risks actually materialized, would require special measures at additional cost, thus reducing our profits. In addition, damage to infrastructure due to widespread flooding would severely affect consumers' lives and reduce consumption activity, which carries the risk of lower sales for us.</p>
		Chronic	<p>In the case of our plants or suppliers located in areas where severe drought may occur, there is a risk that we may not be able to increase production necessary for future growth. There is also the risk that sales of water-using products may decline in these areas.</p>
Opportunities	Resource efficiency		<p>Continuing to reduce water use at our plants reduces operating costs for manufacturing products and is an opportunity to increase profits.</p>
	Products, services		<p>Our product development system centers on interface control technology. Interface control literally means controlling how substances mix with each other. This technology enables us to continue developing water-related products, for example, detergents that rinse readily or cement that does not readily mix with water, thus enabling us to respond appropriately to market changes.</p>
	Markets		<p>If restrictions on water use materialize after a disaster due to flooding or downpours, the spotlight will be on water-saving products, presenting an opportunity to increase sales.</p> <p>Construction of a more resilient infrastructure is also an opportunity to boost demand for concrete and cement additives essential for construction work.</p>
	Resilience		<p>Continuing to reduce water use at our plants and require suppliers to implement water risk surveys help improve our resilience with regard to water issues in manufacturing our products.</p> <p>We have been offering advice to consumers for over 60 years, and thanks to a database built up over 40-plus years, we can forecast consumer trends and propose new products, an activity necessary for improving the resilience of our business.</p>

Policies

We at Kao are working together with our business partners and consumers to introduce and develop technologies to conserve water and water quality at each stage of the product lifecycle.

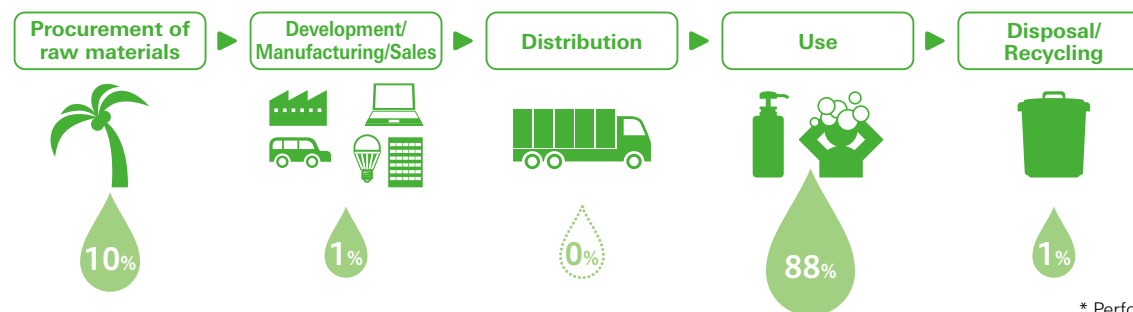
In the product lifecycle, the usage stage accounts for the largest ratio of water consumption at 88%. As with CO₂ emissions, in 2009 we announced in the Kao Environmental Statement our commitment to contribute to environmental conservation at all stages of the product lifecycle.

Water used at the raw materials procurement stage, which accounts for 10% of total lifecycle water consumption, represents water used at suppliers' plants. For this reason, making efforts together with our suppliers is vital.

The ratio of water used in the development, manufacturing and sales stages is small at 1%, but our plants still have some impact on the communities in which they are located. Each of our plants currently sets water conservation targets and conducts activities accordingly. We also set stricter limits than mandated for wastewater quality management.

We offer products whose wastewater from product use has small impact at the disposal stage to reduce the environmental impact of household wastewater and help prevent water quality contamination.

Ratio of water consumed at each stage of Kao Products' lifecycle



* Performance in 2018

Efforts with suppliers

Among our principal suppliers with high water risks, we conduct surveys and evaluate suppliers' water use and water management activities through our CDP Supply Chain Program. These surveys also represent an opportunity to promote suppliers' water management. We also assess these suppliers' plant water risks using tools such as Aqueduct from the WRI* and endeavor to get an idea of future risks.

* WRI

World Resources Institute.

A U.S.-based policy center that researches problems related to natural resources and the environment and conducts activities together with government and private groups and environmental experts.

Efforts at plants

At our plants, we use water as a product ingredient as well as to clean and cool equipment. We set targets to reduce water consumption at each plant and are working to reduce consumption and increase recycling based on the 3R's (reduce, reuse and recycling).

We are also installing wastewater treatment technologies. Our Wakayama Plant in Japan has conducted a demonstration experiment of industrial wastewater treatment technology, that uses tubifex worms developed by the Industrial Technology Center of Wakayama Prefecture. It was verified that the technology can reduce pollutants emitted from a treatment center by as much as 80%. We also seek out external technologies to introduce in our plants and are working to reduce waste materials and cut costs.

Survey of water risks

We regularly conduct water risk assessments at plants using the WRI's Aqueduct tool and internal information. When opening new plants, we also examine the long-term feasibility of using the water resources and the wastewater impacts.

Initiatives to prevent water pollution

We have installed and conduct high-level maintenance and management of wastewater treatment facilities at many plants. After properly treating plant wastewater, it is discharged outside the plant. We monitor the quality of the discharged water based on laws and regulations as well as agreements with nearby local governments.

Surveys of ground and soil contamination

In light of our past history of chemical substance use, every year we voluntarily measure the levels of substances regulated by environmental standards in the groundwater within plant premises.

Compliance with environmental legislation

We manage facilities and operate pollution prevention control systems to comply with various environmental laws and regulations, including for plant wastewater and waste. We conduct high-level maintenance and management to comply with regulations that are becoming more rigorous year after year.

Efforts in products

We are actively working to develop easily rinsed products that reduce the amount of water needed during product use.

We are working to develop products whose wastewater after product use has small impact on water environments. In addition, we are conducting surveys and research on river contamination in cooperation with experts and industry associations.

Framework

Risk management 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 CEO.

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 Promotion Committee 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 water use 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 water use, mainly at plants which have a large impact on water issues, 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 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 water 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 water 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.

The risk and opportunity management system for water resources is the same as the management system for climate change.



→ p. 38 Conservation > CO₂ / Framework

Collaboration with stakeholders

- We participate in the Water Project sponsored by Japan's Ministry of the Environment, to help the public understand the importance of water and water conservation and develop ideas for how individuals can help save water.
- The water conservation campaign that we continue to conduct in cooperation with the Chinese government was held for the seventh consecutive year in 2018. We expanded the areas of activity and conducted awareness-raising for water conservation at 64 universities in China's northwestern region in this year's campaign.
- We participate in the CDP Supply Chain Program and work together with CDP to survey and gather information about water consumption and management conditions at suppliers with high water risks.



Speech at the China water conservation campaign

Mid- to long-term targets and performance

2020 mid-term target

We set the 2020 reduction targets for water consumption for all Kao Group sites in 2013 and have aimed to achieve a 1% reduction each year.

We set the 2020 reduction targets for water consumption during the product use stage for the Kao Group in Japan in 2009.

Targets for water consumption

Index	Scope	2018 targets	2019 targets	2020 targets
Water consumption	All Kao Group sites	39% reduction	39% reduction	40% reduction
	During consumer product use for the Kao Group in Japan	—	—	30% reduction

Anticipated benefits from achieving Mid- to long-term targets

Cost reductions or profit increase

Achieving water consumption targets for all Kao Group sites will contribute to lowering operational costs and to improving earnings. For achieving water consumption targets during product use, we must increase sales of water-saving products, and reaching this target can help increase sales.

Effects on society

Achieving the above targets will contribute to sustainable availability or supply of fresh water in areas where our sites are located and can have a positive effect on conserving water-related ecosystems.

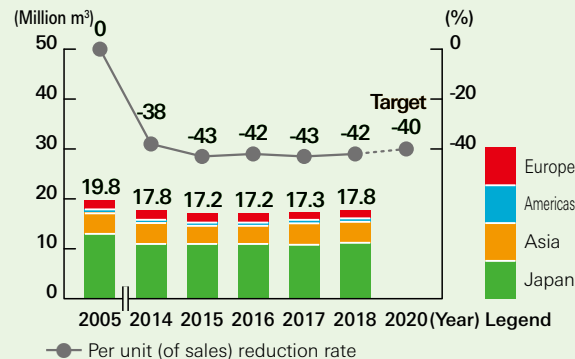
2030 long-term target

Item	Scope	2030 targets
Water consumption (per unit of sales)	All Kao Group sites	Reduce by 45% (2005 baseline)
	Overall Kao Group product lifecycles	Reduce by 10% (2017 baseline)
	Overall Kao Group product lifecycles in drought areas	Reduce by 40% (2017 baseline)

Performance in 2018

Performance*

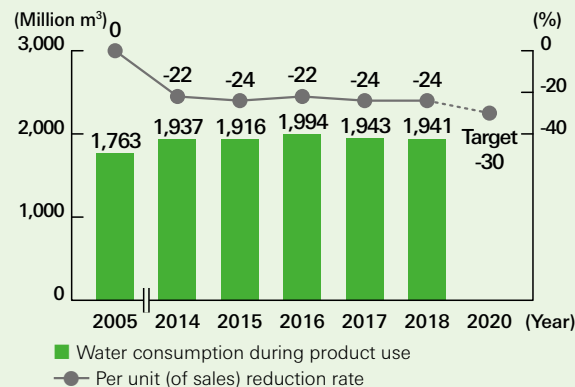
Water consumption (withdrawal) (all sites)



* Boundary: Through 2014, all Kao Group production sites as well as non-production sites within Japan. For 2015, includes some non-production sites outside Japan, and from 2016 onwards, includes all non-production sites outside Japan.

* Assurance provided for water consumption (withdrawal).

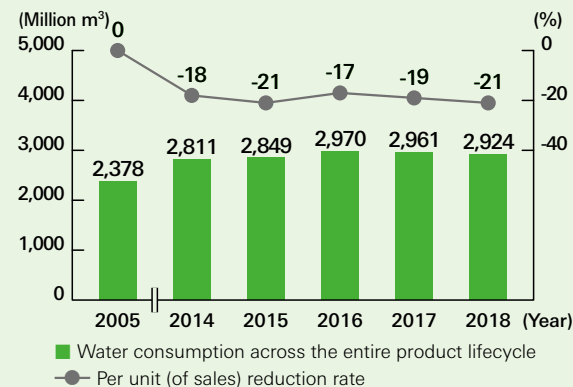
Water consumption during product use (Kao Group in Japan)



* Water consumption during product use is calculated by multiplying the water consumption per unit of a product, mainly for consumer products in Japan, by the annual sales quantity of the product, and then adding all the results for these products together.

* Assurance provided for water consumption and per unit (of sales) reduction rates.

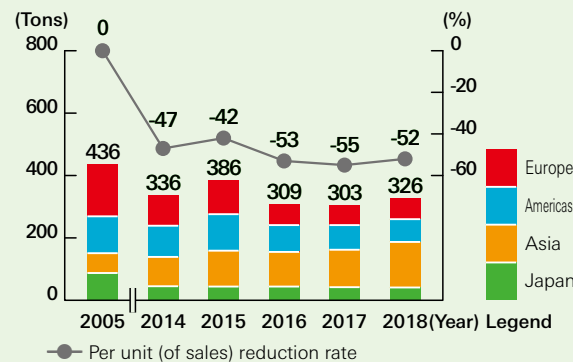
Water consumption across the entire product lifecycle (Kao Group)



* "Water consumption across the entire product lifecycle" is calculated as the combined total for the amount of lifecycle water consumption of individual products sold within and outside Japan, multiplied by their annual sales quantity. Among the lifecycle, the estimated water consumption during the manufacturing and distribution processes is substituted by the actual use during these processes. This amount includes water used for procurement in regard to chemical products but does not include water used in the use and disposal of such products.

* Assurance provided for water consumption and per unit (of sales) reduction rates.

COD pollution load (all production sites)



* The amount of COD pollution load for wastewater entering sewer systems takes into account the removal rate from sewer systems.

* Assurance provided for COD pollution load.

* Per unit of sales is calculated based on Japanese standards up to fiscal 2015, and on International Financial Reporting Standards (IFRS) from fiscal 2016.

Water withdrawal amount by source (Million m³)*

	2016	2017	2018
Surface water	0	0	0
Brackish water/seawater	0	0	0
Rainwater	0	0	0
Groundwater (renewable)	4.9	5.1	5.3
Groundwater (not renewable)	0	0	0
Oil-contaminated water/process water	0	0	0
City water	12.3	12.2	12.5
Wastewater from other organizations	0.1	0.03	0.02

Wastewater discharge by destination (Million m³)*

	2016	2017	2018
Rivers/lakes	2.1	2.3	2.4
Brackish water/seawater	6.0	5.8	6.4
Groundwater	0	0	0
Sewage system	2.7	2.8	2.8
Wastewater to other organizations	0	0	0
Total	10.8	10.9	11.5

* Boundary: All Kao Group sites

Reviews of performance

Our water consumption (all sites) came to 17.8 million m³, deteriorated by one point from the per unit of sales-based reduction rate over the previous year to 42%. We achieved our 2019 and 2020 targets, continuing from the previous year. Water consumption at manufacturing sites with water intake risks came to 3.1 million m³. Our water consumption across the entire product lifecycle (Kao Group) decreased by 37 million m³, which contributed to the improvement of the per unit reduction rate (sales-base) by two points to 21% reduction. Water consumption during product use also decreased by one million m³, while the per unit reduction rate stayed at the same level as the previous year at 24% reduction. Our COD pollution load increased by 23 tons over the previous year, deteriorated by three points in the per unit of sales-based reduction rate.

The challenge is to reduce water consumption during the use stage. We are working to further expand our water-saving products.

Our initiatives

Efforts in raw materials procurement

We participate in the CDP Supply Chain Program in 2015 and encourage suppliers in high water risk sectors to work on improving their water management standards. For example, we ask suppliers to cooperate in surveying and confirming their water consumption and water management conditions. Since 2017 we have been assessing water management conditions based on suppliers' responses and providing them with feedback about the results.

Efforts in development, manufacturing and sales

We use water as a product ingredient as well as to clean and cool equipment at our plants. We set targets to reduce water consumption at each plant and are working to reduce consumption and increase recycling based on the 3Rs (reduce, reuse and recycling).

Reduce

Multiple plants including Kao Chemicals GmbH in Germany conduct efforts to increase the number of times that water is reused for boilers and for cooling to reduce their water consumption.

Reuse

Rainwater is collected and used to water green spaces at the Sumida Office, Kao Chemical Corporation Shanghai and Fatty Chemical (Malaysia).

Recycle

Active recycling efforts, such as recovering steam and treating and reusing water that has been used in production processes, are being carried out at many plants.

Examples of 3R activities

Company name	Description of activity
Kao Chemical Corporation Shanghai	Reduces its water consumption for the manufacturing of some products by reusing water from reaction processes of other products.
Kao Vietnam	Introduced a spray technique for washing and sanitizing tanks, resulting in reducing its use of water and steam.
Kao Industrial (Thailand)	Returns cooling water overflow to a cooling water pool to help eliminate unnecessary water consumption.
Quimi-kao S.A. de C.V. (Mexico)	Concluded an agreement with the local community to receive treated water from the community's wastewater treatment plant. Reverse osmosis is employed to use sewerage effectively, and Quimikao further purifies the treated water it has purchased and releases water left over from production into a river through the community's facility, thus contributing to local water recycling.

Surveys of groundwater and soil contamination

The Wakayama Plant, Sumida Office, Sakata Plant, Kawasaki Plant, Tochigi Plant and Odawara Office have independently conducted groundwater and soil contamination surveys and confirmed that all measurement indicators are below the quantifiable lower limit.

Compliance with environmental legislation

In 2018, there were four incidents of violations of environmental laws and regulations, resulting in fines of 644,000 yen. At the Kashima plant, there was one incident of rainwater discharge exceeding COD limits while at Kao Specialties Americas, there were two incidents of wastewater discharge into sewage system exceeding BOD limits and one incident of ethyl methyl ketone discharge, none of which resulted in fines. Kao Corporation (Spain) paid a fine of 5,001 euros for a violation of storage standards for hazardous waste materials in 2016.

Compliance status with environmental laws and regulations

Category	Unit	2016	2017	2018
Number of violations*1	incidents	3	11	4
Of which, number of leaks	incidents	0	0	1
Total fines*2	1,000 yen	2,590	699	644
Of which, number of leaks	1,000 yen	0	0	0

*1 All incidents detected by authorities during the reporting period.

*2 Fines paid during the reporting period.

Efforts during use

Efforts in the Consumer Products Business

We are conducting a wide range of efforts, as water consumption in the use stage accounts for almost all water consumption across the entire lifecycle. Our leading efforts are offering water-saving products and communicating how to use them.

Since launching *Attack Neo* laundry detergent, which requires only one rinse cycle, in Japan in 2009, we have expanded the supply areas. Currently we provide such water-saving laundry detergent in Taiwan, Singapore and Australia.

We offer *Merit Shampoo*, which since 2010 has been able to reduce the amount of water required for rinsing by 20% over the existing product, *CuCute* dishwashing detergent, which since 2014 has been able to reduce the amount of water required for rinsing by 20%, and *Bath Magiclean* bathroom cleaning liquid, which since 2015 has been able to reduce the amount of water required for rinsing by 10%.

We also communicate ways to save water to consumers using a variety of approaches. For example, we have developed eco shampoo techniques to use less water when shampooing hair, and we communicate these to consumers. Communicating ways to conserve water while offering water-saving products truly embodies “eco together,” the slogan of the Kao Environmental Statement.



Eco shampoo techniques to use less water when shampooing hair.

Efforts in the Chemicals Business

Visco Top is a cement additive in the Chemical Business that can prevent cement from dispersing into surrounding rivers, seas and other water sources when used in construction projects taking place near water. *Visco Top* is also being used in work to remove contaminated water at the Fukushima Daiichi Nuclear Power Plant.



→ p. 56 Conservation > Chemical substances

Our initiatives

Efforts for wastewater after product use

In product development, we incorporate considerations for impacts on the water environments of discharged water after product use. More specifically, we have investigated the biodegradability of raw materials that may be discharged into the environment and their impacts on common aquatic organisms using river water and activated sludge used at wastewater treatment plants. Through this investigation, we are actively promoting the development and use of raw materials with reduced environmental impact. We also plan to use AI and other technologies to investigate chemical substances with high environmental compatibility.

In addition, we are focusing on understanding the situation of water environments after product use and we are conducting our own field surveys on an ongoing basis, such as environmental monitoring of river water to get an idea of the bio risks of chemical substances. To respond to globalization, we are conducting monitoring and working with experts to develop mathematical models that predict the concentration of chemical substances in rivers, aiming to conduct business with consideration for the local environment in countries outside Japan.

Furthermore, cooperating with the Japan Soap and Detergent Association (JSDA), we have conducted environmental monitoring of four major surfactants in urban river systems (7 sites from 4 rivers, 4 measurements/year) for the past 20 years in order to assess environmental risk on aquatic ecosystems. In the surveys conducted so far, the results show that these surfactants have consistently low risks to aquatic organisms.

Kao's approach

Kao is actively engaged in sound chemical management by using science-based risk assessment and risk management procedures in order to use and produce chemicals in ways that minimize their significant adverse effects on human health and the environment. By implementing appropriate chemical substances management across the entire product lifecycle from development and production through to use and disposal, we aim to contribute to the realization of a sustainable society.

Kao's creating value to address social issues

Social issues we are aware of

As a result of continued population growth and economic growth, inappropriate chemicals management poses significant risks to human health and to the environment. Humanity is faced with major problems that are global in scale, including environmental pollution, global warming, resource depletion, and loss of biodiversity.

Member countries at the World Summit on Sustainable Development (WSSD) held in 2002 adopted the international goals of "aiming to achieve, by 2020, that chemicals are used and produced in ways that lead to the minimization of significant adverse effects on human health and the environment, using transparent, science-based risk assessment procedures and risk management procedures, taking into account the precautionary approach." These objectives are known as the WSSD 2020 Goals. Toward this goal, the Strategic Approach to International Chemicals Management (SAICM) was formulated in 2006 and approved by the United Nations Environment Programme (UNEP).

Kao's creating value

In line with the global trend toward more rigorous chemicals management, we set medium-term objectives including "active implementation of sound chemical management in accordance with SAICM" in the Kao Environmental Statement released in 2009.

In 2012, we established the company-wide SAICM Promotion Committee, and we have been working to further enhance chemical substances management, including the strengthening of the foundations provided by our own Comprehensive Management System for Chemical Substances, which we developed ourselves to apply to our own operations.

Through our SAICM promotion activities, we are engaged in the sound chemicals management across the product lifecycle from development and production through to use and disposal. In this way, we are contributing to the realization of a sustainable society by helping to achieve the SAICM goal of minimizing the adverse risks that chemical substances pose to human health and to the environment.

Contributions to the SDGs



Policies

We handle a wide range of chemical substances in consumer products and industrial products, and have always engaged in thorough chemicals management. In addition, we are promoting and strengthening chemicals management based on the internationally established SAICM in order to use chemical substances more safely and soundly.

We formulated our SAICM Promotion Policy in 2013. It defines our company-wide management policy for chemical substances and forms the basis of our chemicals management.

SAICM Promotion Policy

1. Development and Use of Safer and More Valuable Chemicals, and the Development of Manufacturing Processes with Less Environmental Impact
2. Chemicals Management throughout the Entire Life Cycle of Chemicals based on Scientific Risk Assessment
3. Compliance with Laws and Regulations on Chemicals and Voluntary Standards, and the Promotion of International Cooperation and Collaboration
4. Promotion of Risk Communications with Stakeholders



→ SAICM Promotion Policy
www.kao.com/global/en/sustainability/environment/statement-policy/statement/saicm-policy/

Framework

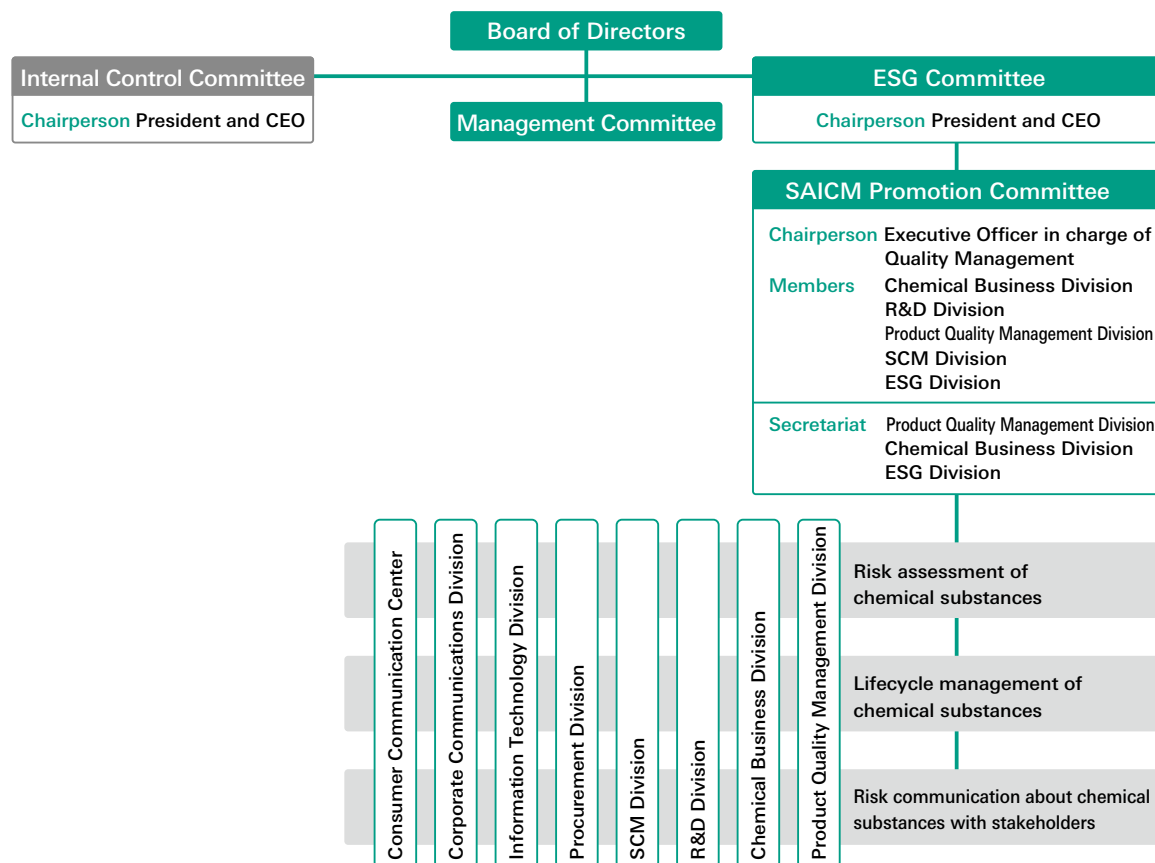
To accelerate implementation of initiatives aimed at realizing the SAICM objectives, we established the SAICM Promotion Committee in 2012 under the Sustainability Committee (now the ESG Committee) chaired by the President and CEO. Reporting to the President and CEO, and chaired by the Managing Executive Officer responsible for overseeing the Product Quality Management Division, the SAICM Promotion Committee is comprised of top-level management in the Product Quality Management Division, Chemical Business Division, R&D Division, Supply Chain Management (SCM) Division, Corporate Strategy Division and ESG Division. The three main types of SAICM promotion activities undertaken by Kao include:

1. Risk assessment of chemical substances.
2. Lifecycle management of chemical substances.
3. Risk communication about chemical substances with stakeholders.

We have established and are implementing projects for each of these activities under the committee. Besides project-specific meetings, the SAICM Promotion Committee meets 3–4 times a year to receive reports on the implementation status of individual projects, listen to lectures given by outside experts, and discuss measures relating to the realization of our vision for chemicals management in the post-2020 period. Over the period between 2012 and December 2018, the SAICM Promotion Committee met a total of 20 times.

In addition, under the Responsible Care (RC) promotion system, we are also promoting activities to reduce emissions of volatile organic compounds (VOCs) and other substances subject to the Japanese PRTR system.

SAICM Promotion Framework



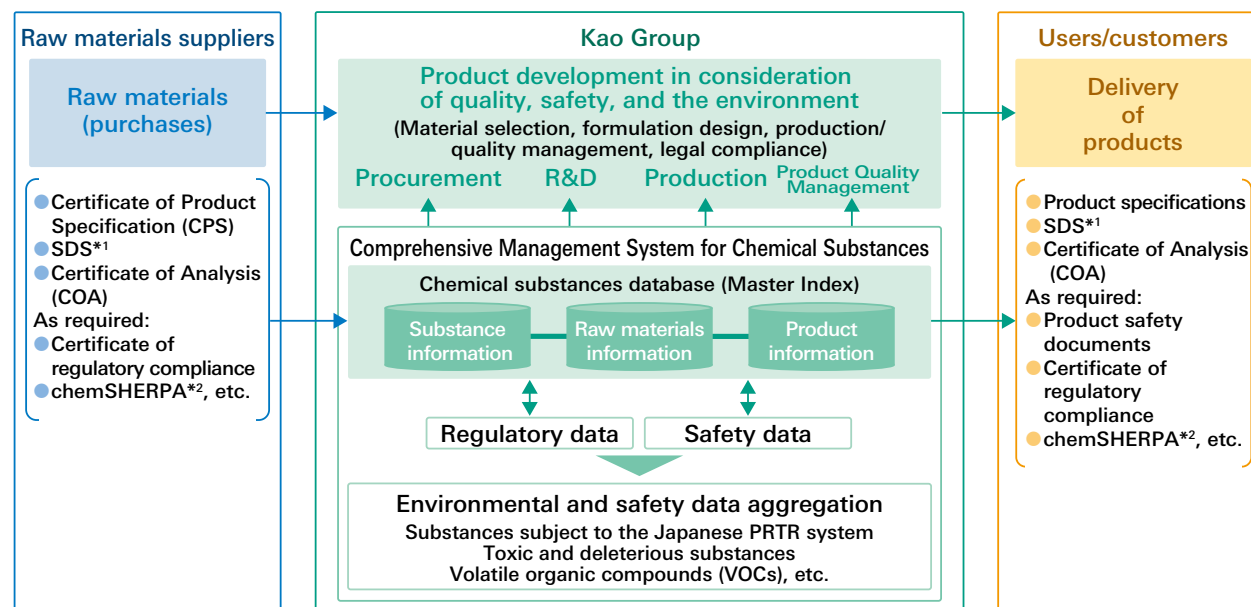
* As of December 2018

Comprehensive Management System for Chemical Substances

To ensure the safety and assurance of consumer and industrial products, in 2001 Kao has established the Comprehensive Management System for Chemical Substances, in which we assign consistent Kao Group codes (Master Index) to individual products and raw materials. The system provides a database which breaks down raw materials by their constituent ingredients. As a result, this system makes it possible immediately to verify the raw materials' quality, safety, anti-bacterial grade, regulatory and other information for each product. If a problem with a raw material arises, or if risk from a new substance of concern emerges, the extent of the effect can be immediately identified so that appropriate action can be taken. Based on integrated management by personnel with specialized expertise, data collected in the Comprehensive Management System for Chemical Substances are shared among Kao Group divisions. We are actively engaged in sound chemical management on a company-wide basis.

In 2017, we expanded the functionalities of the existing system. Following this, in 2018 we promoted the widespread adoption of the system by Kao affiliates all over the world. We will continue to further strengthen the functionality of the Comprehensive Management System for Chemical Substances, in response to increasingly stringent regulatory requirements, the growing diversity in chemical substances handled, and our business expansion into new countries and new business areas.

Kao Comprehensive Management System for Chemical Substances



*1 SDS

Safety Data Sheet. Document providing information to ensure safe and appropriate handling of chemicals, such as names of substances contained in the product, information about potential hazards and handling precautions.

*2 chemSHERPA

A new scheme that facilitates sharing information on chemical substances in products across the entire supply chain to address broadening regulations and appropriately manage chemical substances contained in products on an ongoing basis.

➔ chemSHERPA website: <https://chemsherpa.net/english>

Education and promotion

We utilize a range of communication tools to share safety information for chemical products so as to ensure safety related to chemical substances for customers, consumers and operators, and to ensure that chemicals are used appropriately and any necessary actions are taken, thereby promoting a further enhancement of accident prevention and environmental protection.

Public disclosure of SAICM promotion activities results

We publish the details of our SAICM promotion activities, as well as safety summaries of Kao priority assessment substances for which we have conducted a risk assessment and GPS safety summaries of Kao chemical products. We then disclose this information on the Kao and Kao Chemicals websites, striving to communicate information about chemical substance related risks both inside and outside Kao.



→ p. 63 Our initiatives: Risk communication about chemical substances with stakeholders - 1. Public disclosure of SAICM promotion activities results

Education about the risks and hazards of chemical substances

The SCM Division has developed educational programs for current and new employees and internal transfers, which are structured by field of specialization and level of experience. The curriculum includes information on the risks and hazards of chemical substances.

Education about chemical substances management

We also provide education relating to chemical substances management for researchers involved in the development of consumer products, chemical products and base materials, and for employees at Kao and partner companies involved in production activities. In addition, we hold in-house lectures and seminars on chemicals management on an annual basis. In 2018, 296 people participated in these sessions.



In-house seminar on chemicals management by an invited outside expert

Collaboration with stakeholders

We aim to collaborate with stakeholders so as to minimize the risks from chemicals which affect on human health and the environment if chemicals are managed inappropriately.

To deepen understanding of social trends and of stakeholders' expectations of companies concerning chemicals management, and to obtain feedback on our SAICM promotion activities, we regularly invite outside experts to give presentations and exchange views. We also strive to realize proactive cooperation with industry organizations, including the Japan Chemical Industry Association (JCIA) and the Japan Soap and Detergent Association (JSDA), so as to contribute toward chemicals management activities in related industries.

In addition, so as to promote appropriate management through chemicals regulation, we exchange views with government authorities within and outside Japan (including Japanese government ministries and the governments of ASEAN member states) and host trainees in collaboration with government agencies.

Furthermore, we collaborate with retailers on the promotion of safety management with respect to product use by customers, and we use tools such as chemSHERPA to promote appropriate management of chemicals in products throughout the supply chain.



→ p. 63 Our initiatives: Risk communication about chemical substances with stakeholders

Mid- to long-term targets and performance

2020 mid-term targets

We are promoting chemical substances management in line with the following mid- to long-term targets, with the aim of realizing a sustainable society.

1. Risk assessment of chemical substances

We select Kao priority assessment substances taking into consideration factors such as the production and usage volume, the exposure level for people and the environment, and priorities in our corporate activities. We then conduct assessment in accordance with our risk assessment policy, and implement appropriate management on the basis of this assessment.



→ Risk assessment policy
chemical.kao.com/global/sustainability/saicm/
article_03.html

Risk assessment of chemical substances is conducted with the following objectives.

- Conduct risk assessments for the Kao priority assessment substances (19 categories) by 2020 and continue this activity after 2020.



→ Kao's Safety Summary of chemicals for priority risk assessment
chemical.kao.com/global/sustainability/saicm/
article_05.html

Examples of the 19 categories

- Alkyl glycosides (a class of non-ionic surfactants): Widely used in everyday household products such as kitchen detergents, household detergents, body soaps, shampoos, etc.
- Polyoxyalkylene alkyl ethers (a class of non-ionic surfactants): Widely used in everyday household products such as laundry detergents, kitchen detergents, household detergents, shampoos, bleach, etc.
- Sodium linear-Alkylbenzene sulfonate (a class of anionic surfactants): Widely used in everyday household products such as laundry detergents, kitchen detergents, etc.
- Polyester resin for use in toner (polyester resin used as a binder in toner)

2. Lifecycle management of chemical substances

We have set the following targets at workplaces where chemical substances are handled to prevent adverse health impacts on workers.

- Conduct risk assessments and implement corresponding measures at workplaces where chemical substances are handled by 2020, and continue to conduct risk assessments for new chemical substances and implement corresponding measures after 2020.

3. Risk communication about chemical substances with stakeholders

We have set the following targets for communicating safety information throughout the supply chain for chemical products that we manufacture and sell, and for ensuring safety, sound use and the ability to take necessary action pertaining to chemical substances.

- Release the safety summaries for 20 Kao priority risk assessment substances by 2020 and continue this activity after 2020.
- Release GPS Safety Summaries* for 150 chemical products by 2020 and continue this activity after 2020.

* GPS Safety Summary

A document providing a summary of chemical substance safety information as a reference for the general public. Besides information about physical and chemical properties, this document also addresses the usage and processing requirements for sound risk management and outlines risk management measures. It is also used to disseminate information to downstream users.

Performance in 2018

The SAICM Promotion Committee set the following project targets for 2018 and conducted activities accordingly.

Performance

1. Risk assessment of chemical substances

1. Conduct risk assessments and compile risk assessment reports for Kao priority assessment substances (three substances).
2. Discuss the risk assessment results with outside experts and with the Japanese Society of Toxicology (JSOT).
3. Publish the paper on risk assessment techniques and methods (an article on the topic of "Improving the Estimation Accuracy of the Environmental Exposure Model" has already been accepted in the Journal of Japan Society on Water Environment).
4. Improve the exposure assessment techniques (exposure assessment for products placed on the Asia markets and for professional-use products).
5. Continue the global roll-out of the Comprehensive Management System for Chemical Substances.

2. Lifecycle management of chemical substances

1. Continue to conduct risk assessment in accordance with the Industrial Safety and Health Law, as well as development relevant methods and to apply them for risk assessment in manufacturing process (workplaces in Japan).
2. Implement GHS* hazard labeling at workplaces for all production facilities in Japan, and extend the implementation areas into production facilities outside Japan.

* GHS

Globally Harmonized System of Classification and Labelling of Chemicals.

3. Risk communication about chemical substances with stakeholders

1. Public disclosure of SAICM promotion activities results. We have released a cumulative total of 16 safety summaries for Kao priority assessment substances, and a cumulative total of 141 GPS Safety Summaries for Kao chemical products, more than any other enterprise in Japan (in recognition of this achievement, we received the JIPS Award from the Japan Chemical Industry Association).
2. Continue to review our mutual communication with stakeholders.

Reviews of performance

In our initiatives relating to chemical substances, we achieved our objectives in all projects. New issues that were identified through the initiatives were shared with the SAICM Promotion Committee, and responses to these issues were incorporated into activity planning for 2019.

In addition, we began discussing our activities and contributions through Kao's chemicals management beyond 2020.



→ p. 62 Our initiatives: Risk assessment of chemical substances/Lifecycle management of chemical substances/Risk communication about chemical substances with stakeholders

Our initiatives

Risk assessment of chemical substances

1. Conduct risk assessments and create risk assessment reports for Kao priority assessment substances in line with the mid-term plan

In 2018, we completed risk assessments for Kao priority assessment substances in three categories scheduled for 2018 (for a cumulative total of 18 categories) according to the mid-term plan, and compiled the results in risk assessment reports. Risk for human and the environment was acceptable level for all three categories. We also revised list of priority assessment substances from FY 2019, taking into account social and environmental changes.

2. Implement the global roll-out of the Comprehensive Management System for Chemical Substances

Based on Kao's Comprehensive Management System for Chemical Substances, we are continuing to strengthen the functionality of the Comprehensive Management System for Chemical Substances with a focus on rebuilding the existing regulatory management system and the Safety Data Sheets (SDS) preparation and management system. We have already begun working on concrete system design, with the aim of building foundations for chemicals management in response to changes in the globally accelerating society and environment.

Lifecycle management of chemical substances

1. Plan and implement risk reduction measures based on risk assessments at workplaces where chemical substances are handled

We conduct risk assessments at workplaces where chemical substances are handled on the basis of the results obtained with the qualitative risk assessment method (the conventional control banding method^{*1}), utilizing the quantitative method with the ECETOC TRA^{*2} tool which has been identified by the EUs REACH^{*3} regulation as a preferred approach for risk assessment. In 2018, we continued to conduct risk assessment, while also integrating the CREATE-SIMPLE^{*4} tool introduced by Japan's Ministry of Health, Labour and Welfare. In order to realize efficient implementation of the risk assessment outlined above, we have developed part of system of the assessment process. This System adoption has already begun at factories in Japan and at other relevant units (for example; Production Technology). The implementation areas are gradually going to extend into production facilities outside Japan in 2019.

The amended Industrial Safety and Health Act in Japan went into force in June 2016. In accordance with the requirements of this law, we are continuing to conduct risk assessments and adopt risk mitigation measures for working procedures which have been newly adopted or changed.

In 2018, we continued to introduce risk assessment into the step of manufacturing process review to ensure that risk assessments of new working procedures are conducted. With regard to cosmetic products, where the number of individual product items is particularly large, we have defined the highest risk rank in each manufacturing area and have implemented risk mitigation countermeasures for each area.

^{*1} Control banding method

A method of assessing the risks of health hazards associated with chemical substances. This is a method for managing chemical substances designed by the International Labour Organization (ILO) that incorporates simple and practical risk assessment methods. It is intended to protect the health of workers in small- and medium-sized companies in developing countries from hazardous chemicals. For each process that requires handling of hazardous chemicals, risks are ranked into four levels according to three component elements: the hazardousness of the chemical, its form (volatility/risk of becoming airborne), and the amount being handled. In addition to indicating general management items to be implemented in each category, this tool also makes it possible to indicate more specific items to be implemented with regard to other general work tasks.

^{*2} ECETOC TRA (European Centre for Ecotoxicology and Toxicology of Chemicals Targeted Risk Assessment)

A risk assessment tool used in REACH, the EU system for registering chemical substances. Able to obtain the risk determination as well as risk management direction.

^{*3} REACH

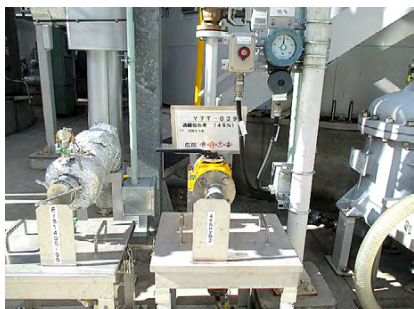
Registration, Evaluation, Authorization and Restriction of Chemicals (EU system).

^{*4} CREATE-SIMPLE (Chemical Risk Easy Assessment Tool, Edited for Service Industry and MultiPLE workplaces)

A simple chemical substance risk assessment tool designed for use in a wide range of workplaces, including service sector workplaces. It was announced by Japan's Ministry of Health, Labour and Welfare in 2018.

2. GHS hazardous labeling at workplaces where chemical substances are handled

To ensure that workers can check the hazards for chemical substances before handling them, since 2016 we have displayed GHS hazard labels at sampling, filling and other workplace areas inside plants that handle chemical substances. As of 2018, labeling had been completed at all nine plants in Japan, while of the group's 21 plants outside Japan, labeling has been rolled out at six chemical plants in the Asia region.



GHS hazard labeling in the workplace (example).

Risk communication about chemical substances with stakeholders

1. Public disclosure of SAICM promotion activities results

We prepare risk assessment reports and compile their safety summaries for publicly disclosure. By providing information on chemicals and management measures, we continue to promote risk-based chemicals management.

In 2018, we released safety summaries for an additional three Kao priority assessment substances (for a cumulative total of 16 summaries), the selection of which took into account factors such as the quantity manufactured, the applications, the quantity used, the exposure amount for people and the environment, and priorities in our corporate activities. Moreover, we released 16 GPS Safety Summaries for Kao chemical products (for a cumulative total of 141 summaries). We continued to set a new record for the largest number of GPS Safety Summaries released by a Japanese business enterprise.

Released in 2018

Polyoxyalkylene alkyl ether sulfate, alkyl glyceryl ether, polyester resin for use in toner.



→ Kao's Safety Summary of chemicals for priority risk assessment
chemical.kao.com/global/sustainability/saicm/article_05.html

→ GPS Safety Summary
chemical.kao.com/global/products/gps/

In 2018, we received the JIPS Award from the Chemicals Management Committee of the Japan Chemical Industry Association in recognition of having disclosed the most GPS Safety Summaries of any company in 2017 and demonstrated excellence in JIPS initiatives.



→ p. 67 Our initiatives: Providing information on chemical products for sound chemical management / Topic: Kao Corporation's Chemical Business unit receives the JIPS Award

2. Stakeholder communication

We promote communication with stakeholders so as to minimize the risks that inappropriate chemicals management poses to human health and to the environment.

Collaboration and communication with consumers

We have discussed risk awareness of chemicals making use of communication tools in the program of the Kao Eco-Lab Museum, our experiential museum. The tools have been created for our stakeholders to deepen understanding of benefit and risks from chemicals.

Regarding risk communication with local residents in the vicinity of our plants and local government authorities, we have exchanged ideas and experiences with other companies. The aim was to share the communication issues and opportunities for further reliability in the society.

Lectures by outside experts and discussion meetings

To deepen understanding about social trends and what stakeholders expect from companies concerning chemicals management, and to obtain feedback on our SAICM promotion activities, we regularly invite outside experts to hold in-house seminars and exchange opinions in meetings of the SAICM Promotion Committee.

In 2018, we invited experts on risk communication and safety to give lectures and engage in the exchanging of opinions.

Collaboration with industry organizations

We have engaged in a wide range of activities so as to contribute to chemicals management in related industries.

As part of our efforts to ensure that the chemical industry as a whole makes a positive contribution to SAICM, we are actively involved in JIPS*, a voluntary initiative intended to strengthen chemicals management.

We also participate actively, in collaboration with various industry organizations, on initiatives relating to consumer products. For example, we have joined forces with the Japan Soap and Detergent Association (JSDA), taking on the role of working group leader in relation to the development of new safety icons (ten types) for consumer products. In 2018, we were engaged in an initiative to realize the globalization of these safety icons and their adoption as an international standard.

* JIPS

Japan Initiative of Product Stewardship. A voluntary initiative based on Global Product Strategy (GPS) principles for enhancing global chemicals management promoted by the International Council of Chemical Associations (ICCA) in response to the adoption of SAICM.



→ Newly developed safety icons
p. 105 Community > Universal Design > Promoting the adoption of new safety icons for consumer products



→ JSDA gave an address on safety icons at the 11th Asia Oceania Soap & Detergent Association Conference (AOSDAC 2017) in Taiwan.
jsda.org/w/01_katud/w_2017-AOSDAC.html (Japanese)

Collaboration with government agencies

In order to promote appropriate chemicals management through chemical substance regulation, we have made effective use of opportunities for communication and exchange with government agencies in Japan involved with chemical substance management, familiarizing them with Kao's SAICM promotion activities, and discussing our framework for chemical substance management in the period from 2020 onwards.

We also cooperate with initiatives led by the Japanese government in relation to chemical substance management that involve other countries in Asia, and actively participate in exchanges of views with government authorities inside and outside Japan, while also hosting overseas trainees and receiving visits from private-sector companies.

In addition, in response to the growing trend toward stronger regulation in the ASEAN region, we have contributed to the rationalization of regulatory controls through the effective utilization of regulatory science findings at meetings relating to the establishment of new regulations.

Collaboration with distributors

In our chemical business division, we have built a strong system for collaboration with distributors. We implement a wide range of activities in areas that include responding to chemical substance related regulations (both within and outside Japan), import/export management (including provisions for GHS, etc.), and Management of chemicals in products that requires a response throughout the supply chain. We are also working to strengthen information sharing in relation to business continuity planning (BCP) response and other fields, so as to be prepared for emergencies such as large-scale natural disasters.

In 2018, we promptly shared much information with distributors to realize revised laws and regulations concerning import/export and chemical substances through the special site named "Extranet" which is for linking each distributor with us. In March and September 2018, we provided distributors and customers with the latest versions of chemSHERPA-CI for our products, and we also asked suppliers to provide chemSHERPA-CI for the raw materials used in their products. In this way, we have been promoting appropriate Management of chemicals in products throughout the supply chain.

Through various activities, we will continue to build understanding regarding chemical substances and raise awareness of the importance of risk management.

Approach to issues of chemical substances related to legal compliance, safety and the environment

Global compliance with chemical regulations

The Kao Group registers chemical substances contained in Kao products manufactured outside Japan and in other Kao products directly and indirectly exported outside Japan according to the quantities and hazard levels, based on the chemical regulations of the relevant countries, and in accordance with Kao's basic strategy for SAICM promotion.

Europe

In the EU, REACH (European regulations on chemical substances) requires registration of all chemical substances manufactured or imported in quantities of one ton or more per year per manufacturer or importer. Registration is also required for each monomer contained in polymers, even if the registrant does not manufacture or import the monomer itself. Working in close cooperation with Kao Chemicals Europe (KCE) and other Kao Group member companies, we have identified substances required for registration each year, and have been registering in accordance with REACH requirements.

We have completed registration of all substances scheduled to be registered without delay by the final deadline, at the end of May 2018. Following registration, we continue to fulfil our corporate responsibility as a lead registrant or as one of the co-registrants for detailed assessment conducted by the European Chemicals Agency (ECHA).

Americas

In the United States, the TSCA*¹ was amended in June 2016. There were no major changes in the notification process for new chemical substances. Nevertheless, we have been taking actions in response to the more rigorous assessment of new chemical substances by the law and submitting the required documents.

TSCA inventory has been reviewed under the amendments of the TSCA. Kao Specialties Americas LLC has completed the submission of data regarding chemical substances manufactured in or imported into the U.S. within the specified period.

Asia (China, South Korea, Taiwan, Thailand, Vietnam)

China and other countries and regions in Asia are also moving quickly to make registration mandatory for products corresponding to new chemical substances and hazardous chemical products. We are working together with local Kao companies to submit the relevant notifications before manufacture or import of these products.

China

Since 2010, The Measures for Environmental Administration of New Chemical Substances in China have required registration of newly manufactured and imported chemical substances. In addition, following the explosion that occurred at a warehouse in the Binhai New Area in Tianjin in 2015, registration requirements for products that contain hazardous chemicals have become more stringent. In cooperation with local Kao companies in China including Kao (China) Holding, we have completed document submission and registration before manufacture or import of relevant substances. In cooperation with local

subsidiaries, the renewal registration for hazardous chemicals that will expire by 2018 has been completed. In 2019, we will monitor enactment of related new legislation and amendments of the current law and share this information with the relevant divisions to comply with legal requirements without delay.

South Korea

In South Korea, after the Act on the Registration and Evaluation of Chemicals (K-REACH)*² came into force in 2015, we took actions to comply with the legal requirements, including registering and reporting quantities for new and existing chemical substances. Through our South Korean agent, we have been participating in two consortiums on existing chemical substances subject to registration, and we successfully completed registration within the registration deadline of June 2018. With the partial revision of K-REACH in January 2019, manufacturers/ importers that manufactured or imported at least one ton per year of an existing substance between 2016 and 2018, shall submit application for pre-registration between 1 Jan. 2019 and 30 Jun. 2019, and we have been working to identify relevant substances.

*1 TSCA

Toxic Substance Control Act of the United States.

*2 The Act on the Registration and Evaluation of Chemicals (K-REACH)
The Act on the Registration and Evaluation of Chemicals of South Korea.

Taiwan

In Taiwan, we have calculated the total quantities every two months and submitted reports for chemical substances manufactured or imported in excess of 100 kg per year in cooperation with Kao Taiwan, in accordance with the requirements of the Toxic Chemical Substance Control Act. Regarding the Phase Two registration for existing chemical substances that was originally scheduled to be implemented in January 2019, implementation by the government has been delayed, and we are continuing to monitor developments, including the passage of new legislation. In addition, as it is anticipated that a new annual quantity reporting requirement will be introduced, we are working to share information on the targeted substances through collaboration with Kao Taiwan.

Thailand

In Thailand, the government announced the preparation of an existing chemical substances inventory and registration system for new chemical substances in August 2015. The registration system for new chemical substances does not yet have a timeline. For existing chemical substances inventory, we continue to submit notifications in cooperation with Kao Industrial (Thailand). We have created a list of the required products and completed preliminary notifications more or less on schedule, mainly for products that we have a record of handling. We will continue to monitor announcements on the registration system for new chemical substances and existing chemical substances inventory, and we plan to prepare notifications and take the appropriate steps for existing products and chemical substances as our secondary response.

Vietnam

Vietnam is preparing an existing chemical substances inventory based on its Law on Chemicals. Working in collaboration with Kao Vietnam, we completed the

submission of required documents by October 15, 2018, the deadline for Stage One re-registration.

Other countries

We are taking the requisite steps to comply with laws on the manufacture, import and use of chemical substances in Indonesia, Malaysia, the Philippines and Singapore.

Providing information on chemical products for sound chemical management

We communicate safety information for chemical products to ensure safety related to chemical substances throughout the supply chain and to ensure that the chemical substances are used appropriately and that any necessary actions are taken.

1. GHS-compliant SDS and product labeling

We issue GHS-compliant SDS for chemical products in countries that have introduced GHS, as well as promoting GHS-compliant product labeling.

For the Chemical Business, including Kao Japan and Asian affiliates, we have created GHS-compliant SDS and product labels as well as conducting integrated management using the Comprehensive Management System for Chemical Substances since 2008.

In 2018, we continued to use GHS labeling for products marketed in countries and regions that have introduced GHS (Japan, the EU, the U.S., Taiwan, South Korea, China, Singapore, Thailand, Indonesia, Vietnam and Malaysia) from our plants in Japan and Asia. We have also been monitoring regulatory trends in countries that have adopted GHS, and we have updated SDS and labels as necessary.

In Japan, with a revision of the Japan Industrial Standards (JIS) scheduled for 2019, we are preparing to update both SDS and product labels.

In countries that have introduced GHS outside Japan, in order to facilitate global transactions, we are monitoring regulatory trends and promoting the creation and issuance of GHS-compliant SDS and product labeling as we do in Japan.

At the same time, recognizing the need in countries throughout the world for the rapid creation and effective management of high-quality GHS-compliant SDS and product labels, we are working to develop an even more advanced Comprehensive Management System for Chemical Substances.

2. Providing and obtaining information on chemicals in products

To comply with increasingly stringent regulations in various countries as well as with industry standards, we proactively manage the chemical substances contained in chemical products (management of products containing chemical substances). We are a founding member of JAMP*¹ and efficiently manage and communicate information on products containing chemical substances on an ongoing basis using the standardized forms provided by JAMP.

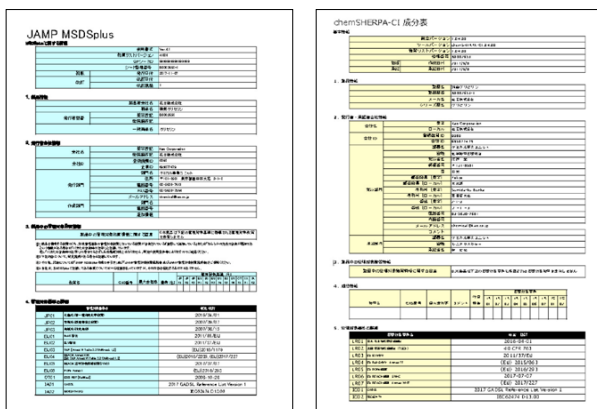
With regard to chemSHERPA, a new information communication scheme for products containing chemical substances, developed at the initiative of the Japanese Ministry of Economy, Trade and Industry and entrusted to JAMP for its operation, we led the industry in switching over from MSDSplus to the revised version of chemSHERPA-CI*² (Substance List Ver. 1.04.00) in September 2017. chemSHERPA-CI currently has websites in multiple languages (including Japanese, English and Chinese).

In 2018, in regard to our products in Japan and the products of Kao affiliates in Asia, a revised version of chemSHERPA-CI was issued from March 2018 (Ver. 1.05.00), as well as a revised version of chemSHERPA-CI

Chemical substances 103-1, 103-2, 103-3 Our initiatives

(Ver. 1.06.00) from September 2018. We distributed the new versions to customers via our distributors and disclosed them in Japanese, English and Chinese language versions on our website. We have also been receiving chemSHERPA-CI data from suppliers regarding the raw materials used in chemical products, and have been implementing management of the substances contained in chemical products based on the reported information.

In the future, we will continue to cooperate with the relevant internal and external divisions and groups and actively engage in initiatives to promote improvements and to strengthen management of products containing chemical substances in the supply chain.



The image shows two side-by-side screenshots of chemical safety data sheets. The left screenshot is titled 'JAMP MSDSplus' and shows a standard MSDS layout with sections for product identification, hazard information, and handling instructions. The right screenshot is titled 'chemSHERPA-CI 成分表' and shows a more detailed chemical composition table with columns for chemical name, CAS number, and other identifiers.

Examples of MSDSplus output (left) and chemSHERPA-CI output (right) for a Kao chemical product.

3. Disclosure of risk information on chemical substances (GPS Safety Summaries)

We are an active participant in the Japan Initiative of Product Stewardship (JIPS), a voluntary initiative aimed at strengthening chemicals management through product stewardship advocated by the International Council of Chemical Associations (ICCA). The Japan Chemical Industry Association has been implementing

the initiative, which constitutes an effort by the chemical industry to make a major contribution toward SAICM, since 2009. To this end, we are actively engaging in communication related to chemical substances with customers. We have always been proactive in providing SDS, chemSHERPA, and eSDS*3 for European disclosure of chemical products, as part of communication efforts of chemical substance. In recent years, we have proactively made GPS Safety Summaries available on the Kao Chemicals website and ICCA's GPS Chemicals Portal to outline, in an easy-to-understand manner, hazard information and information on product risks. We consider publication of GPS Safety Summaries as an important element of risk communication on chemical substances with stakeholders, which constitutes part of our SAICM promotion activities.



- GPS Safety Summaries
- Kao Chemicals website
chemical.kao.com/global/products/gps/
- ICCA's GPS Chemicals Portal
icca.cefic.org/Home/

In 2018, we once again published safety summaries for Kao priority assessment substances on the Kao Chemicals website, as the deliverables of risk assessment. We prepared 18 GPS Safety Summaries in Japanese and English for chemical products related to these substances and released them on the Kao Chemicals website and on the ICCA's GPS Chemicals Portal. We also prepared and published 16 GPS Safety Summaries for products with REACH registration. As a result, the Kao Group has published a total of 141 GPS Safety Summaries globally. Both last year and this year,

we published more GPS Safety Summaries than any other company in Japan.

In 2019, we will continue to publish GPS Safety Summaries to encourage customers and the wider society to make effective use of GPS Safety Summaries, and to engage in risk communication on a global basis.

*1 JAMP

Joint Article Management Promotion-consortium.

*2 chemSHERPA-CI

A chemical product data form sheet for communicating information on specified chemical substances corresponding to MSDSplus.

*3 eSDS

An extended Safety Data Sheet (SDS). Adds risk appraisal and risk management content to the conventional SDS.



Kao Corporation's Chemical Business unit receives the JIPS Award

In February 2018, Kao Corporation's Chemical Business unit received the JIPS Award. This marked the second consecutive year that Kao had received this award.

The JIPS Award was established by the Chemicals Management Committee of the Japan Chemical Industry Association (JCIA) in 2017 to recognize companies that have demonstrated excellence in voluntary GPS/JIPS activities for chemicals management throughout the supply chain.

We received this award in recognition of having released a large number of GPS Safety Summaries, and of our proactive pursuit of chemical substance management.



Awards ceremony

Strengthening export and import management of chemical products

As the Chemical Business continues to globalize at an increasingly fast pace, the need to introduce a system for import and export management has risen sharply. This includes the need to automatically check legal regulations during importing and exporting at Kao companies related to the Chemical Business, and requests from inside and outside Kao to strengthen our system of checks in order to comply with legal regulations.

We adopted a new import/export management system at 11 companies related to the Chemical Business in 2017, and we are continuing to implement appropriate system operation.

In line with the termination of the phased REACH registration in 2018, we have adjusted our check items and completed the process of reflecting them into the system. We will continue to take appropriate measures in accordance with changes in laws and regulations.

Activities relating to legal compliance in Japan

1. Compliance with the Chemical Substances Control Law

The Act on the Evaluation of Chemical Substances and Regulation of Their Manufacture, etc. (Chemical Substances Control Law) mandates reporting on product quantities by usage application. We continued to survey detailed usage information on chemical products in 2018 with the cooperation of sales distributors, and we are maintaining the most up-to-date information and reporting product quantities.

In relation to the Priority Assessment Chemical Substances that were added under the law in 2018, we revised the SDS for the target chemical products and provided the relevant information to customers and sales distributors.

The changes in the submission forms and documents required for reporting small quantities of new substances are coming into effect in 2019 in accordance with the 2017 amendments to the Chemical Substances Control Law. In line with these changes, we are sharing information within the group companies and putting in place the systems needed to enable prompt, accurate reporting pursuant to the Chemical Substances Control Law.

In 2019, we will continue to survey and update usage information on chemical products with the cooperation of sales distributors and to provide information on the Priority Assessment Chemical Substances for the target chemical products according to the obligation of the Law.

2. Compliance with the Industrial Safety and Health Act

For the substances with mandated labeling and notification added under the Industrial Safety and Health Act, which was amended in 2018, we have revised the SDS for the target chemical products and provided the SDS to the relevant customers and sales distributors. In 2019, we will continue to take steps to comply with the addition of new substances to the scope covered by the Industrial Safety and Health Act.

We will also continue our efforts to ensure worker safety by properly implementing hazard assessment and new substance reporting with respect to new chemical substances falling within the scope of the Industrial Safety and Health Act that are handled by companies within the group companies and by contract manufacturers.

Revised SDS for a new priority assessment chemical substance added pursuant to the Chemical Substances Control Law (example)

Emission Management of Chemicals

Monitoring and controlling emissions of chemical substances subject to the Japanese PRTR system

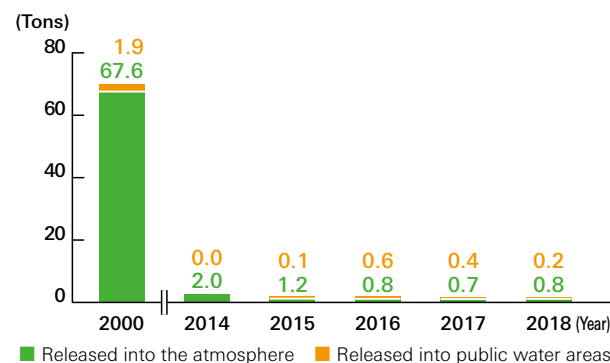
We began activities in this area by setting a voluntary target for annual emissions of one ton or less for each substance from each plant in FY 2000. We achieved this target in FY 2002. Since then, we have continued to achieve this voluntary target, excluding leaks of chlorofluorocarbon and similar emissions.

The number of chemical substances subject to the Japanese PRTR system of which we handled over one ton in 2018 was 75, and the total discharge of such substances into the atmosphere and public water areas was 1.0 ton. In addition, we are voluntarily monitoring and controlling releases and transfers (in the same way as would be done for chemical substances subject to PRTR) of chemical substances that the Japan Chemical Industry Association has specified as being subject to voluntary surveys.



→ List of Emissions of Substances Subject to PRTR System
www.kao.com/global/en/sustainability/environment/activity-data/chemical-management.html

Total emissions of chemical substances subject to the PRTR system



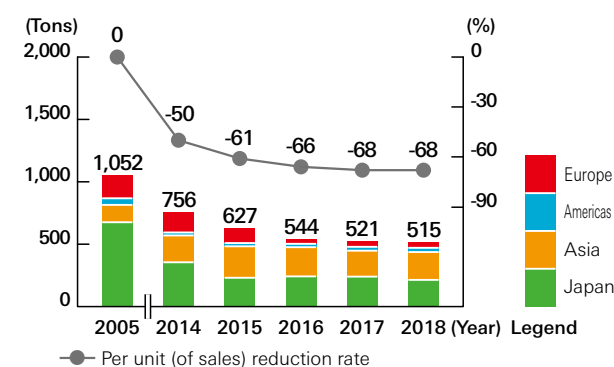
Management of volatile organic compound (VOC) emissions

Although we have no facilities subject to the VOC emission regulations provided in the Air Pollution Control Act, we work to voluntarily cut VOC emissions.

For the 100 VOC substances defined in the notice issued by the Director General of the Environmental Management Bureau, Ministry of the Environment, we set voluntary targets on the annual atmospheric emissions from each plant for each substance (5 tons or less in 2005, 3 tons or less in 2009, 1 ton or less in 2010), conducted emission reduction activities and accomplished our targets. We are managing VOC emissions with the current target of maintaining our activities.

The group in Japan handled 35 types of VOCs in quantities over 1 ton in 2018, with total emissions into the atmosphere of 10 tons.

NOx emissions

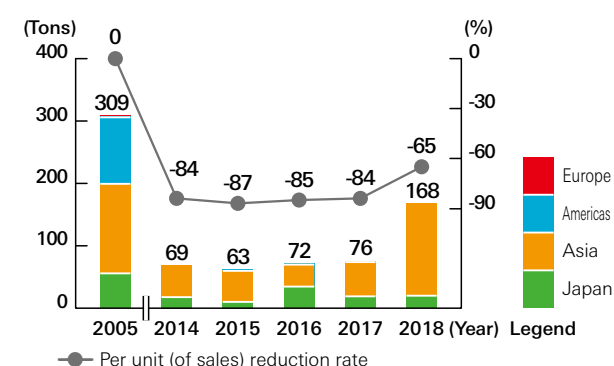


* Boundary: All Kao Group production sites.

* Assurance provided for NOx emission figures.

* Per unit of sales is calculated based on Japanese standards up to fiscal 2015, and on International Financial Reporting Standards (IFRS) from fiscal 2016.

SOx emissions



* Boundary: All Kao Group production sites.

* Per unit of sales is calculated based on Japanese standards up to fiscal 2015, and on International Financial Reporting Standards (IFRS) from fiscal 2016.

Examples of Kao products that contribute to reducing the environmental impact

In this section, we introduce some Kao eco-chemical products that help to reduce the environmental impact and contribute to the sustainability of the world.

Green Innovation and Eco Technological Solutions

By emphasizing the two axes of Green Innovation and Eco Technological Solutions in chemical product development, we are implementing measures to reduce environmental impact through revolutionary new technologies.

Green Innovation

Green Innovation involves creating materials that are competitive yet have a low environmental impact. More specifically, we draw on our strengths and carry out global investment to increase our offerings of natural fats and oils derivatives with high added value. In addition, we will further cultivate the upstream and downstream domains for these derivatives.

For example, we are making use of non-edible raw materials in an effort to resolve the significant social issue of food shortages. We are also focusing on downstream raw material development, one of our areas of expertise, which uses biomass materials in place of fossil materials.

Eco Technological Solutions

We ascertain customer needs and issues from the perspective of reducing environmental impact, and provide solutions that boost customer value through groundbreaking product development.

Product examples

Lunajet water-based inkjet ink

During further applications of the pigment nano-dispersion technology that we had developed thus far, we successfully developed the world's first water-based inkjet ink for use in printing on soft packaging film substrate that features a VOC-free design* with a low environmental impact. It is now possible for us to provide soft packaging film-printed material that combines high quality with a low environmental impact. We also confirmed that this water-based inkjet ink technology can be applied to water-based gravure-printing ink.

In 2018, we showcased a printer using *Lunajet* at the International Graphic Arts Show 2018 (IGAS 2018), a major conversion technology show and comprehensive international printing technology and solutions exhibition, aiming to further expand the range of applications of this new technology. In recognition of the new technology that realizes a level of image durability comparable to that of ultraviolet curing ink, a Japanese confectionery manufacturer has already adopted a printer that uses *Lunajet* ink for printing its packing materials.

* VOC-free design

"VOC-free" is defined as emitting less than 700 ppmC (in carbon conversion terms) of volatile organic compounds (VOC) during the printing process.

VOC (volatile organic compound): VOC is a collective term for organic compounds that are volatile and are transformed into gaseous form in the atmosphere. In Japan, VOC emissions are regulated by the revised Air Pollution Control Act.



Low-temperature fixing toner

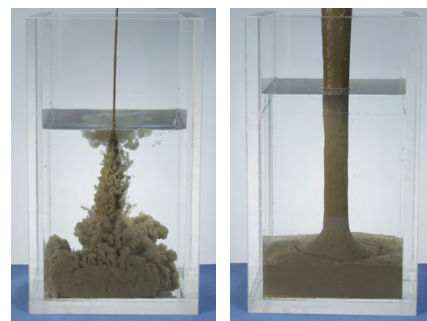
More than half of the electric power used by office photocopiers is consumed in generating heat energy to melt the toner. To reduce the environmental impact of copiers and printers, it is important to develop toner binders that can be melted and fixed at lower temperatures.

Our polyester resin toner binder was developed to meet these requirements. Unlike conventional toners, our new toner uses a polyester resin binder, which can melt at temperatures more than 30°C lower than conventional toners. This toner is highly effective in affixing to paper, and it enables both high-speed printing and energy conservation.

Visco Top high-performance specialty thickener

When undertaking civil engineering work near water (for example, on riverbanks or on the coast), it is vitally important that measures are taken to protect the water from being contaminated, so as to prevent deterioration in water quality. In the case of bridge pier construction for long bridges or suspension bridges that cross ocean straits, because the piers are actually built in the riverwater or seawater, special underwater concrete that has high viscosity and is resistant to washout is used. Furthermore, when construction is undertaken near underground watercourses, care must be taken not to contaminate the underground water. For work in this kind of water-related environment, the use of additives to increase the viscosity of inorganic materials such as grouting materials and concrete can enhance underwater anti-washout performance.

We have developed *Visco Top*, a high-performance specialty thickener that provides unprecedented viscosity for grouting materials and concrete, and makes it possible to undertake construction work without causing harm to the riverine or ocean environment. *Visco Top* was used in the removal of high concentration contaminated water from trenches at the Fukushima Daiichi Nuclear Power Plant.



Without the addition of *Visco Top*

With the addition of *Visco Top*



Kao's slurry rheological modifier (Product name: *Visco Top*) received the Contribution Award of 50th Ichimura Prize in Industry

We received the Contribution Award of the 50th Ichimura Prize in Industry, organized by the Ichimura Foundation for New Technology, for our contribution to reducing environmental impact through our slurry rheological modifier development work.

Founded in 1968 to realize the vision of the late Mr. Kiyoshi Ichimura (founder of Ricoh Co., Ltd.), the Ichimura Prize in Industry are awarded to organizations and individuals that have made a major contribution toward the development of outstanding domestic technology in the form of technology development relating to scientific and technological progress, industrial development, cultural advancement, or other areas contributing to the wellbeing and safety of Japan's citizens.



Award ceremony

Kao's approach

Our business is made possible by the many benefits of biodiversity across the entire lifecycle. To prevent the loss of biodiversity on the planet, we strive to use those benefits sustainably to prevent exhausting them. We also work to reduce the impacts of our business on biodiversity and promote social activities that lead to the improvement of biodiversity.

Kao's creating value to address social issues

Social issues we are aware of

Based in biological diversity, nature provides a wealth of resources that support the infrastructure of human society. Yet, loss of biodiversity due to human activities has now become a problem across the globe. In the production and procurement of palm oil, paper, and pulp—raw materials used in many kinds of products—not only do irresponsible corporate activities cause environmental damage, marked by deforestation and the loss of biodiversity, but also serious social issues, such as human rights violations of local area residents and farm workers.

Another problem is the fact that the general public is not well informed that the biodiversity loss occurring globally today corresponds closely to our consumption activities. We recognize the vital importance of mainstreaming biodiversity concerns in stopping the loss of biodiversity—one of the Aichi Biodiversity Targets adopted at COP 10 in the Strategic Plan for Biodiversity 2011–2020.

Kao's creating value

With regard to palm oil, paper and pulp, which are the main raw materials essential to our business, we are setting specific targets for both purchasing certified

products and ensuring traceability to the place of origin—activities that contribute to achieving the SDGs. These actions will expand the production of raw materials in ways that do not involve deforestation or human rights violations. Rather, they will contribute to the formation of a sustainable society that maintains the benefits of biodiversity.

In addition, we are carrying out green space conservation activities at all Kao Group sites and plants to preserve biodiversity. Outside the company we engage in activities that promote biodiversity conservation in local communities and support biodiversity education provided by school teachers. We believe such efforts will contribute mainstreaming biodiversity concerns as employees become more aware of the importance of biodiversity and share this passion with their local communities.

Risks related to realization of our vision by 2030

The palm oil used as a raw material by Kao is also a food, while pulp and paper become transformed in innumerable ways for use in people's lives. With global population growth and economic development, the demand for palm oil, paper and pulp is growing worldwide. If we do not give consideration to sustainability, these resources will not last long, and an inability to procure raw materials will call our business survival into question.

Unless we are able to procure sustainable raw materials free of involvement with deforestation or human rights violations, there is a risk that our corporate reputation takes a hit, we lose society's trust and have difficulty continuing to do business.

Opportunities related to realization of our vision by 2030

We defined our Basic Policies on Conservation of Biodiversity in 2011, and declared our commitment to Zero Deforestation Declaration in 2014, taking a leadership role in biodiversity conservation. We are working to procure sustainable palm oil, paper and pulp for long-term business continuity. We are also working to develop substitutes for palm oil, for which demand will only continue to grow. Our focus is on microalgae, which are natural, high-yield sources of non-edible oil. At the same time, we are working to develop the oil production technology needed, with the goal of industrial production. These activities will contribute to the stable procurement of raw materials at low cost.

Contributions to the SDGs



Policies

In 2011 we drafted the Basic Policies on Conservation of Biodiversity based on risk analyses relating to risks to biodiversity in business conducted by relevant divisions within the company in 2010. These basic policies, which are reviewed annually, consist of seven policies: (1) Identify the relationship between our business activities and biodiversity, (2) Reduce the impacts of our business activities on biodiversity, (3) Develop innovative technologies, (4) Comply with relevant international agreements, (5) Make efforts to conserve local ecosystems in the vicinity of our business activities, (6) Raise awareness of biodiversity among all employees, and (7) Pursue cooperation with external stakeholders.



→ Basic policies on conservation of biodiversity and action policies and examples for each item in the basic policies
www.kao.com/global/en/sustainability/environment/statement-policy/statement/biodiversity-policy/

Framework

We define conservation of biodiversity as an area of environmental conservation in our Responsible Care activities. To ensure company-wide progress on biodiversity conservation activities in the medium to long term, we manage our policies, targets, plans and activities related to biodiversity under the Responsible Care Promotion Framework.



→ p. 196 Governance > Responsible care activities/ framework

Education and promotion

From 2011, when we defined our Basic Policies on Conservation of Biodiversity, to 2012, we conducted e-learning courses for all employees of the Kao Group in Japan, about these policies, and about the importance of biological diversity, international trends and the significance of conservation efforts that we would be taking based on the policies. Since 2013, we have conducted environmental education each year that includes biodiversity topics for new employees. For employees outside of Japan, we are conducting awareness-raising activities on biodiversity through such venues as the annual Global RC Meeting held in Japan. We have also begun company-wide green space conservation activities that giving consideration to biodiversity. We aspire to deepen understanding of biodiversity among all employees through their active participation in these activities.

Collaboration with stakeholders

At our sites around the globe, we advance biodiversity conservation activities in cooperation with various stakeholders, including government agencies, local governments, academic institutions, NPOs and NGOs, to promote business and social contribution activities that give consideration to local biodiversity.

We have participated in the Japan Business Initiative for Biodiversity (JBIB) since its inception in 2008. In recent years, we have become involved in running the organization. We engage in a diverse range of JBIB activities in cooperation with companies in other industries, including holding events such as JBIB Ikimono Days (a participatory event for monitoring living things), and doing research on how companies can contribute to biodiversity conservation.



→ Corporate Citizenship Activities Report
www.kao.com/global/en/sustainability/society/social-reports/

Mid- to long-term targets and performance

2020 mid-term target

We strive to protect biodiversity through responsible raw materials procurement and other measures. In raw materials procurement, detailed 2020 objectives are set for the main raw materials of palm oil, paper and pulp.

Anticipated benefits from achieving mid- to long-term targets

Cost reductions or profit increase

Considerable costs are involved in procuring sustainable raw materials and green space conservation at company sites, but we consider these activities our social responsibility and necessary to make our business sustainable. We expect these activities to boost our reputation and give rise to direct and indirect financial benefits.

Impacts on society

We hope that the process to achieve our mid- to long-term targets leads to the preservation of forests at raw material procurement sites and respect for the human rights of local communities, allowing us to make progress toward achieving a sustainable society.

Targets for 2019

We have set the following as our targets related to biodiversity.

1. Promote sustainable raw materials procurement

We will achieve 100% sustainable procurement of palm oil, paper and pulp by 2020. This activity corresponds to our 2020 Zero Deforestation Declaration.

2. Promote business and social contribution activities with consideration for local biodiversity

Based on the results of the biodiversity surveys of all Kao Group sites with plants conducted in 2018, each site will formulate an action plan and targets, and start implementing them in 2019.

3. Reduce use of copy paper

As an activity that all employees can participate in, we have started reducing the use of copy paper at the Kao Group in Japan. Our 2019 target is a 7% reduction in sheets printed per person compared to 2017.

4. Green procurement

We are promoting green procurement, which places priority on purchasing products with the least possible environmental impact. We have been taking action in this area based on Act on Promoting Green Procurement. We have set our 2019 target green purchasing rate in Japan at 95% or higher.

Performance in 2018

Performance

1. Promote the sustainable procurement of raw materials

In order to achieve our 2020 targets, we promoted confirmation of both zero deforestation in and traceability to the place of origin.



→ p. 139 Corporate Culture > Sustainable and responsible procurement

2. Promote business and social contribution activities with consideration for local biodiversity

We introduced global biodiversity assessment criteria, and implemented biodiversity surveys for all global production sites.

3. Reduce use of copy paper

The number of sheets printed per person has been reduced by 10% compared to 2017 and has already achieved the 2019 target.

4. Green procurement

Our green procurement rate in Japan was 87%.

Reviews of performance

It is a great achievement that we now have a system in place to manage the progress of biodiversity activities at each site and in each division.

Our initiatives

Understanding relationships between business and biodiversity

Kao completed an ecological footprint assessment in 2013. The assessment found that the majority of the environmental impact from our business activities resulted from: carbon sinks, land on which oilseed crops were grown, cattle pastures, forests grown for pulp and paper, and fishing grounds affected by surfactants*.

* BIOCITY. 2013, 56, 82.

Reducing the impact of business on biodiversity

To reduce our impact on biodiversity, we are continually working to (1) reduce CO₂ emissions associated with business activities, (2) reduce the use of raw materials and (3) switch to raw materials with lower environmental impact.



→ p. 35 Conservation > CO₂

→ p. 139 Corporate Culture > Sustainable and responsible procurement

Technology development for valued use of the benefits of biodiversity

We are continuing to develop technologies that use natural, non-edible oil sources as alternatives to palm kernel oil, for which demand is expected to increase in the future. We are developing oil production technology that utilizes microalgae, which can be obtained in high-yields, as well as Bio IOS, which has made it possible to utilize biomass residue as an activator.

Compliance with international agreements

We are promoting business activities in accordance with international agreements and related national laws on biodiversity determined by the Convention on Biological Diversity and its contracting parties, Conference of the Parties.

Business activities with consideration for the local ecosystem

Introducing global biodiversity assessment criteria

In addition to the sustainable procurement of our main raw materials of palm oil, paper and pulp, we are committed to activities that take into account the local biodiversity at each of our business sites around the world.

While there are several certification systems in Japan that assess corporate activities aimed at conserving biodiversity, there are almost no such certification systems overseas, and a common global system of assessment has not yet been created. For that reason, we introduced our own biodiversity assessment criteria in 2017, based on the Guidelines for Sustainable Business Sites created by Japan Business Initiative for Biodiversity (JBIB), which is adopted to the Association for Business Innovation in harmony with Nature and Community (ABINC) certification, one of the Japan-based certification systems.

In 2018, we conducted an evaluation of all Kao Group sites with plants, and identified the current level of such activities at each site and clarified points for improvement. During the evaluation process, many excellent ideas and activities from each site emerged and were shared within the group. In 2019, based on the results of this evaluation, each site will formulate an action plan and targets and make plans to carry out specific activities.

Kawasaki Plant acquires third-party certification (Association for Business Innovation in harmony with Nature and Community® certification—ABINC certification)

The Kawasaki Plant, located in a corner of the Kawasaki Coastal Industrial Area, supplies our main products such as *Attack* and *Humming* to the Tokyo metropolitan area. There are very few green areas belonging to the town or businesses in this district.

When the Kawasaki Plant purchased nearby land and built a new plant in 2000, it piled up the excavated soil and transplanted the trees that were scattered around the site to create a green space about 7,000 m² in size. In the more than 15 years since then, as a result of maintaining the area in its natural state without interference, it grew into a natural woodland with a mix of plants and trees of varying heights. A walking path was put in to give employees a quiet, densely wooded area to relax in that one would never expect to see in a highly industrialized area.

To better conserve local biodiversity, the forest was thinned so that sunlight could penetrate, and the thinned wood was reused for chairs and “ecostacks” (wood piles for insects and other creatures). We planted flowers, fruit trees and plants that wild birds like, and set up birdhouses for wild birds and stone structures with crevices that could become hiding places for little creatures.

We then asked a company specializing in environmental research to conduct a biological survey, which confirmed the existence of 176 species of plants, 11 species of birds and 56 species of insects. Above all, everyone surprised that this urban oasis had become a habitat of the Chinese windmill in which grew patches of Dutchman’s pipe, the grass upon which the butterfly larvae feed. Currently, our

employees are playing a leading role in protecting the green space as a breeding ground for these creatures, rarely found in an urban setting.

These steady and thorough ongoing activities were recognized with the Kawasaki Plant acquiring in 2018 ABINC certification from the Association for Business Innovation in harmony with Nature and Community (ABINC).



Kawasaki Plant and green space.

Insects, birds and plants that inhabit the Kawasaki Plant grounds



Chinese windmill (adult)



Chinese windmill (larva) and Dutchman's pipe (weed grass)



Atractomorpha lata (grasshopper)



Common skimmer (dragonfly)



Japanese tit



Brown-eared bulbul



Skunkvine



Wax myrtle

Wakayama Plant participation in the Enterprise Forest Project

The Wakayama Plant has been participating in the Enterprise Forest Project organized by Wakayama Prefecture since 2007. Every year many employees and their families from the Wakayama Plant take part in such activities as planting local species trees and weeding in a mountain forest area belonging to Kimino-cho, which is the source of the Kino River and the water used by the plant. Thanks to ten years of these activities, a healthy forest has been raised, and in 2017 we added a new activity site known as the Kao Forest Oishi.

As a new initiative in 2018, employees are raising seedlings at home to grow saplings such as Honshu maple and Japanese nutmeg that were collected in the activity area for the purpose of protecting the genes of local flora, and replanting those seedlings in the area. By November 2018 more than 100 people had participated in the afforestation activity.



Employees and others who participated in tree-planting at the Kao Forest Oishi.

Kashima Plant receives award at Low Carbon Cup 2018

Low Carbon Cup is a contest where students, citizens, companies, and local governments all over Japan present efforts they have taken toward achieving a low-carbon society. In 2018, 1,167 groups entered and 30 groups reached the finalist stage.

The Kashima Plant participated in Low Carbon Cup 2018 as a representative of Ibaraki Prefecture after having received the Grand Prix Award at Cool Earth Ibaraki Contest 2017, a conference for announcing global warming prevention activities engaged in by citizens and companies in Ibaraki Prefecture. We introduced “planned activities to create green spaces with a 50-year consideration of the future”—activities that have been going on since the plant was built in 1980. The plant’s steady efforts to revive a forest rich in biodiversity on sandy soil and tree-planting efforts to reduce carbon in the atmosphere were commended with an award.



Low Carbon Cup 2018.

Raising awareness among employees and sharing information

Participation in JBIB Ikimono Days at the Kawasaki Plant and Kashima Plant

Ikimono Days is a project sponsored by JBIB for participating companies to carry out animal and plant monitoring and afforestation activities in their company’s own green space and nearby green spaces with the aim of “mainstreaming biodiversity concerns”—set as one of the COP 10 Aichi Biodiversity Targets. Kao was involved in both running the project and its related activities, and the Kawasaki Plant and Kashima Plant participated in the event.

The Kawasaki Plant held an event in May primarily for new employees, but also including the plant manager and staff involved in environmental protection, with 41 people participating in total. On the day of the event, experts on biological research were invited in to give lectures on the importance of biodiversity and the significance of companies working to conserve biodiversity, after which we carried out a biological survey. The participants had the chance to experience for themselves what living creatures inhabited the green spaces they always saw in passing, such as the Japanese gecko, and from time to time they could be heard shouting about what they had found. It was a meaningful day, giving everyone an opportunity to think about biodiversity through the event.



Kawasaki plant employees listening to an expert’s explanation.

Tree-planting activities at the Kao (Taiwan) plant and participation in a seedling distribution event by a local NGO

On government-owned bare land in Hsinchu County, where the plant is located, 51 people from Kao (Taiwan) joined in planting 100 seedlings of trees native to Taiwan with the cooperation of experts. A total of more than 300 trees will be planted over the next three years. On the same day as the tree planting, 51 people from Kao (Taiwan) participated in a local NGO program to distribute 1,000 seedlings of plants native to Taiwan to tourists at nearby Hsinchu HSR Station.

These activities were featured in a total of 52 reports by 38 media outlets and became a big topic in Taiwan. Since then, we have been promoting various activities that promote biodiversity conservation, such as creating a composting system that uses local waste at the above-mentioned tree-planting sites.



Tree-planting activities



→ Kao (Taiwan) Biodiversity Conservation Activity Videos
www.youtube.com/watch?v=Hnj7YAvWY2M

www.youtube.com/watch?v=ZdgHVRBSrBQ&feature=youtu.be

Kao Corporation (Spain) (KCSA) produces materials for learning about biodiversity

In 2018, KCSA produced materials for learning about biodiversity based on the results of a biodiversity survey at its three plants. The materials are used effectively for explaining biodiversity to plant visitors and for raising awareness among employees.

Materials produced

- A detailed booklet on the plant's ecological network, non-native species, the water cycle, etc.
- A pamphlet that introduces highlights about the plant from the perspective of biodiversity.
- A poster with photographs of animals such as wild birds and insects that inhabit the plant grounds.



Employee volunteers in Post Tsunami Monitoring Project

In 2018, 10 employees went to local areas to support fieldwork. The data obtained in the fieldwork are used in restoration plans that take biodiversity into consideration and for conservation of species.

Collaboration with people outside the company

Kao Creating Forests for Everyone program

In March 2018, Kao designated a total of 15 groups, comprising 7 groups involved in forest creation and 8 groups involved in environmental education, as recipients of fiscal 2018 subsidies. To date, a cumulative total of 462 groups have received support through the program, with 410,000 citizens participating in the activities.

FURUSATO Environment Conservation Project in Northern Thailand

In the five years from 2012, we reached our goal of planting 42,500 trees on 35 ha of land. While contributing to the reforestation of northern Thailand, the project also raised awareness among local residents for creating sustainable forests and their leadership in deciding how to use and coexist with the created forest.

The first phase of the project has finished. The second phase of the project began in April 2019 and will last for three years. During this time we plan to follow up on the reforestation to create employment and obtain relevant technologies for local residents.

Sending teachers to fieldwork projects through the Kao Earthwatch Teachers' Fellowship

A total of 10 teachers participated in five projects in 2018. The teachers take back the experiences they gained in the fieldwork to their schools and communities to use in environmental education. In November, we held a reporting session with teachers from this fiscal year and past years to share information on environmental education they conducted. To date, 158 teachers have participated in 80 projects.

Kao's approach

Packaging serves an important role and function as part of our products, protecting contents and preserving quality during transport, providing a wide range of information to consumers during use and facilitating ease of use. We are aiming to maintain these high standards for our packaging while promoting environmentally conscious packaging at the same time.

Kao's creating value to address social issues

Social issues we are aware of

According to the results of a survey on the use and disposal of package waste materials by the Ministry of the Environment in FY 2017, packaging waste accounts for approximately 56.6% of household waste in Japan. Thus for consumers, packaging and waste issues are closely connected. In areas with inadequate waste processing facilities, used packaging, especially which made from plastics cannot be processed properly. This is a major social problem that encompasses many issues.

In addition, improper disposal results in several million tons of plastic trash entering oceans every year. Estimates are that by 2050 there will be more plastic in the ocean environment, by weight, than the weight of all the fish that live there.

To keep temperature rise due to global warming under 2°C, consumption of fossil fuels must be drastically reduced. Consequently, production of plastics, which derive from fossil fuels, may fall dramatically compared to current levels. It is obvious from this that existing plastic containers are not sustainable.

Kao's creating value

On a per unit of sales basis, we have succeeded in reducing consumption of plastic packaging, but because we sold more products, overall consumption is increasing. We are humbled by this and will renew our efforts to further reduce our consumption of plastics.

This means making investments to develop new technologies, and in collaboration with various stakeholders, creating a system that will facilitate packaging disposal by consumers.

With the help of technology, we are determined to develop packaging that will contribute to enriching people's lives without being detrimental to the natural environment.

Risks related to realization of our vision by 2030

Item	Content
Policies, legal restrictions	Increased regulation on consumption of plastic packaging (mandatory use of recycled plastic, taxation), mandatory labeling of information on plastic use, etc.
Technology	Unsuccessful attempts to develop technology for reducing plastic consumption or using recycled plastic.
Markets	Changes in consumer preferences, rising costs for virgin plastic or recycled plastic, etc.
Reputation	Criticism of the industry or of individual companies, stronger concerns among stakeholders, changes in consumer preferences, etc.

Opportunities related to realization of our vision by 2030

Item	Content
Resource efficiency	Lower costs for packaging, better transportation efficiency, lower recycling costs, etc. occasioned by reducing plastic consumption.
Products, services	Higher sales due to expanded use of containers using less plastic and development of innovative packaging, income increase due to licensing of development technology.
Markets	Higher sales due to improved access to new markets, use of public incentives for developing innovative technologies, etc.
Resilience	Improved resilience through actively continuing to promote 3R activities for plastic packaging.

Contributions to the SDGs



Policies

We announced Our Philosophy & Action on Plastic Packaging in October 2018.
We continue our activities in accordance with this philosophy.

Excerpt from Our Philosophy & Action on Plastic Packaging

We strive to lead the way and create innovative solutions that make life beautiful for our consumers without detracting from the vitality of nature.

Our Beliefs

We believe that the plastic we do use should be made within limits our one planet can safely handle.

We believe plastic should never enter nature, but that every piece should either be reused or recycled.

We believe that the plastic that has already entered nature should be recovered and renewed.

Our Actions

Our action on plastic packaging is driven by our 4R programme based on continuous improvement and bold innovation.

Reduce

Reducing the amount of plastic used by making our packaging thinner and lighter, and reducing product volumes through concentration.



Replace

Replacing virgin fossil-fuel-based plastics with lower impact alternatives, wherever possible from recycled sources.



Reuse

Innovating new packaging formats, such as refill pouches, that help our consumers reuse their original packaging many times.



Recycle

Increasing the percentage of our plastic packaging by weight that is made from recycled resins, and the amount that is practically recyclable by consumers.

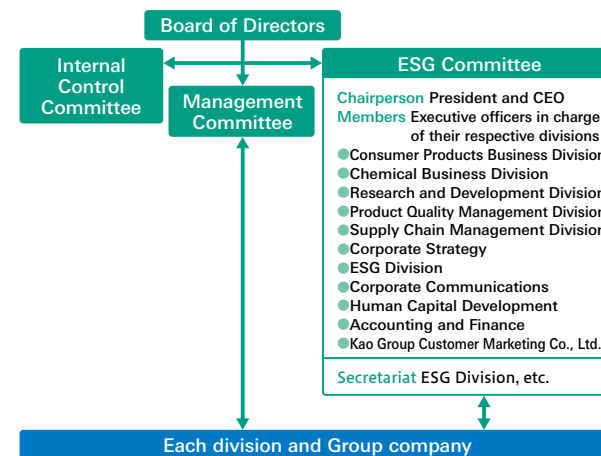


→ Our Philosophy & Action on Plastic Packaging
www.kao.com/global/en/sustainability/environment/statement-policy/eco-friendly-products/plastic-packaging/

Framework

Opportunity management related to plastic packaging is carried out by the ESG committee. Committee members are the persons in charge of the business, sales, R&D, SCM and other divisions, an arrangement which connects divisions horizontally. The ESG committee meets four or more times a year to discuss plastic packaging as well as environmental, 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.

Packaging Management System



* As of December 2018.

Education and promotion

To promote activities and understanding internally, Packaging Development Research holds packaging review meetings when new and improved products are launched. Members from the relevant divisions, including business units, the SCM Division and the Consumer Communication Center, evaluate the environmental performance of the packaging. In 2018, we held packaging review meetings 68 times in Japan, and 7 times elsewhere in Asia.



A packaging review meeting.

Collaboration with stakeholders

“eco together” with consumers

Kao introduces its initiatives in packaging at EcoPro exhibition, at the Kao Eco-Lab Museum and elsewhere, to help consumers opt to use more product refills and replacements, in order to greatly reduce plastic consumption.

“eco together” with business partners

Recognizing that it is essential to collaborate with manufacturers producing materials, recycled resins and packaging when developing and launching new packaging, we work together with a wide range of business partners.

“eco together” with society

We proactively participate in activities organized by the central and local governments, where we provide information about Kao technologies and exchange opinions with other participants. We participated in the 2018 Containers and Packaging Diet Campaign sponsored by a group of nine prefectures and cities in Japan for the ninth year running, ever since the program began. This campaign addresses consumers to promote reducing the amount of packaging waste discharged by households.

To build a more solid recycling flow of used plastic packaging, we promote the use of recycled resins and work to devise new recycling systems.

Together with outside organizations, we are involved in recovering packaging, etc. discharged into the natural environment. We also independently conduct clean-up activities for river and ocean waste and in the community. In 2018, 7,765 persons participated in these clean-up activities.



EcoPro exhibition



River clean-up (cleaning the Suiken River in Wakayama Prefecture)



Cleaning up around a worksite

Mid- to long-term targets and performance

Mid-term targets

2030 mid-term target

- Promote widespread adoption of innovative film packaging to achieve annual usage of 300 million units

2025 mid-term targets

- Develop film container packaging made from a single material
- Shift to 100% recyclable, reusable packaging
- Consumption of recycled plastics: x5
- Consumption of bio-based plastics: x3



Anticipated benefits from achieving mid- to long-term targets

Cost reductions or profit increase

By using innovative plastic packaging both internally and externally and meeting our targets for reducing plastic consumption, we can boost sales in new markets and earn revenue from licensing our patents. By increasing consumption of recycled and recyclable resins, we can also avoid new taxes on the use of virgin resin.

Impacts on society

Meeting these targets will contribute substantially to reducing the amount of new resources consumed and realizing a recycle-based society and make it possible to offer consumers clean products in a future society with limited resource availability.

Performance in 2018

Performance

In October 2018, we announced Our Philosophy & Action on Plastic Packaging, outlining our thoughts on plastic packaging.

At a November 2018 meeting to present technological innovations, we announced our Package RecyCreation program to completely eliminate plastic trash in the oceans, move to 100% use of recycled plastics, and aim to completely eliminate liquid residue from AFB (air-in film bottles).

New 4R activities undertaken in 2018 were as follows.

Reduce

- We redesigned the packing boxes used to transport Kanebo Cosmetics products and stop using the packing boxes for 27 skin care products in the line.
- We changed the composition of our large-format refill pouches for *Merit*, *Essential* and *Biore u*, replacing the aluminum foil lining with a shrink-wrap PET lining and reducing the layers from four to three. This helped reduce plastic consumption and CO₂ emissions by 7% and 25%, respectively.

- We changed the package dispenser for *Asience Urutsuya Shintou Care Oil* to a hinged cap, which reduced plastic consumption and CO₂ emissions by 8% and 6%, respectively.

Replace

- We are continuing our efforts to reduce plastic use. There were no new activities in this area in 2018.

Reuse

- We adopted a three-refill pouch for *CuCute CLEAR Foam Spray*, thus reducing plastic consumption by 66%.
- We began selling *Smart Holder* through major retailers.

Recycle

- We are continuing our recycling efforts. There were no new activities in this area in 2018.

Reviews of performance

We received positive comments from business partners and many other external stakeholders concerning the announcement of Our Philosophy & Action on Plastic Packaging. On the other hand, there were requests that we announce more specifics concerning future actions and goals at an early date.

Our RecyRecreation initiative was also lauded as innovative, and we have received suggestions for collaboration. We take these requests from society sincerely and will proactively engage in this activity.

We believe that the 4R activities we have engaged in have more or less run their course in Japan. Accordingly, we had comparatively little to report concerning the 4Rs in 2018. Since more action is demanded now with regard to plastic packaging mainly by European public, we will place more emphasis on 4R activities in Europe and other areas outside Japan in the future.

Our initiatives

Reduce: Reduce packaging materials

We are reducing our plastic consumption by making our packaging thinner and reducing product volumes through concentration. Reducing plastic consumption for packaging lowers environmental impact and reduces costs at the same time.

In addition to consuming less plastic related to packaging that reaches consumers, we are also continuing activities to reduce the amount of cardboard or packaging boxes used at the distribution stage.

We have received positive reviews for our approach of optimizing the height of refill pouches without changing the volume to improve loading efficiency for transport of products by truck. This has been characterized as an activity typical of Kao that is mindful of environmental impact throughout the lifecycle of our products.



Making refill packs shorter led to a 50% improvement in pallet loading efficiency.

Using heat shrink film more extensively, mainly for small size products, to move away from the use of blister packs is becoming the norm in Japan.



Packaging that uses shrink film which is becoming the norm in Japan.

In 2018, there were 45 cases of reducing costs for packaging materials, which also reduced environmental impact. In total, these cases reduced annual CO₂ emissions approximately 1,184 tons and saved approximately 170 million yen.

In 2018, working together with Norihiro Itsubo, Professor of Faculty of Environmental Studies, Tokyo City University, using the LIME2 method we conducted an environmental assessment of the use of refill packaging common in Japanese society. Results of the assessment indicated that societies that use refill packaging have a lower environmental impact than societies that recycle original plastic packaging.

Replace: Switching to renewable raw materials

Given the strong likelihood that use of petrochemical-based plastics will be limited in the future, we are actively developing technologies for using bio-based plastics for bottles and refills. Since we began this initiative in 2012, our consumption of bio-based plastics and the range of products for which they are used have continued to expand.



Products using packaging made from bio-polyethylene.

Reuse: Promoting refill and replacement products

Since we introduced our first refill product in 1991, the number of such products has continued to grow, and as of December 2018 the number of refill and replacement products reached 295 (figures from Kao). Thanks to the widespread use of plastic film refill packaging in Japan, our plastic consumption has dropped dramatically compared to plastic bottles (79%, in the case of shampoo), and we are continuing to expand use of plastic film refills, mainly in Asia.

We have also continued to make improvements to these refill products according to bottle size, the viscosity of the contents and so on to make refilling easier for the consumer.

Since 1997, the ratio of refill products to unit sales has rapidly increased, and is currently at more than 80% (based on the number of units). For example, the refill ratio for fabric softener and fabric bleach now stands at more than 90%. Consumption of plastic for refills and replacements has dropped by 59,500 tons, totaling 93,100 tons when making products more compact is accounted for, compared to if products had been in original plastic packaging. (Figures for 2018 from Kao Corp.)

Our Raku-raku Eco Pack Refill can now be used with our *Smart Holder*, improving usability and allowing the product to be completely consumed, thus reducing environmental impact. This eliminates the need for an original plastic bottle, and consumers can choose the *Smart Holder* label design they prefer to suit their personal preferences.

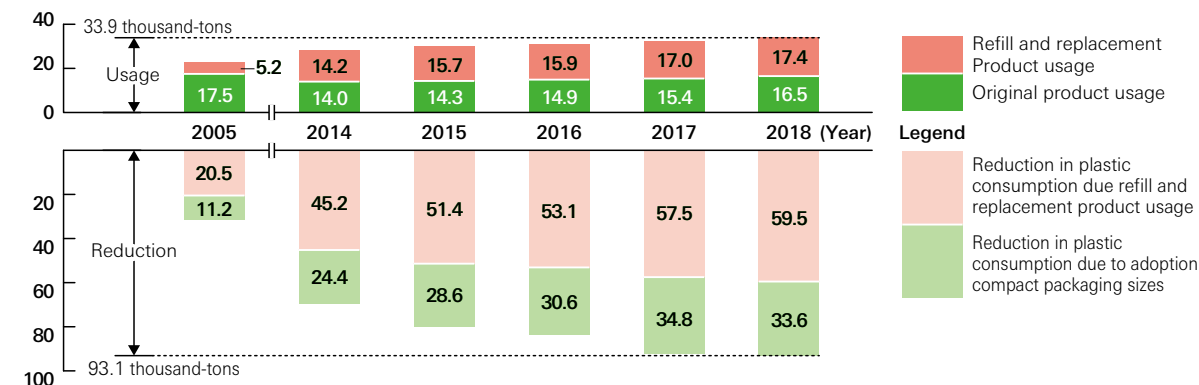
For this technology we were awarded the Minister of Economy, Trade and Industry Prize, the grand prize at the 57th Japan Packaging Competition, and a Good Design Award, all in 2018.

We plan various events to promote use of the *Smart Holder* and raise environmental awareness. At the Kankyo Hiroba Sapporo 2018 environmental event, visitors had the opportunity to create their own one-of-a-kind *Smart Holder*, an event organized by Kao Group Customer Marketing.



The Kao booth at Kankyo Hiroba Sapporo 2018.

Volume of packaging materials used



* Boundary: Kao Corporation.

* Body wash, hand soap, shampoo & rinse, liquid laundry detergent, fabric softener, kitchen cleaner, household cleaner, bleach, mold remover.

Recycle: Introducing recycled materials

We actively introduce and use recycled materials such as recycled paper and recycled plastics. We have been using recycled paper for the carton boxes and instructional inserts for many products, including powdered laundry detergent, since the 1960s.



In Taiwan, we have been using 100% recycled plastics for *Kao Shampoo* and *Kao Body Wash* since 2016.



Packaging for *Quikle Wiper Wet Sheets* uses 80% recycled plastics

RecyCreation activities

We have been engaged in research toward creating a new resource recycling system for packaging. Since 2015 we have proposed the RecyCreation approach, which involves investigating the potential and value of recycling together with members of the community. In a demonstration experiment, we collected used detergent, shampoo, etc. film refill packs and transformed them into recycled plastics in collaboration with business partners. We are continuing activities that will contribute to building

new community ties and new lifestyle.

We created a block out of recycled plastics that symbolizes “creation” of various objects and values.

This is our RecyCreation activity, applying technology, knowledge and ideas to create new things out of used objects.



→ RecyCreation on Facebook
www.facebook.com/RecyCreation.jp/

The RecyCreation Concept



Kamakura RecyCreation project

Introducing packaging technologies and exchanging views

We have presented our packaging technologies and exchanged views at the following events in 2018.

- Japan's Ministry of the Environment and the Finnish Innovation Fund (Sitra) jointly held the World Circular Economy Forum 2018, where we described our activities to reduce plastic consumption in our packaging and presented our RecyCreation activity.



World Circular Economy Forum 2018

- We provided examples of our initiatives for the Ministry of the Environment's “Plastics Smart” program.



→ Plastics Smart
plastics-smart.env.go.jp/en/

- In the Japanese government's process of formulating its plastic resources recycling strategy, our activities to reduce overall plastic consumption through our plastic film packaging were mentioned, describing the technology, etc. involved, which will contribute to meeting the strategy's targets for reducing plastic consumption.
- We provided examples of our plastics-related initiatives for contributing to the SDGs which was compiled by Keidanren (the Japan Business Federation).

Kao's approach

We are working to reduce the waste generated at our plants and offices, increase recycling and reduce the amount of waste requiring landfill. We are also striving to reduce the amount of product packaging, diapers and other waste thrown away after consumers use our products. To verify that the waste generated at our plants and offices is properly disposed of, we visit waste treatment service providers and conduct site audits.

Kao's creating value to address social issues

Social issues we are aware of

Because of limited earth resources, increasing population and increased living standards around the world, life will eventually no longer be viable with traditional one-way economic models. Therefore, with the goal of achieving high resource efficiency, the movement to build recycle-based societies all over the world is quickly gaining momentum.

In areas where the social infrastructure for waste treatment systems is not sufficiently developed for the increase in the amount of waste generated, there are cases of waste causing damage to human health and environmental pollution due to being dumped or insufficiently treated at disposal facilities. In addition, the inappropriate disposal habits of consumers after consumption cause increases in marine plastic waste, adversely affecting marine and coastal ecosystems.

Kao's creating value

We are involved in many activities including activities for increasing resource productivity and activities collaborated with society.

Activities that reduce waste generated from factory plants and offices, that reduce the amount of raw materials used in products, and that promote

recycling are successful for improving resource productivity.

Furthermore, efforts to recover waste that has already leaked into the environment as well as curbing waste that may leak into the environment in the future are also activities that greatly contribute to the protection of marine and land ecosystems.

Risks related to realization of our vision by 2030

In order to increase resource efficiency beyond the level necessary for society, we must work toward the development of high-level technology. Failure to carry out these activities will lead to a decline in our reputation, resource depletion and waste increase, which will make it difficult to continue operations.

Moreover, if products continue to be consumed in areas where social infrastructures of waste disposal systems are insufficient, the cleanliness and sanitation of these areas may be impacted.

Opportunities related to realizing of our vision by 2030

By increasing resource efficiency at Kao plants, we can reduce the amount of resources needed, and our viability will improve even under future resource constraints.

Providing products with low resource consumption makes it possible to contribute to consumer cleanliness and sanitation in areas where social infrastructure is already limited, and in a society where future resource constraints will become severe.

Actively recovering waste that has already leaked into the natural environment at the corporate level also helps improve the resilience of the environment.

Contributions to the SDGs



Policies

Reducing waste from business activities

We are reducing the amount of waste generated at our plants and offices, and we are reusing and recycling waste and other materials inside and outside the company. We have set reduction targets for how much waste we generate and are working company-wide to achieve them.

In our plants, we are reducing loss of raw materials and product. For example, for liquid products, wastewater sludge is produced from cleaning the mixing and storage tanks at the production facility when the product produced is switched. For sheet-type products, a portion of the sheet material is left unused when the material is switched out. We study ways to reduce loss on an ongoing basis, according to the type of loss that occurs. We then implement improvements to reduce waste.

We ensure that generated waste is thoroughly separated so that it can be recycled, and, in cooperation with contracted waste treatment providers, we select the most appropriate recycling method. We monitor the amount of waste recycled and sent for final disposal along with the amount of waste generated to improve how waste is treated overall.

Reducing the volume of packaging

To reduce the amount of packaging used, we are reducing the amount of plastics used in packaging and making packaging more compact, for example by making contents more concentrated, and offering refill products. These activities are in accordance with the ISO 18600 series standards for packaging and the environment.



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Reducing the amount of product materials used

We offer products such as diapers and cleaning sheets that become waste after consumer use. While ensuring product performance, we develop technologies to reduce the amount of materials used and contribute to reducing waste.

Preventing illegal dumping of waste

When contracting waste treatment service providers to dispose of waste generated at our plants and offices, there is a risk of illegal dumping. To reduce this risk, we regularly visit the service providers to verify that the contracted waste is being disposed appropriately. The Kao Group in Japan has created a database containing information including the contracts with waste treatment service providers and the results obtained in surveys of appropriate waste treatment to verify prevention of illegal dumping. This system is also connected to the Electronic Manifest System for preventing illegal dumping, which together ensure prevention of illegal dumping.

Proper storage and treatment of PCB waste

Polychlorinated biphenyls (PCBs) were formerly used in insulating oil, such as in transformers and ballasts, but they have low degradability and therefore pose a risk to human health and to creating hazards in living environments. We appropriately store and treat PCB-containing waste according to the Waste Management and Public Cleansing Law and the Act

on Special Measures concerning Promotion of Proper Treatment of PCB Wastes, until its disposal is contracted to a service provider.

Promoting domestic recycling

With the goal of creating a society that recycles domestic resources, we choose waste disposal companies on the principles of recycling and final waste disposal discharged in each country.

Framework

Activities related to waste issues are managed under our Responsible Care (RC) promotion system. The performances of these activities are reported to the annual RC Promotion Committee, Japan RC Meeting and the Global RC Meeting, while important details are reported to the Internal Control Committee chaired by the president. The SCM Division, which manages our plants that account for the majority of waste generated by our plants and office, holds the Environment Working Group Meeting with environmental staff at all plants, manages progress relating to activity targets regarding recycling and reducing waste at plants, and internally develops Best Practices.

Site inspections of waste treatment service providers are conducted systematically in cooperation with the SCM Division, Procurement Division, Logistics Division, Information Technology Division, Sales Division and related companies.

Data reliability is ensured by using a database that centrally manages environmental data, and work tasks are standardized and made more efficient to adequately conduct activities with targeted outcomes.

Mid- to long-term targets and performance

2020 mid-term target

In 2013, we set the 2020 reduction targets for waste and other unwanted materials generated at all Kao Group sites and have aimed to achieve a standard reduction of 0.5% each year. The target percentage of final disposal at all Kao Group sites in Japan has been increased in phases. We began with the target of 0.5% or lower in 2004, then 0.2% or lower in 2007 and 0.1% or lower since 2010.

Waste-related targets

Index	Scope	2018 targets	2019 targets	2020 targets
Generated waste and other unwanted materials* ¹	All Kao Group sites	32% reduction	33% reduction	33% reduction
Final disposal ratio* ²	All Kao Group sites in Japan	0.1% or lower	0.1% or lower	0.1% or lower

*1 Per unit of sales (2005 baseline).

*2 Ratio destined for final landfill disposal to the amount of generated waste.

Anticipated benefits from achieving mid- to long-term targets

Cost reductions or profit increase

Waste reduction can be achieved by improving productivity, which directly leads to a reduction in manufacturing costs. This also contributes to reductions in waste disposal costs.

Impacts on society

Activities that improve resource productivity by reducing the amount of waste generated, promoting recycling to reduce landfill disposal rates, and reducing the amount of resources used in products are important approaches for contributing to the promotion of a recycle-based society and realizing the One Planet Living vision for environmental sustainability.

Kao's approach

Performance in 2018

1. Amount of generated waste and other unwanted materials

Due to reduction efforts at each of our worksites in 2018, the amount of generated waste and other unwanted materials decreased by 3 thousand tons compared to the previous year, with the reduction rate (per unit of sales) improving another 1% from the previous year to 26%, but underreached our target of a 32% reduction. We will continue to strengthen our activities to reduce generated waste and other unwanted materials.

Of the generated waste, 22 thousand tons were hazardous waste. No hazardous waste was transported internationally under the Basel Convention.

2. Recycling

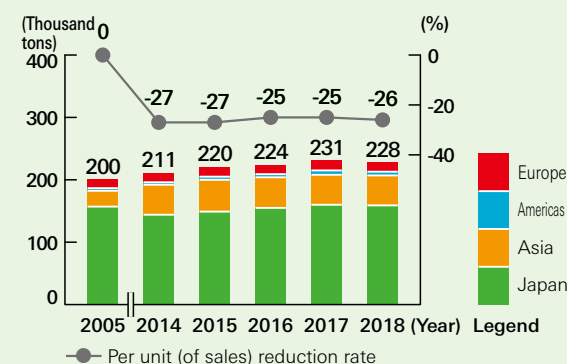
Waste reused or recycled* came to 211 thousand tons ☒, a recycling rate of 93%.

We maintained our target of a 0.1% or lower final disposal ratio for waste. We have achieved our target of zero emissions for the 14th consecutive year since the target was set (final disposal ratio to generated waste for all Kao Group worksites in Japan).

* Includes thermal recycling (heat recovery).

In 2018, while we saw an improving trend in the amount of generated waste, reducing the gap with our 2020 target is a challenge and we will continue conducting activities to reduce waste.

Amount of generated waste and other unwanted materials ☒ (all sites)



* Boundary: Through 2014, all Kao Group production sites, as well as non-production sites in Japan. From 2015 onwards, also includes some non-production sites outside Japan.

* Assurance provided for amount of generated waste and other unwanted materials.

* Per unit of sales is calculated based on Japanese standards up to fiscal 2015, and on International Financial Reporting Standards (IFRS) from fiscal 2016.

3. Inspection of waste treatment facilities

In 2018, we conducted inspections of 225 waste treatment sites with the cooperation of 175 waste treatment companies (Japan). As a result, no waste treatment companies were found to be in noncompliance with our evaluation standards.

4. Proper storage and treatment of PCBs

In 2018, we treated 1,126 waste items containing high levels of PCBs and 73 waste items containing low levels of PCBs. We are currently storing PCBs at Wakayama, Kawasaki, Sumida, Kashima, Odawara and KCMK Kumamoto (Japan).

Collaboration with stakeholders

Introducing cases at seminars and lectures on waste

In Japan, there have been reported that many incidents occur at waste treatment companies, which are caused by not providing sufficient information on the chemical substances to the contractor when contracting the waste treatment.

Therefore, we present cases at various seminars regarding waste with the aims of spreading our knowledge about past successful cases of improving communication with waste treatment companies, and identifying points of improvement in how we communicate information.

Thanks to these activities, there were again no incidents involving waste contracted for disposal from us in 2018.

Our initiatives

Efforts in raw materials procurement

To reduce waste generated at our plants, we are adjusting the volume and frequency of raw materials deliveries from external suppliers. This contributes to reducing the amount of packaging materials we procure from our suppliers.

We use recycled materials for some of our products. We have been using recycled paper in the carton boxes and instructional inserts of many products since the 1960s, including powder-type clothing detergents. We use recycled polypropylene (PP) resin in the measuring spoon for *Attack* powder-type laundry detergent, which was first put on the market in 1987, and recycled polyethylene terephthalate (PET) in the fibers of *Quickle Wiper* floor dry cleaning sheets, which first appeared on the market in 1994. Additionally, we use recycled polyethylene terephthalate (PET) resin in *Quickle Wiper* and *Quickle Wiper* floor cleaning sheet packaging, as well as in *Kao Shampoo* containers and other containers sold in Taiwan.



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Efforts in development, manufacturing and sales

Reducing the amount of waste produced

We handle a large number of liquid products, and reducing the sludge produced from treating concentrated wastewater generated in the process of cleaning tanks and switching products is a major issue.

Kao Industrial (Thailand) treats wastewater using separate wastewater treatment facilities according to the COD concentration of the wastewater, which has successfully reduced the amount of sludge produced and contributes to reducing waste. Fatty Chemical (Malaysia) is also considering introducing equipment to treat wastewater.

To contribute to reducing the volume of generated waste at retailers, we are working with the understanding and cooperation of retailers to reduce the amount of boxes used in the delivery of products.

Enhancing waste recycling

One example of this is recycling the waste generated by the manufacture of diaper and feminine products to be turned into plastic pallets. We began test operation of this system at our plants in 2016, with cooperation from research laboratories and related divisions using the strengths of our matrix management. By 2018, we were able to recycle 413 tons of waste into approximately 26,500 plastic pallets.

Recycling cafeteria waste

Our Toyohashi plant encourages the recycling of cafeteria waste. In 2018, we signed a new contract with a company that purchases cooking oil waste generated by our cafeterias and recycles it into diesel fuel.

Efforts during use

Efforts in the Consumer Products Business

We continue to reduce the raw materials used in making products and in packaging that becomes waste after product use by consumers.

For example, as part of our efforts to reduce the amount of materials used in our products, we were able to reduce the product weight of *Merries* medium-sized disposable taped diapers by 37% while improving product function compared to its 1990 version, which received a 2018 Good Design Award.

Our main mission is to reduce the use of plastic containers and packaging by promoting refillable and replacement products.



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Efforts in the Chemical Business

This reduces the volume of raw materials used to one-tenth and post-use waste to one-sixteenth of comparable products.

In recognition of contributions to chemicals that are gentle to people and the environment and support the development of a sustainable society, we received the Minister of Economy, Trade and Industry Award in the 16th Green Sustainable Chemistry (GSC) Awards.

Take back system creation

The Chemical Business Division is conducting a program to reuse sold product packaging (take back system) to reduce their environmental impact.

In 2018, we collected and reused 18,524 one-ton packaging (IBC packaging) used by customer companies.

Product lifecycle and environmental impact

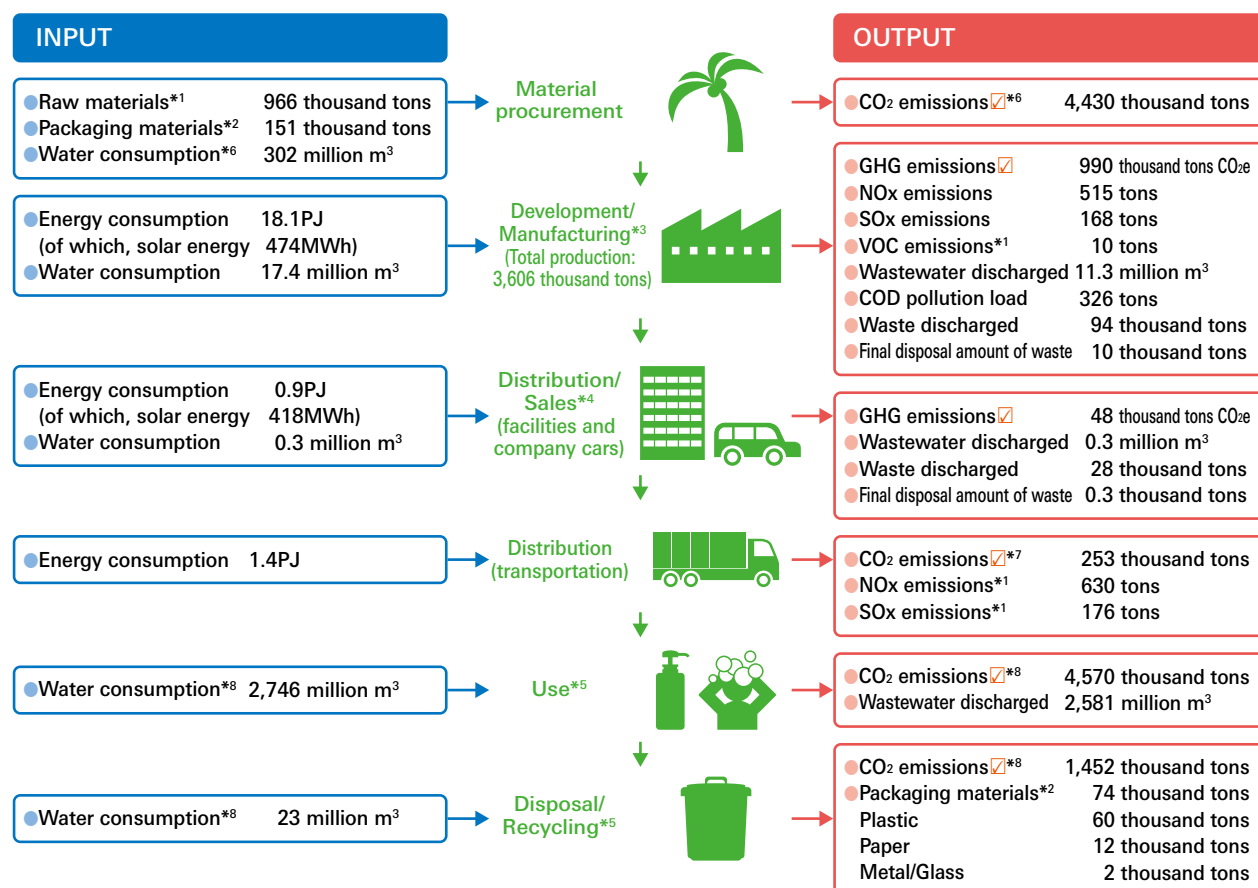
301-1, 302-1, 303-3 (Water and effluents 2018), 303-4 (Water and effluents 2018), 303-5 (Water and effluents 2018), 305-1, 305-2, 305-3, 305-7, 306-2

Kao's approach

Kao's approach

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

2018 business operations and environmental impact



Boundary of calculations

- *1 Kao Group in Japan.
- *2 Kao Corporation.
- *3 All production sites.
- *4 All non-production sites (including training facilities, company dormitories, etc.).
- *5 Consumer products.
- *6 Calculated by multiplying the per unit CO₂ emissions and water usage in the raw materials production stage (excluding Kao Group manufacturing processes) by the annual sales number of consumer and industrial products in 2018.
- *7 Consumer products and industrial products. Figures for Japan are calculated based on the Energy Conservation Act. Figures for outside Japan are calculated multiplying the per unit CO₂ emissions during transport (calculated based on figures for Japan) by the quantity sold in each country and the estimated domestic transport distance in each country.
- *8 Calculated by multiplying the per unit CO₂ emissions and water usage during use or per unit CO₂ emissions and water usage during disposal by the annual sales number of consumer products in 2018.

INPUT

●Raw materials

The amount of raw materials directly used to manufacture products (excluding packaging materials and fuel).

●Packaging materials

The amount of packaging used for products sold (including corrugated box).

●Energy consumption [product development/manufacturing]

Total amount of energy consumed at manufacturing sites.

●Energy consumption [distribution/sales (facilities and company cars)]

The amount of energy consumed at non-production sites and by vehicles (used for sales activities).

●Energy consumption [transportation]

The amount of energy consumed during transportation of consumer products (from plants to distribution bases), industrial products, raw materials, etc.

●Water consumption

Industrial water, municipal water, underground water, rainwater consumed.

OUTPUT

●GHG emissions

Total amount of greenhouse gas emissions from sites (seven GHGs defined in the Kyoto Protocol) (in CO₂ equivalent, Scope 1+2).

●CO₂ emissions

The amount of CO₂ emitted from manufacturing raw materials, consuming energy and decomposition of ingredients.

●Wastewater discharged

The amount of wastewater discharged at production sites and consumer product use stages.

●COD pollution load

The amount of COD pollution load in wastewater.

●Waste discharged and final disposal amount of waste

Of the waste generated from sites, the amount that is sold or entrusted as waste or recyclable materials to waste treatment companies, and the amount of waste to landfill.

●Packaging materials

Total amount of packaging materials (excluding corrugated box) used for products sold.

●VOC emissions

Total amount of VOCs (volatile organic compounds) emitted into the atmosphere from production sites.

●NO_x emissions

Total amount of NO_x emissions from smoke-and-soot-emitting facilities and transportation.

●SO_x emissions

Total amount of SO_x emissions from smoke-and-soot-emitting facilities and transportation.

Kao's approach

To efficiently and effectively promote its environmental activities, Kao quantifies the costs and results of those activities in numerical terms.

2018 environmental accounting report

- 1 The aggregation methods we use comply with the Japanese Ministry of the Environment's Environmental Accounting Guidelines 2005. We also reference the Environmental Accounting Guidelines for Chemical Companies (November 2003) issued by the Japan Chemical Industry Association.
- 2 Boundary: the domestic Kao Group*¹ and major overseas subsidiaries*².
- 3 Concerns the period from January 1, 2018 to December 31, 2018.



Please see below for environmental conservation results (numerical results).
→ p. 92 Conservation > Product lifecycle and environmental impact

*1 Kao Corporation, Kao-Quaker Company, Limited., Kao Group Customer Marketing Co., Ltd., Kao Sanitary Products Ehime Co., Ltd., Kanebo Cosmetics Inc., Kanebo Cosmetics Sales Inc., e'quipe, Ltd., Kao Professional Services Co., Ltd., Goldwell Japan Co., Ltd., Molton Brown Japan Ltd., Kao Paper Manufacturing Fuji, Kao Business Associe Co., Ltd., Kao Logistics Co., Ltd., Kao System Logistics Co., Ltd., Kao Field Marketing Co., Ltd., Kao Creative House Corporation, Shohi Seikatsu Kenkyusho Inc., Kao Peony Co., Ltd., Healthcare Committee Inc., and Kao Cosmetic Products Odawara Co., Ltd.

*2 Kao Chemical Corporation Shanghai, Kao (Taiwan) Corporation, Kao Vietnam Co., Ltd., Pilipinas Kao, Incorporated, Kao Industrial (Thailand) Co., Ltd., Kao Soap (Malaysia) Sdn. Bhd., Fatty Chemical (Malaysia) Sdn. Bhd., Kao Plasticizer (Malaysia) Sdn. Bhd., Kao Oleochemical (Malaysia) Sdn. Bhd., PT. Kao Indonesia Chemicals, Kao Specialties Americas LLC, Quimi-Kao, S.A. de C.V., Kao Corporation S.A., Kao (Hefei) Co., Ltd., Kao Chemicals GmbH, PT Kao Indonesia, Kao Manufacturing Germany GmbH, Kao (Shanghai) Chemical Industries Co., Ltd., Kao USA Inc., Molton Brown Limited, Kao Corporation Shanghai, Huludao Jinxing Casting Materials Co., Ltd.

Environmental conservation costs (categories corresponding to business activities)

(Unit: millions of yen)

Categories		Inside Japan		Asia, Americas and Europe	
		Investment	Cost* ¹	Investment	Cost* ¹
(1) Business area costs		2,169	3,632	1,254	3,625
Breakdown	①Pollution prevention	Air pollution prevention, water contamination prevention		628	1,464
	②Global environmental conservation	Energy conservation		879	1,491
	③Resource circulation	Resource conservation, waste processing and disposal		506	365
(2) Upstream/downstream costs		Plant and equipment for eco-conscious products, packaging recycling		248	753
(3) Administration costs		Acquisition and maintenance of EMS certification, environmental publicity, tree planting within worksites		1,035	1,803
(4) R&D costs		Eco-conscious R&D		127	1,381
(5) Social activity costs		Nature and environmental conservation and tree-planting activities outside worksites, donations		337	2,619
(6) Environmental remediation costs				0	83
Total		4,913	12,855	1,300	4,044

Environmental conservation costs (categories corresponding to areas of environmental conservation measures)

(Unit: millions of yen)

Categories		Inside Japan		Asia, Americas and Europe	
		Investment	Cost* ¹	Investment	Cost* ¹
①Cost related to global warming measures		Energy conservation		506	365
②Cost related to ozone layer protection measures		Switch to CFC alternatives		214	387
③Cost related to air quality conservation measures		Air pollution prevention, dust pollution prevention, malodor prevention		0	0
④Cost related to noise and vibration measures		Noise prevention		34	346
⑤Cost related to environmental conservation measures for aquatic, ground, and geologic environments		Water contamination prevention		15	439
⑥Cost related to waste and recycling measures		Resource conservation, industrial waste volume reductions, recycling		473	467
⑦Cost related to measures to reduce chemical risks and emissions		R&D on products and production		0	2
⑧Cost related to nature and environmental conservation		Nature and environmental conservation and tree-planting activities outside worksites, donations		16	52
⑨Other costs		Acquisition and maintenance of EMS certification, environmental publicity, tree-planting activities within worksites		613	1,023
Total		4,913	12,855	390	960

Economic effect associated with environmental conservation activities*²

(Unit: millions of yen)

Details of benefits		Inside Japan	Asia, Americas and Europe
		Amount	Amount
Revenue	Sales value of valuable resources and fixed assets	455	214
	Reduction in costs through energy conservation	213	148
	Reduction in costs through resource conservation	1,460	866
	Reduction in operation costs (maintenance costs, etc. of eco-conscious equipment)	266	443
Total		2,394	1,671

*1 Cost includes depreciation costs.

*2 For economic effect, only amounts from selling valuable resources and fixed assets and the amount of cost reductions are recorded. Economic effects based on assumption such as risk mitigation, so-called "deemed effects" are not recorded.

*3 The amounts of cost reductions contains only the relevant fiscal year of the annual cost reduction for items generated during that year. Cost reduction amounts generated over multiple years are not included.

2018 Our initiatives

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Kirei Lifestyle Plan

Conservation

Community

Corporate Culture

Governance

| Contents | Editorial Policy | Independent assurance report | GRI Standards | ISO 26000 | TCFD Index | Indexes for survey |

Kao's approach

As stated in the mission of Kao Group, we implement wholehearted *Yoki-Monozukuri* from a consumer- and customer-driven perspective for the satisfaction and enrichment of the lives of people globally. In addition, we are striving to achieve high level of product safety for human and environment, and pursuit continuous improvement in product quality at all stages of R&D, production, distribution and sales, while maintaining steadfastly a consumer- and customer-driven perspective in order to contribute to the sustainability of society.

Kao's creating value to address social issues

Social issues we are aware of

Through wholehearted *Yoki-Monozukuri*, we are implementing initiatives to solve social issues, such as the environment, health, aging, hygiene.

Kao's creating value

We aim to ensure high levels of safety and quality by identifying risks throughout the product lifecycle from a consumer-focused perspective.

Besides providing information to help consumers use our products correctly and safely, we are also promoting Universal Design to help all consumers, including senior citizens, enjoy a stress-free lifestyle.

By means of thorough management of raw materials, production processes and products, we aim to always provide safe, high-quality products.

The valuable customer feedback that we receive through customer consultation is shared throughout the company, and we make effective use of this information to realize improvements in products and labeling, etc.

We also promote visualization of product quality management activities and communication of those activities with all stakeholders. Moreover, we facilitate changes for solving social issues through *Yoki-Monozukuri* based on trust and cooperation.

Policies

The foundation of our quality management activities is our wholehearted commitment to consumer- and customer-driven *Yoki-Monozukuri* as expressed in the group mission, the Kao Way. We have implemented consumer- and customer-driven quality management activities with the participation of all employees, in all phases from raw material procurement to R&D, production, distribution and sales.

Basic Policy for Quality Management Activities

- Consumers/customers decide on the quality of the products
- Providing products that users want to continue using
- Ensuring safe usage for consumers/customers
- Legal compliance
- Transparency and accountability

Collaboration with stakeholders

Making good use of customer feedback in *Yoki-Monozukuri*

We use customer feedback to improve our products, information and services by promptly sharing this feedback through the Kao ECHO System.



→ p. 110 Community > Communication with consumers / Framework

Actively engaged in industry initiatives

We actively participate in industry association around the world, and we work in international efforts on harmonization with national standards of product quality and safety, setting new standards and test methods, and management of chemical substances. By doing so, we strive to provide reliable products to customers around the world.

Framework

At our group, we have established a company-wide quality management system that involves all employees at all stages from product development to post sales, that is from R&D, marketing, production and distribution to sales in continuous improvement activities.

Before product launch, we adopt gate control to maintain the quality and to verify the evidence comprehensively at searching, development, commercialization and production stages, thus sufficiently ensuring our high safety and quality standards.

After product launch, we promote company-wide activities in pursuit of continuous product improvement and the sincere receipt of consumer and customer feedback. In these ways, we strive to be highly transparent with the public and to always fulfill our social responsibilities.

In these ways, we strive to achieve *Yoki-Monozukuri* every day. Nevertheless, the possibility of significant safety or quality related issues emerging is not negligible. For this reason, we have set up the Kao Group Critical Product Management System. The Kao Group companies both within and outside Japan respond to risk events based on this system.

Meanwhile, we also maintain a corporate governance system including internal control systems and we hold quarterly meetings of the Quality Management Committee, which is a sub-body of the Internal Control Committee with the President and CEO serving as a chairperson. At the Quality Management Committee, we confirm the efficacy and reliability of group-wide quality management

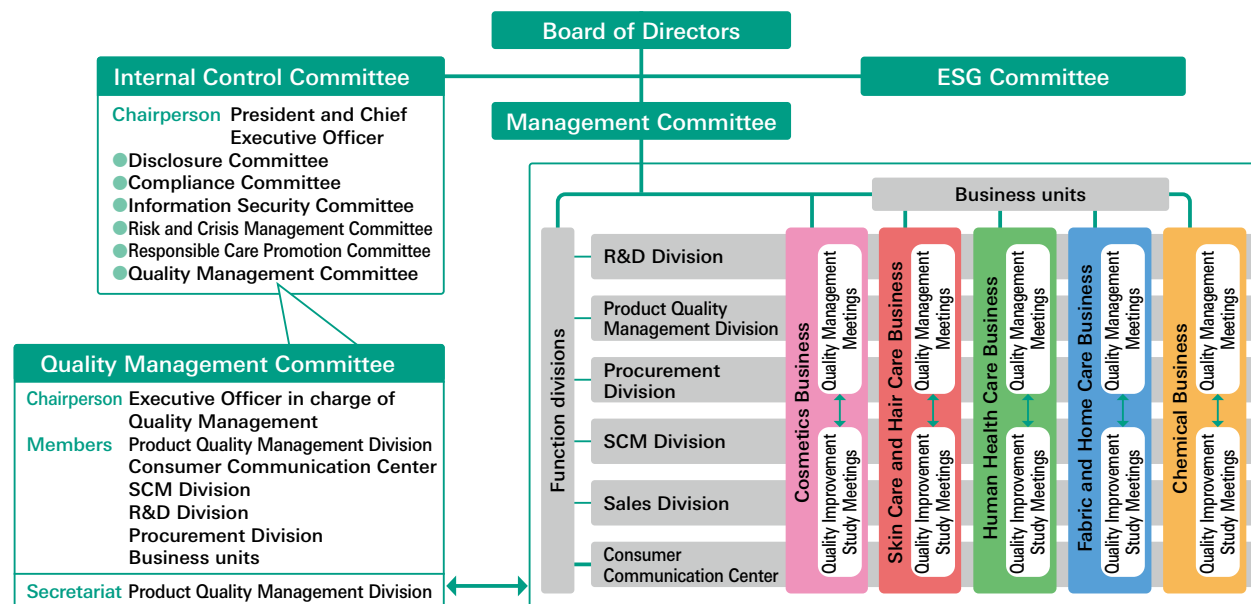
activities. Following the policies decided on by Quality Management Committee, we hold annual Quality Management Meetings at respective business field level and confirm the quality management activities policy, product quality issues and the progress of our quality management activities.

Furthermore, representatives of relevant divisions (business, manufacturing, R&D, consumer communications, product quality management, etc.) attend monthly Quality Improvement Study Meetings, held by the president of the business division, to improve products, information and services, based on

consumer feedback. We will expand these activities globally.

These group-wide activities are coordinated and promoted by the Product Quality Management Division. The Managing Executive Officer in charge of quality management supervises the Division's activities, submitting periodic reports on these activities at meetings of the Management Committee, and reporting on important issues as appropriate. The Managing Executive Officer in charge of quality management also participates in discussion regarding important management issues in general.

Product Quality Management System



* As of December 2018.

Education and promotion

We implement education—including training etc.—in relation to the Kao Way and the Kao Business Conduct Guidelines, which are fundamentals to quality management activities of the group, so as to ensure that our corporate philosophy permeates throughout the enterprise.

We provide various education and awareness-raising initiatives through day-to-day quality management activities and Quality Improvement Study Meetings to ensure permeation of our quality management activities policy, not only within Japan but also at the group companies outside Japan. In 2018, a total of 223 Quality Improvement Study Meetings were held (119 in Japan and 104 outside Japan). Besides implementing periodic quality education to intensify our company-wide quality management activities, we also conduct our unique QC circle activities at our manufacturing divisions, which use the number of consumer contacts as an index. In 2018, our QC circle activities addressed a total of 350 improvement issues (including 128 within Japan, and 222 outside Japan).

In addition, education relating to the Ministerial Ordinance on Standards for Quality Assurance for Drugs, Quasi-drugs, Cosmetics and Medical Devices was implemented approximately 50 times in 2018, and education relating to the Good Manufacturing Practice (GMP) and ISO standards was implemented 398 times. We present annual quality management awards for excellent activities to foster employees' motivation.

We have quality management meetings with contract manufacturers and raw materials suppliers as interconnected activities for consumer-driven quality improvement. We will cooperate with more business partners for developing consumer-driven quality management activities.

Mid- to long-term targets and results

Mid- to long-term targets

1. Strive for world-leading levels of product quality through our committed consumer- and customer-driven approach, applying our collective capabilities and making full use of the group's assets.
2. Fulfil our responsibility to consumers, customers and society as a whole and build trust through quality management activities that are underpinned by integrity.
3. Take a strategic approach to globalization and informationization, and establish a quality management system that can accommodate e-commerce and new business domains.

Risks related to realization of our mid- to long-term targets

- Changes in laws and regulations in each country, and growing requirements to contribute to the resolution of safety and environmental issues
- Increasing risk of product incidents due to the aging of the population and the growing number of non-Japanese visitors and residents in Japan
- Increasingly stringent requirements regarding transparency in relation to product ingredients and safety, etc.
- Weakening of quality management activities and reduced ability to respond to consumers' needs due to the diversification of the supply chain resulting from cross-border expansion of product distribution

Opportunities related to realization of our mid- to long-term targets

- Ensuring competitiveness by anticipating new requirements in relation to laws and regulations in

each country, safety and environmental issues and developing alternative technologies

- Enhancing product satisfaction by promoting Universal Design and providing multilingual information for non-Japanese visitors and residents in Japan
- Strengthening the trust that consumers, customers and society as a whole place in us by promoting visualization of product quality management activities and engaging in communication with all stakeholders
- Speeding up the globalization of our operations by intensifying quality management activities on a global, company-wide scale

Performance in 2018

Global promotion of quality management activities

In order to quickly and widely deliver our cosmetics and other products to customers around the world, we have developed information system that supports product development, for example in relation to regulatory checks in each country, etc.

Following on from the roll-out of this system in Asia in 2017, the new system was adopted in the Americas in May 2018 and in Europe in December 2018. Thus, the global system operation has now begun.

We are continuing to maintain and strengthen linkages between the group companies within and outside Japan, so as to enhance quality on a global level. In 2018, we worked to realize a further strengthening of linkages, for example through the launching of Japan-China collaborative Quality Improvement Study Meetings in relation to sanitary products such as *Merries* baby diapers.

Our initiatives

Company-wide consumer- and customer-driven quality management activities

Application of new safety icons

In 2017, we contributed to develop new safety icons (10 types) as a leader of Safety Labeling Working Group in the Japan Soap and Detergent Association (JSDA).

Starting from 2018, we have begun displaying these products safety icons on product packaging. We are proceeding with our efforts to provide appropriate, easy-to-understand warnings for consumers.



→ p. 105 Community > Universal Design > Promoting the adoption of new safety icons for consumer products

Declaration of Consumer-orientation



→ p. 112 Community > Communication with consumers / Evaluation of consumer-oriented initiatives

Verifying quality management activities through audits and self-checks

The group companies in Japan, Asia, the Americas and Europe maintain ISO 9001 and the GMP certification. Besides, we conduct external and internal audits, self-check for contract manufacturers and raw material suppliers, and hold quality meetings. As part of our efforts to strengthen our product quality management audit and self-check frameworks, we hold Quality Audit Promotion Meeting with participants that include not only Product Quality Management Division personnel, but also leaders from relevant divisions. These Meetings are used to help drive audit activities by deciding which areas auditing should focus on.

In 2018, we conducted internal audit with respect to quasi-drug products within Japan, and reported the results to the Internal Control Committee. In addition, the implementation status of external audits for group companies in Japan, Asia, the Americas and Europe during the previous year was reported to the Quality Management Committee.



→ Certification Status of ISO and Other Standards
www.kao.com/global/en/sustainability/environment/activity-data/certification/

Product recall over the last 3 years*

Year	2016	2017	2018
Cases	0	0	0

* Product recall from consumers and the market with the company's announcement

Safety management across the product lifecycle

At our group, we ensure a high level of product safety and quality so that our products can be used safely, securely and comfortably, through company-wide safety management following product launch in addition to each stage of R&D, through commercialization of products, manufacturing and sales, to the after-sales stage.

As to raw materials selection at the product development stage and product ingredients after product launch, we regularly collect information on legislation and safety within and outside Japan.

In addition, we earnestly listen to all consumer feedback following product launch, confirm the specifics, and implement precise safety checks and safety management in collaboration with a network that includes medical professionals and governmental authorities.

We exchange the information with the group supervisors in Europe, the Americas, Asia etc. on a regular basis to utilize the voice of consumers which received around the world, and facilitate improvements to our overall level of product safety from a global perspective.

Regarding our household products, cosmetics and food products, we set safety standards aiming to ensure a high level of safety. This is because consumer's safety is always the highest priority.

We established new product safety standard regarding our cosmetics in April 2014. Based on our

standards prior to that, we have developed a much wider range of databases, wider use of tests and more detailed safety inspections.



→ Kao Safety Standards for Household Products
www.kao.com/global/en/sustainability/safety-quality/kao-quality/houseware-quality/

→ Kao Safety Standards for Cosmetic Products
www.kao.com/global/en/sustainability/safety-quality/kao-quality/cosmetics-quality/

→ Kao Safety Standards for Food Products
www.kao.com/global/en/sustainability/safety-quality/kao-quality/food-quality/

Kao's policy on animal testing

Global society is taking steps towards the abolition of animal testing and the Kao Group supports such endeavor.

In our development of cosmetics, we do not and will not conduct animal testing nor do we outsource this task to anyone.*1

For products other than cosmetics, our policy is to not conduct animal testing unless it cannot be avoided due to lack of availability of alternative methods, regulatory requirements or other similar reasons.*2

Ensuring the safety of our products is our utmost priority and, in this regard, we have established and observe the Kao Group safety standards.

In accordance with such standards, Kao widely collects safety data, makes use of its safety information database that contains the knowledge accumulated over many years and adopts alternative methods to animal testing as much as possible. After ensuring product safety through the above, we conduct further testing of the product in actual usage settings.

We have been working on the development of alternative methods to animal testing since the late 1980s. We believe that alternative methods should be official test methods that can be used globally. In this regard, Kao is actively working with research institutions globally for the development of alternative methods to be adopted as international guidelines. We are also a member of the project to develop alternative methods to animal testing of Cosmetics Europe.

We will continue to proactively work on the development of alternative methods to animal testing in cooperation with industry associations, other companies and other related third parties globally.

*1 This excludes instances where we need to respond to societal expectations to evidence the safety of a product or when required to do so by government agencies in particular countries.

*2 If testing on animals is unavoidable, we keep such testing to a minimum following the principles of animal welfare of the 3Rs (Replacement, Reduction and Refinement).



→ Kao's Policy on Animal Testing
www.kao.com/global/en/sustainability/safety-quality/animal-testing-policy/

Kao's approach

The Kao Group's vision of "heartfelt *Yoki-Monozukuri* based on anticipation of changing times and changes in people's lifestyles, and on constant consumer engagement" has much in common with the Universal Design (UD) approach. While promoting the development of "user-friendly products" that are easy and safe to use for as many people as possible, we also aim to contribute to "social inclusion" through our products, fostering relationships between individuals and between individuals and society.

Kao's creating value to address social issues

Social issues we are aware of

With aging of the population and the ongoing trend toward "borderless" globalization, as well as the continuing diversification of values and lifestyles, we are entering an era in which it is becoming more and more difficult to enable everyone to live with safety and peace of mind. There is thus a real need for manufacturing products that pay more attention to diversity.

Kao's creating value

Through our *Yoki-Monozukuri*, in which we constantly put ourselves in the position of the consumer and customer, we take on a mission of striving for the wholehearted satisfaction and enrichment of the lives of people globally and to contribute to the sustainability of the world. Developing and providing products that anyone can use easily is the fundamental approach that underpins our consumer-focused *Yoki-Monozukuri*.

In providing all people with products that are easy to use, we recognize a need to respond to diversity.

Risks related to realization of our vision by 2030

Failure to provide products that anyone can use easily could lead to an enhanced risk of improper usage and safety issues. Failure to provide products that are acceptable to diverse groups of people could lead to a loss of trust in our products, and conceivably even to a loss of trust in the company itself.

Opportunities related to realization of our vision by 2030

Providing support to help enrich the lives of people all over the world as a truly global enterprise will increase the trust that people place in our company.

Contributions to the SDGs



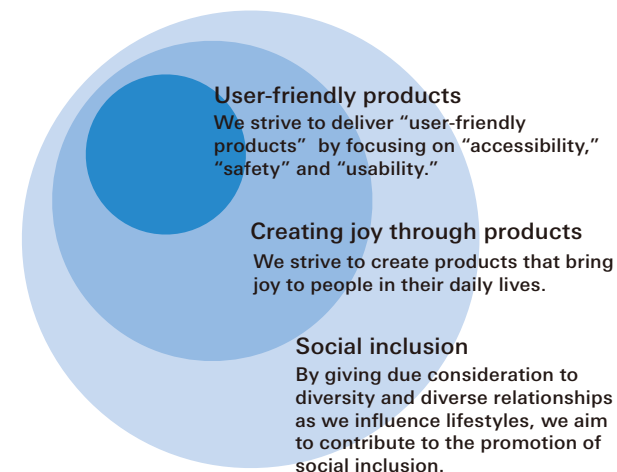
Policies

We at Kao strive to provide products and services imbued with consideration and care for users, in line with our Universal Design (UD) Guidelines approach: "user-friendly products," "creating joy through products," and "social inclusion." Our aim is for people of all age groups from infants to elderly people

to use our products in their daily lives, so that we can foster relationships between individuals and play a useful role in society.

Through sharing and spreading our UD Guidelines among all of our employees, and providing products to people of diverse values and cultures, we aim to further develop our business operations both within Japan and around the world, and create synergy.

Kao Universal Design Guidelines



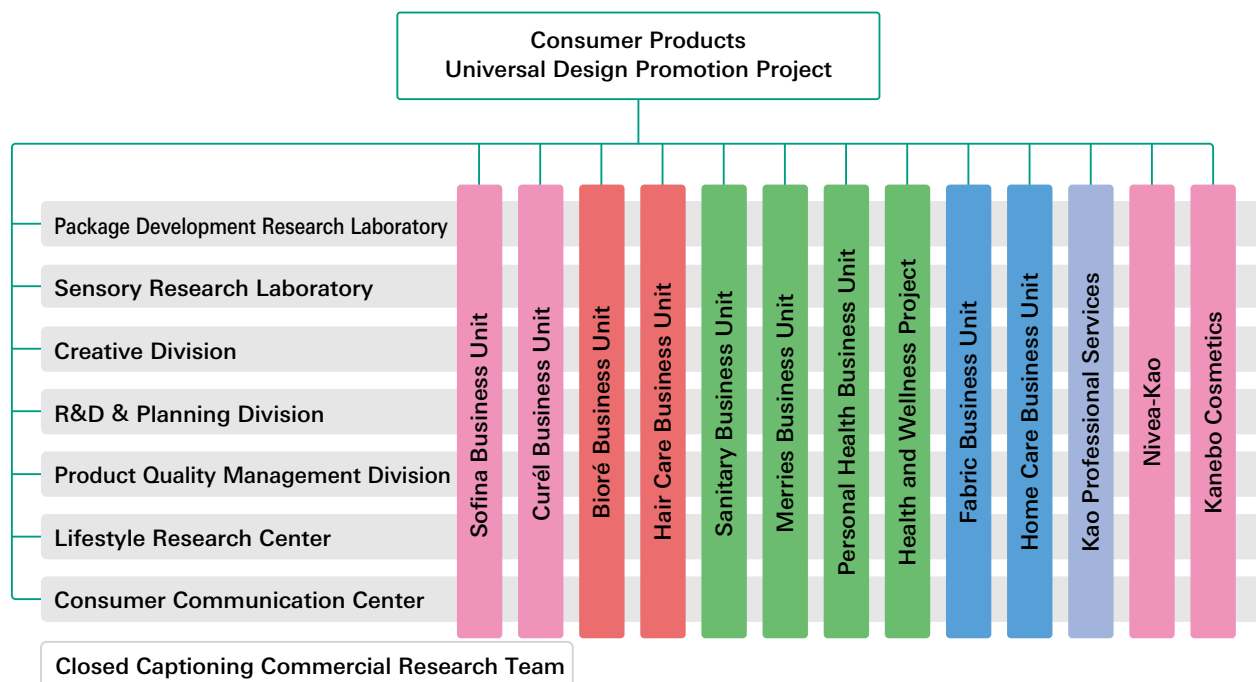
Framework

Our activities to promote UD are incorporated in the core aspects of the manufacturing part of the Kao Group's business operations. To this end, the final decisions regarding commercialization of new product concepts are entrusted to individual business divisions. Rather than reporting activities focused specifically on UD, we undertake product development from a UD perspective as part of our regular business activities.

A cross-business approach is vitally important for

UD promotion. Our Consumer Communication Center, which features a customer consultation window that deals directly with customer requests and feedback, functions as a secretariat. Through our UD Promotion Project, the participants in which include individual divisions and related departments, we strive to share improvement case examples among each of our divisions, and realize continuous improvement from a UD perspective.

Universal Design Promotion Project System



* As of December 2018.

Education and promotion

Workshops for Promoting Empathy with Elderly People

We hold Workshops for Promoting Empathy with Elderly People, with the aim of helping our employees develop a greater sense of empathy with, and understanding of senior citizens. Staged using a mock single-family home, employees use equipment that gives them a virtual experience of what it is like for a person requiring Level 1 Nursing Care to perform daily activities such as housework. By performing home living activities over half a day, employees are able to develop a better understanding of what it is like to be a senior citizen with physical constraints. By actually using our products, participants are able to identify issues relating to their usability and product information labeling.

- Workshops for Promoting Empathy with Elderly People held in 2018: 4 workshops, with 48 participants in total.

Universal Manners Test implementation

As our employees need to communicate with diverse groups of people, including senior citizens, we have been encouraging employees to study for the Universal Manners Test overseen by the Japan Universal Manners Association. The Japan Universal Manners Association defines Universal Manners as "the thinking and actions appropriate for communicating with diverse groups of people, including senior citizens, people with disabilities, stroller (pushchair) users, and foreign nationals, etc." The aim is for our employees to understand the challenges and mentality of these different groups of people, so that they can utilize this knowledge not only in their daily lives but also in business activities.

- No. of employees who passed the Universal Manners Test at Level 3 in 2018: 160.

Collaboration with stakeholders

- Participation in and collaboration on events organized by government agencies, such as the Kurashi Festa Sumida exhibition, etc.
- Collaboration on *Home Life*, a voice-based magazine published by the Japan Braille Library.
- Promoting widespread adoption of the new product safety icons developed by the Japan Soap and Detergent Association.
- Providing support through the Kao Heart Pocket Club.



Kurashi Festa Sumida 2018

Mid- to long-term targets

Mid- to long-term targets and performance

1. Develop products from a UD perspective on an ongoing basis for all products. Expand *Yoki-Monozukuri* from a UD perspective not only in Japan, but also globally.
2. Take the UD perspective into account when designing methods and content for spreading information and improving store layout. In particular, provide information for all products that enables anyone to easily access and confirm what they need to know when selecting and using those products.
3. Aim to enrich the lives of people globally and to contribute to the sustainability of the world by spreading awareness of UD initiatives implemented by the Kao Group as widely as possible and fostering understanding of these measures among stakeholders.

Anticipated benefits from achieving mid- to long-term targets

Cost reductions or profit increase

While activities in this area have originated largely in Japan, the aging of the population and consumer diversification are issues that are global in scope. By utilizing the attention to detail for which Japan is famous to develop products that are easy to use for diverse groups of people throughout the world, we can enhance our presence and also achieve revenue growth.

Impacts on society

Kao's UD initiatives contribute to realizing the goal of "Leaving no one behind" that underpins the SDGs, because they embody a diversity-focused concept that seeks to provide easy-to-use products for everyone, regardless of age, gender, disability, race, ethnicity, birthplace, religion, economic status, etc.

Performance in 2018

Performance

1. Product development from a UD perspective

- Implementation rate of new and improved product enhancement from a UD perspective
Japan: 83%, 915 items.
Europe and the Americas: 11%, 75 items.
- Expanding our range of easy-to-use foam-type products.

We launched Kao's *PureOra* Foaming Toothpaste in 2018.



→ p. 107 Our initiatives: Our new products launched in 2018 incorporated UD considerations

2. Spreading information from a UD perspective

The Kao Group has adopted multi-lingual labeling for providing product information to foreign nationals living in or visiting Japan. As of December 2018, the Kao website had Chinese-language and English-language product information for around 300 product items. In addition, two-dimensional codes are being applied to product information installed in stores so that consumers can immediately access product information in Chinese or English.

3. External UD awareness-raising activities

- Holding a UD lesson for junior high school students (once).
- Holding seminars (twice) and special events (twice).

We used seminars and special events taking UD as their theme to spread awareness of our UD initiatives.

We have also used regular product presentation activities as an opportunity to inform people of the measures that we have been taking from a UD perspective.

4. Initiatives targeting diverse groups of people Initiatives to aid people with visual impairments

- We gave a presentation on doing the laundry at a seminar for people with visual impairments organized by the Special Needs Education School for the Visually Impaired, University of Tsukuba (July 2018).
- We participated in the "Experiential Activity and Exhibition for the Blind and Visually Impaired" organized by the Osaka Society for Visually Impaired People (March 2018).
- Our employee volunteers narrated and provided lifestyle information for *Home Life*, a voice-based magazine published by the Japan Braille Library for its members (December 2018).

Initiatives to aid people with auditory impairments

We commissioned ShuR Group to provide sign language consumer consultation service for Kao through its Video Relay Service. A special seminar on oral care and laundry (areas for which there is particularly high demand) was held at the commemorative event to mark the 10th anniversary of ShuR's founding (November 2018).



→ p. 106 Our initiatives: Daily living lectures using sign language at ShuR Festa 2018

Initiatives to provide support for cancer patients

We participated in the Gankurashi Fair 2018 event organized by NPO Cancer Ribbonz, introducing Kao products that can help people who are undergoing, or have completed, treatment for cancer (October 2018).

5. Activities to spread closed captioning TV commercials within Japan

We have been promoting the airing of closed captioning TV commercials in regular broadcasts since 2011. So far, around 1,500 commercials (including commercials on the Kao website) featuring closed captioning have been produced. Commercials that have not been broadcast on TV have been made available on the website.



→ Kao's Official YouTube channel
Commercials with closed captioning are available for viewing
www.youtube.com/user/KaoJapan/

Reviews of performance

In Japan, we started implementing measures to enhance new products and improved products from a Universal Design (UD) perspective starting from 2012, while also adopting a multi-faceted approach toward applying UD considerations to existing products.

Globally, by sharing and spreading the UD perspective among our employees, who are engaged in providing products to customers, we are expanding our provision of products and information from a UD perspective to people with diverse values and cultures.

Our initiatives

Promoting the adoption of new safety icons for consumer products

To make warnings more effective and easier to understand for consumers, the Japan Soap and Detergent Association (JSDA) developed 10 types of new safety icons for consumer products and published them in June 2017.

Regarding the use, application, etc. of these safety icons, the JSDA and the Japan Detergent and Bleach Safety Advisory Council have established voluntary standards (guidelines).

We are sequentially applying these safety icons to labels on our bleach, mold removal and other household products from February 2018 onwards.

Example of the adoption of new safety icons on Kao products



Before the adoption.



After the adoption.

Newly developed JSDA safety icons * The following warning statements are given as examples only.

Prohibition



Keep away from children



Keep away from eyes



Do not ingest



Do not change container to store contents



Do not mix with other products

Mandatory Action



Rinse hands thoroughly after use



Wear protective gloves



Wear protective gloves and a mask



Use only in a well-ventilated area



Rinse eyes thoroughly with water

Daily living lectures using sign language at ShuR Festa 2018

We have established a sign language consumer contact window to make it easier for people with auditory impairments to consult with us. The provision of this sign language video relay service has been outsourced to the call center of ShuR Group, an enterprise that provides services which integrate sign language and IT.

To mark the 10th anniversary of the founding of ShuR Group, the ShuR Festa event was held on November 17, 2018. At the invitation of the organizers, we gave two lectures at the event: “Washing Fashionable Clothes and Stain Removal” and “Preventing Dental Cavities and Preventing Gum Disease.”

The lectures, which incorporated a quiz format to enhance the sign language communication with attendees, were very well-received, with comments that included “I learned how easy it is to wash fashionable clothes at home.”

Participating in this event brought home to us the fact that people with auditory impairments often find themselves restricted in terms of their ability to obtain information passively from TV and other media, which can put them at a disadvantage compared to the people with normal hearing. Due to the need to make a proactive effort to obtain information, people with auditory impairments often end up giving up on their efforts to make inquiries about products. Taking part in this event reinforced our awareness of the importance, for a business enterprise, of delivering information properly.



Daily living lecture given using sign language

Present Kao's UD initiatives to the general public

Responding to requests from government agencies and other organizations interested in UD, we have been implementing activities to present Kao's UD initiatives.

In 2018, besides participating in events such as the Kurashi Festa Sumida exhibition, we also gave presentations at the Machida Adult Education Center in Machida City and at Kobe UD College in Kobe City. In these presentations, we introduced Kao products that correspond to the three key perspectives embodied in Kao's UD Guidelines—Accessibility, Usability and Safety—as well as examples of products that reflect our goals of “Creating joy through products” and fostering “Social inclusion.”

The presentations included extensive opportunities to actually touch and experience real products. Comments from participants included: “I was really impressed by the amount of hard work and research that has gone into these products. We tend to take these products for granted in our daily lives, but the presentation showed how the commitment and hard work of Kao employees helps to make products easy to use.”

In the future, we will continue to hold activities of this kind that help people to understand Kao's approach to UD and our UD initiatives.



UD presentation for the community

Our new products launched in 2018 incorporated UD considerations

We are continuing to develop products that make it possible for diverse groups of people to use our products in a stress-free manner in different circumstances. In this section, we present some examples of how new products that Kao launched in 2018 took UD into account.

Rerise Hair Dye Dispenser—the new hair dye product for gray coverage

We are living in an era in which more and more people can expect to live to 100. In May 2018, Kao launched *Rerise* Hair Dye Dispenser, which can be used to dye gray hair without damaging the hair.

This product contains 100% naturally derived melanin sources for black hair.* By applying this product after shampooing and leaving it on for five minutes before rinsing it off, gray hair will gradually be restored to a natural black color. The product can be used repeatedly without damaging the hair. The *Rerise* container has also been carefully designed so that anyone can use it easily in the bath without making a mess.



Dispenser head

The dispenser head is designed so that you press it with the thumb, making it easier to exert enough force. The product continues to come out as long as you keep pressing.

Thumb hook

The dispenser head is resistant to the thumb sliding off even when wet, making it easy for anyone to extract the product.

This product is recommended for people who find that their hair stays gray no matter how many times they dye it, or who are worried that repeatedly using hair color products will damage their hair.

Following the launch of *Rerise*, we received many appreciative comments, such as: “I have been worrying about my gray hair for



Rerise Hair Dye Dispenser

years, but now that I can dye it easily I have become much more cheerful,” and “I wasn’t able to use hair color products because of an allergy, so I was amazed to discover this new product that dyes my hair beautifully and which doesn’t harm my skin. I can get unbelievably good results when dyeing my hair at home.”

* Coloring ingredient (dihydroxyindole).

Easy-to-use PureOra Foaming Toothpaste

We launched Kao’s *PureOra* Foaming Toothpaste, which delivers toothpaste in foam form directly onto the tongue, in April 2018. Bacteria on the tongue are a major cause of bad breath. *PureOra* is a new type of toothpaste that helps to prevent bad breath by killing bacteria using a fine foam that adheres directly to the tongue.

Since *PureOra* was launched, we have received many positive comments such as: “The foam is very gentle, and it really does get the tongue clean,” and “I like the fact that it is so easy to use. My bad breath is much less noticeable now.”

Users press on the container to get the foam out, and there has been praise for how easy it is to use: “I have rheumatism, which makes it difficult to extract toothpaste from a tube. With this new type of container, you can use it one-handed just by pressing, which is very convenient.”

Since 2012, Kao has been participating in events at which we can introduce products and information that are useful for people who are dealing with cancer in their daily lives. In October 2018, we showcased *PureOra* at the Gankurashi Fair 2018 event organized by NPO Cancer

Ribbonz. We received comments from healthcare professionals such as: “Patients who are bedridden find conventional toothpaste difficult to rinse out, and mouthwash tends to dribble out or choke them. What is good about this foaming toothpaste is that it avoids these kinds of problems.” From patients currently undergoing medical treatment, we received positive comments such as: “I have a problem with mouth inflammation, and liquid mouthwash stings the inside of my mouth, but the foam toothpaste is gentle on my mouth, so I want to keep using this.”



Introducing Kao’s foaming toothpaste product at the Gankurashi Fair 2018 event

Kao's approach

Kao continues to use close, in-depth communication with consumers to ensure that customers' feedback can be utilized effectively to enhance *Yoki-Monozukuri* and the services that we offer, while providing essential lifestyle information to consumers of all ages. In aging populations, steadily increasing levels of digitalization and continuing globalization, the question of how best to interact with consumers has become a vitally important issue when deciding on consumer communication strategies. Kao adopts a forward-looking response to changes in our consumers' living environments and the accelerating digitalization of communication methods, and we will continue to proactively develop new measures in this area with the aim of being a trusted partner for consumers 24 hours a day, 365 days a year.

Kao's creating value to address social issues

Social issues we are aware of

The changes taking place in society are very much reflected in our communication with consumers. For example, the number of inquiries about our products from senior citizens has steadily increased. At the same time, the use of social media for communication purposes has become increasingly common, particularly among younger people and a wide range of information is now being exchanged via social media.

In this kind of society, it is easy for information gaps to emerge between consumers who are unable to respond to digitalization and business enterprises and it becomes increasingly difficult for consumers to make reasoned decisions based on their own knowledge. At the same time, there is a strong tendency for the digital native generation to pursue their own solutions through online means and to consult with businesses less frequently. Online information is not necessarily accurate, and consumers attempting to implement solutions based on incorrect information are a matter of concern.

In addition, the impact of consumption by foreign tourists to Japan is increasing. Proper understanding and use of products by foreign visitors and residents in Japan are also issues of concern.

Kao's creating value

We believe that by endeavoring to provide consumers with fair, accurate and easily understood product information as well as information relating to consumer lifestyles such as residences and clothing, we can help consumers engage in ethical and safe consumption behavior that takes society and the environment into consideration.

At our consumer consultation desk inside our Consumer Communication Center, we take feedback from individual consumers seriously and strive to understand their feelings, solve their problems and understand the background in support of *Yoki-Monozukuri* from a consumer-driven point of view. In order to enable consultation desk to provide service to everyone in accordance with the concept of universal design, we set up a consultation desk for sign language, taking into account people with hearing impairments. For people with visual impairments, we have added descriptive text to the images and tables in our product catalog on the Kao website that can be read audibly with speech reading software.

To facilitate communication with a wide range of consumers and disseminate accurate information online, we are working to diversify the channels through which we communicate with consumers, by strengthening active support using SNS (Yahoo! Chiebukuro; Japan's largest knowledge-sharing community service), among

other ways. We are also adopting multi-lingual labeling of product information to ensure accurate understanding of our products by the increasing numbers of foreign visitors and residents in Japan. Two-dimensional codes are being applied to product information installed in stores so that consumers can immediately access product information in Chinese or English on the Kao website.

Risks related to realization of our vision by 2030

1. Dissatisfaction with the lack of information in response to demands for disclosure of ingredients, safety information, and so on as a result of rising consumer awareness regarding safety and security.
2. Reputation risks in cases of delayed or inadequate responses to substances of concern (environmental and safety).
3. Dissatisfaction with products as a result of inadequate consideration of biodiversity.
4. Expansion of damage caused by inadequate quality or defects.
5. Outflow of products to foreign countries as a result of cross-border e-commerce.
6. Leaks of acquired personal information and tighter regulations relating to the protection of personal information.

Opportunities related to realization of our vision by 2030

1. Provision of accurate product information relating to ingredients, safety, etc.
2. Disclosure of reliability information relating to safety and security.
3. Opportunities to call for improvements in product development and products sold.
4. Development of new products and opportunities for improvement proposals through global information sharing.

Contributions to the SDGs



Policies

The Consumer Communication Center serves as our contact point with consumers, to not only respond helpfully to specific comments and requests submitted by consumers in an accurate, quick and courteous manner, but also to gain a well-developed understanding of actual usage situations through our customers' concerns and lifestyle habits and of feelings as a person.

Declaration of Consumer-orientation

In January 2017, we announced Declaration of Consumer-orientation. Under the group philosophy, the Kao Way, we will promote top management's commitments to all of our employees, ensuring corporate governance as well as achieving customer satisfaction. Moreover, with all employees taking part in *Yoki-Monozukuri* to provide products and brands useful to the sustainability of society, we take customer feedback seriously, utilizing it to improve our products and services, and proclaim that we will provide information from the point of view of our customers in addition to actively engage with customers.



→ p. 112 Our initiatives: Evaluation of consumer-oriented initiatives



→ Declaration of Consumer-orientation
www.kao.com/jp/corporate/sustainability/declaration/customer-first/ (Japanese)

Collaboration with stakeholders

Exchanging information with consumer groups and with government agencies responsible for consumer affairs

We paid visits to 82 local consumer centers and other such facilities located primarily in the Tokyo Metropolitan and Kinki regions to exchange opinions on consultations regarding our products, recent consumer trends and noteworthy consultation issues.

Implementation of exchange activities involving consumer-oriented events

We continue to participate in Children's Day for Visiting Kasumigaseki and the Sumida Consumer Lifestyles Exhibition in response to requests from governmental agencies, and we offer a wide range of information concerning laundry, hand washing, cleaning, oral health care, universal design and other topics.

Evaluating communication with consumers

To verify whether our communication with consumers is satisfactory, we implement regular consumer surveys regarding our consumer communication.

In 2018, we asked consumers to assess the quality of how we answered inquiries by either telephone or e-mail, and their level of satisfaction. The results showed that around 90% of consumers were satisfied with our answers.

We will be using the evaluation comments that we received from consumers to realize further improvements in our handling of customer inquiries, and we will be working to achieve even higher levels of customer satisfaction.

Framework

We developed the Kao ECHO System database in 1978. This system, which has been upgraded since then, serves as a bridge for effective communication between consumers and us, and provides a foundation for our entire company to share and utilize consumer feedback. In 2017, we developed a new system that allows sharing of global customer feedback and first introduced the system in Japan. We plan to also introduce the system in Asian countries in stages.

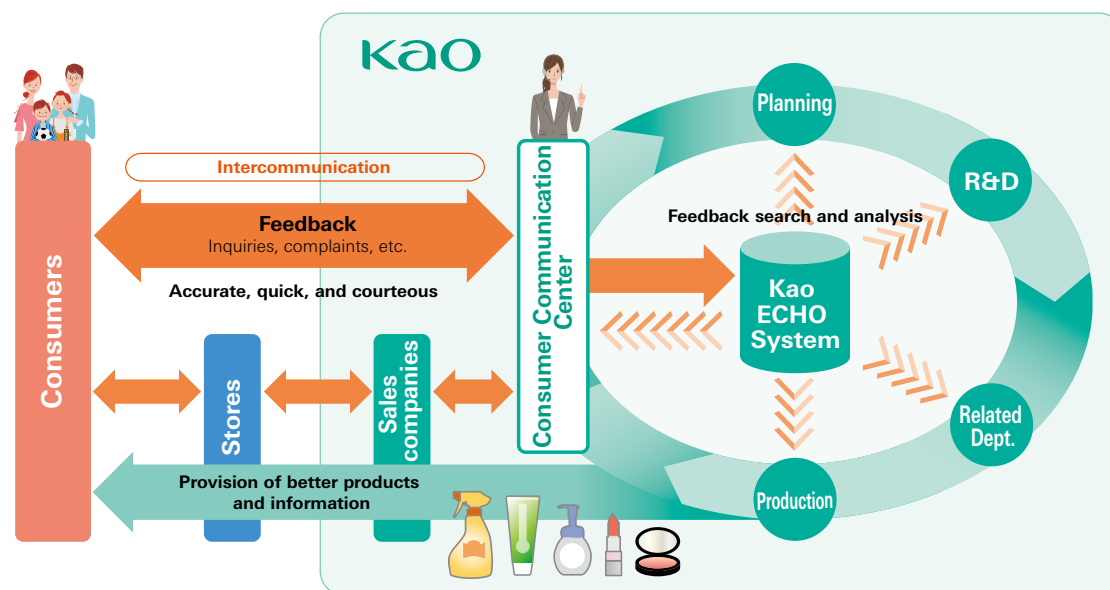
The database stores a wide range of information on all our products, ranging from basic product information, including product improvement history, to daily lifestyle related information. By accessing this information, staff at the Consumer Communication Center can respond to inquiries from consumers in a prompt and appropriate manner. In addition, while taking

suitable measures to protect personal information, the system compiles a list of all consumer inquiries received each day and makes this data available to all divisions.

Related divisions are able to make effective use of the Kao ECHO System by analyzing inquiry trends by product category and using the results in product development, marketing and quality improvement activities and so on.

Divisions involved in responding to consumers prepare monthly reports for distribution to and sharing with the entire company including top managers and persons responsible for each division. In addition, urgent and important matters reported by customers are sent to relevant divisions the same day and the information is shared throughout the entire company including top management promptly so that responses can be made.

Framework for reflecting consumer feedback in products



Education and promotion

To enhance our capability to respond to consumer inquiries, we implement periodic assessments of our consumer inquiry response ability. We also work actively to create training opportunities by, for example, arranging for external instructors to provide response quality improvement training for employees, and by encouraging employees to make use of external training providers.

In order to better understand our consumers' viewpoints, we hold training sessions (Real Voice Training) in each relevant division, in order to put them toward business use. In 2018, training was conducted for the Education Division, Legal Affairs Division and Human Capital Division, which are divisions that conduct counseling operations.

To help ensure appropriate, timely response to consumer inquiries based on the Kao Way, we carefully monitor consumer communication activities in group companies throughout Asia, using the daily exchange of information by means of e-mail and telephone calls, as well as regular web conference meetings to ensure consultation responses in accordance with shared value criteria and action criteria.

In 2018, consultation response activities in each country were made visible and targets were clarified for the purpose of providing consultation responses tailored to the business environment and social environment in each country. Once a year, we hold a conference that brings together staff from all over Asia responsible for consumer communication to report on activity results in their respective countries during the past year as an opportunity to learn from one another, leading to improvements in consumer consultation responses in each country.

Mid- to long-term targets and performance

Mid- to long-term targets

While collaborating closely with our partner companies, we are striving to enhance the overall level of our advantageous consumer- and customer-driven approach and of the capabilities of frontline operations (*genba*) and our total strength, which together constitute an integrated system, so as to accelerate the implementation of our business strategy. To this end, we are committed to the continuing exchange of information with consumers in our role as a trusted partner for consumers, and will provide consumers with optimal solutions for their problems, wherever and whenever they need our help.

By promoting effective communication with consumers, we can identify risks at an early stage and take appropriate, timely action to deal with them, while also using the collection and analysis of customer

feedback to invigorate the group's *Yoki-Monozukuri*.

Main initiatives related to consumer communication

1. Answering consumer inquiries by means such as telephone or e-mail.
2. Providing practical information on our website.
3. Providing active support for questions posted via SNS (Yahoo! Chiebukuro).
4. Exchanging information with consumer groups and with government agencies responsible for consumer affairs.
5. Implementation of exchange activities involving consumer-oriented events.

Anticipated benefits from achieving mid- to long-term targets

Cost reductions or profit increase

- Higher efficiency of consumer communication by providing various means of information acquisition.
- Enhanced information disclosure leads to higher resolution of issues by consumers on their own, reducing the number of inquiries.
- Higher efficiency through virtual responses using AI.
- Multi-lingual support by consumer consultation desks.
- Increased loyalty to our brand through control of reputation diffusion.

Positive influences on society

- Contributions to better consumer lifestyles from the perspective of diversity as a result of enhanced information provision, multi-lingual support, and diversification of means of information acquisition.

Performance in 2018

1. Answering consumer inquiries by means such as telephone and e-mail (Global)

Working together in 2018, Kao Corporation, Nivea-Kao Co., Ltd., and Kanebo Cosmetics Inc. answered around 216,000 consumer inquiries received via telephone and e-mail in Japan (equivalent to 99% of the previous year's total). In Japan, there has been an increase in inquiries from the elderly regarding product differences and usage, especially from older men, reflecting Japan's superannuated society. People aged 60 or above now account for more than 40% of all inquiries received. Outside Japan, we make effective use of the Kao ECHO System to ensure effective implementation of our quality management activities.

2. Providing practical information on our website (Japan)

Product information for our products can be viewed online using our online product catalog. Our product catalog website displays not only product images and details of product features for all our regular products, but also basic information displayed on product packaging labels including product components, acidity/alkalinity, usage and other important notice.

3. Providing active support for questions posted via social media (Japan)

On Yahoo! Chiebukuro, under the user name "kao_official," Kao Official Support began providing answers to

consumers' questions posted to the service beginning in 2015. In 2018, an estimated total 2,600 new questions were answered. One of the key features of social media is that answers of questions stay on the feed and can be read by many people with similar issues, thereby contributing to the wider dissemination of accurate information. In 2018, the approximately 6,800 responses provided to date were viewed some 1.59 million times (an average of 130,000 times per month), nearly doubling every year. In addition to responding to inquiries, we also monitor questions concerning Kao brand and focus on collecting information on methods of product use frequently discussed on SNS and through word of mouth communications.

Our initiatives

Providing information on the Kao website

Providing information on whether a product corresponds to dangerous goods for air transport (dangerous goods classified by the UN)

Inquiries such as “I’d like to send this item to a friend or acquaintance overseas, but is that okay?” regarding overseas transport via aircraft have increased. In the past, we posted the “Warning When Sending the Product by Air” online for applicable products so that consumers can confirm necessary information when shipping our products overseas, and in 2018, we also posted information for non-applicable products.

Reinforcement of consultation framework for skin problems with cosmetic products

In response to consultations regarding physical problems, we established a structure that can determine the initial symptoms of customers whose symptoms have not improved and provide detailed support.

Evaluation of consumer-oriented initiatives

Received the First-Year Selection of Consumer-Oriented Management Companies for Best of the Minister of State Commendation

In 2018, we announced to the status of follow-up activities to the Voluntary Declaration of Consumer-oriented Management released in 2017. We promote top management commitment, ensure corporate governance, advance the spirit of *Yoki-Monozukuri* to achieve customer satisfaction and provide products and brands useful to the sustainability of society, take customer feedback seriously so as to improve our products and services, and provide information from the customers’ perspectives, and actively engage with them. These dynamic commitments and activities have led to the honor we received this time. Details can be found on our website under Voluntary Declaration of Consumer-oriented Management 2017 Activities Report.



Awards ceremony

Received the Consumer-Oriented Activity Prize of the 3rd ACAP Consumer-Oriented Activity Awards

We received the Consumer-Oriented Activity Prize of the 3rd ACAP Consumer-Oriented Activity Awards in February 2018. The Association of Consumer Affairs Professionals (ACAP) recognizes consumer-oriented management initiatives that conserve as models for others (the award is presented with support from the Consumer Affairs Agency and Keidanren [Japan Business Federation]).

We were commended for its active provision of support relating to consumer concerns regarding housekeeping and beauty using an official account on Yahoo! Chiebukuro, an online Q&A site, since 2015.

Kao's approach

As part of our effort to enrich lives and contribute to the sustainability of society, we conduct our corporate citizenship activities with the theme of "creating an environment and developing human capital to nurture the next generation." When it comes to issues that cannot be directly approached through business, we are working in tandem with local communities and NGOs/NPOs with a long-term perspective. Kao also sets up employee participation activities aimed at creating a connection to society and a place where employees can learn, along with Support of

the Arts activities in order to further the development of the culture at the foundation of *Yoki-Monozukuri*. We also implement various activities through The Kao Foundation for Arts and Sciences. Meanwhile, we established a new ESG Division in July 2018 to forge a closer connection between our R&D and our business activities, in addition to our conventional corporate citizenship activities. We are also studying how we can carry out our activities in a globally unified manner to ultimately increase corporate value from the long-term perspective.

Kao's creating value to address social issues

Social issues we are aware of

To work toward solving social issues such as of poverty, education, water and gender equality, which should be addressed by the international community as a whole, enterprises today are increasingly expected to contribute either through their business activities or through donations.

Kao's creating value

Besides contributing to creating a sustainable society through our business activities, we also target social issues that cannot be tackled through business activities and contribute to society on a broader scale as a good corporate citizen, to make it possible for people everywhere to enjoy happy, fulfilling lives.

We use our resources and strengths, in the three areas of environment, education and community, to instill proper daily habits in children based on cleanliness and hygiene. We also support educational activities to develop human capital to take leading roles in science and technology and local

communities in the future.

Furthermore, we aim to build a better society with diverse communities and provide support related to solving social issues that occur in each community, contributing to the stimulation of society. We also support the development of culture through our Support of the Arts activities.

Risks related to realization of our vision by 2030

Failure to give proper consideration to stakeholders and lack of engagement may cause customers, employees and all other stakeholders to lose trust in us and could also potentially damage our brand value in the future.

Opportunities related to realization of our vision by 2030

As a manufacturer of consumables, we have always stayed close to consumers in our business activities. This can also be viewed as manifestation of our desire to create a better society through improving each and

every consumer's convenience and satisfaction. We always look at things from the standpoint of society and think of how we can approach social issues like sanitation, water, health or better living standards that arise in everyday living, so that we can become an essential part of the lives of people all over the world.

Contributions to the SDGs



Policies

We conduct corporate citizenship activities in a planned manner in accordance with the following Corporate Citizenship Activity Guidelines.

Corporate Citizenship Activity Guidelines

- Conduct activities that play a role in nurturing the next generation.
- Conduct activities aimed at contributing to the development of regional communities and culture.
- Conduct activities that protect and nurture the environment to promote a sustainable society.
- Conduct activities that promote a barrier-free society as a form of social support.
- Conduct activities that make effective use of Kao's resources.
- Create an atmosphere in which every employee can participate in social activities as a good citizen.



→ Overview of Corporate Citizenship Activities
www.kao.com/global/en/sustainability/society/approach/

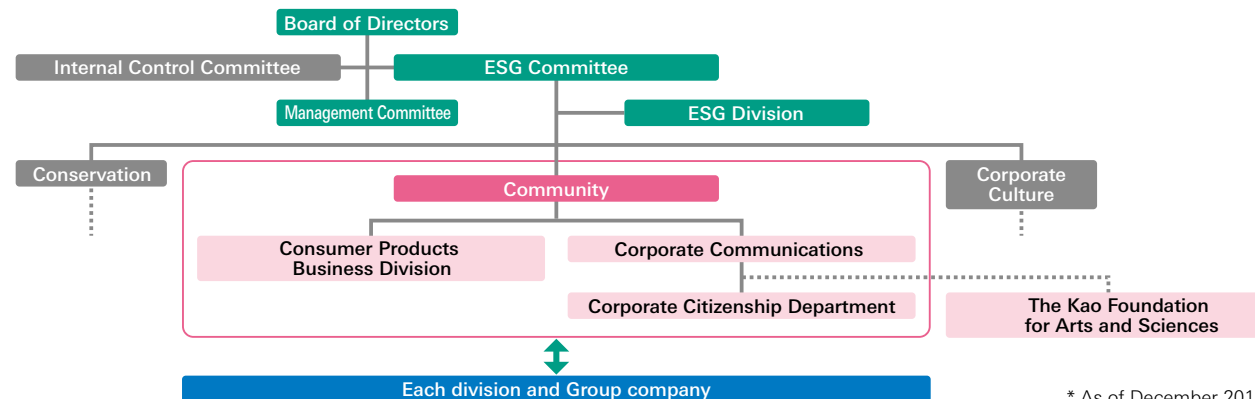
Overview of corporate citizenship activities

Theme	Creating an Environment and Developing Human Resources to Nurture the Next Generation		
Key domains (Programs)	Environment	Education	Community
	<ul style="list-style-type: none">● Kao Creating Forests for Everyone● "FURUSATO" Environment Conservation Project in Northern Thailand	<ul style="list-style-type: none">● Kao Earthwatch Teachers' Fellowship● Supporting science education/ Education programs	<ul style="list-style-type: none">● Kao Family Concert● Kao Social Entrepreneurship Schools
Employee participation activities	Kao Heart Pocket Club, Pink Ribbon Campaign		
Support of the Arts	Tokyo Music Competition, New National Theatre Tokyo Special Corporate Supporters Group, sponsorship for ballet and large-scale art exhibitions		
The Kao Foundation for Arts and Sciences			

Framework

Focusing on Community, one of the key areas in our Sustainability Statement, we work to promote cooperation with relevant departments, mainly the Corporate Communications and the Corporate Citizenship Department and also by the Consumer Products Business Division, other related divisions and our global group companies. The senior vice president of the Corporate Communications reports once a year to the Board of Directors, giving a summary of activities, expenses for activities and so forth. The newly established ESG Division reviews and executes the corporate citizenship activities we conduct globally and which are closely linked to our R&D and our business activities.

Implementation framework for corporate citizenship activities



* As of December 2018.

Education and promotion

We endeavor to enhance understanding of our activities by communicating information on a wide scale, both within and outside of Kao.

Internally, we share case studies via the company intranet or employee training sessions, and we aim to create connections with society and cultivate a broader outlook among employees by providing them with opportunities to participate.

Externally, we make use of brochures describing our activities and of our company websites, to inform stakeholders about our activities and about events that we have organized.

Collaboration with stakeholders

Our corporate citizenship activities are implemented in collaboration with many different stakeholders, including NGOs and NPOs. By ensuring opportunities to exchange information regularly with operational partners in key corporate citizenship projects, we are able to monitor program implementation status and make improvements where necessary. Meanwhile, we receive regular activity reports from the NPOs and other organizations whose activities we support. By helping to give us a deeper understanding of the social issues that represent the background to these activities and of the social impact of these activities, these reports assist in contributing to the realization of our vision of enriching people's lives. Periodically exchanging information and listening to feedback on site allows us to brush up programs to meet on-site needs and society's movement.

Mid- to long-term targets and performance

Mid- to long-term targets

In the areas of environment, education and community in which we concentrate our corporate citizenship activities, we work to achieve solutions globally with local communities when social issues cannot be approached through our business activities.

Voluntary participation in corporate citizenship activities gives our employees a way to develop a connection with society and opportunities for personal growth which they can apply to their work.

1. Instilling good lifestyle habits in children

Water and Sanitation Project for Schools in Vietnam: We aim to support 35,000 students at 60 schools over the five-year period from 2016 to 2020.

2. Nurturing people who will lead future science and technology development

JSEC (Japan Science & Engineering Challenge): We support a maximum of nine high school students at three schools every year.

3. Community participation and problem solving support

Kao Social Entrepreneurship Schools: We support three organizations every year.

4. Promoting the participation of Kao employees in social activities

Anticipated benefits from achieving mid- to long-term targets

Cost reductions or profit increase

Ethical consumption behavior is becoming more widespread today, and we can gain consumers' trust by steadily carrying out the activities we aim toward our goals and continuing to communicate. In this way we hope that these activities will help us win long-term loyal customers.

Impacts on society

By instilling proper daily cleanliness and sanitation habits, we hope that we can improve sanitation in the communities we support and contribute to improving living standards over the medium to long term. We believe that offering support for developing human capital that will play leading roles in science and technology in the future, and nurturing young leaders who can invigorate their communities, will help make the next generation the driving force that will bring everyone a prosperous and comfortable life.

At the same time, encouraging our employees to participate in corporate citizenship activities will help stimulate their creativity and translate into more innovative, higher-value *Yoki-Monozukuri*.

Performance in 2018

Implemented a corporate citizenship activity program

1. Instilling good lifestyle habits in children

① Water and Sanitation Project for Schools in Vietnam (in cooperation with UNICEF).

- Provided education about hygiene to 2,100 students at seven schools in An Giang Province.
- Improved toilets and sanitation facilities at two public kindergartens in An Giang Province.
- Trained approximately 100 voluntary instructors and community leaders.
- Supported installation of water purifiers with ceramic filters at 40 schools (serving 12,000 students and teachers) in An Giang Province.
- Conducted a basic study at 22 schools in remote areas of Dien Bien Province.

② Hand washing awareness

- Japan
 - Hand washing class: Conducted educational activities for 5,940 students at 88 schools throughout Japan. (With other types of class included, classes were held in a total of 135 schools, with 9,773 students receiving instruction.)
 - A total of 806 Kao employees participated as instructors.
 - We provided 1,583 educational kits (2,460 in total for all types of educational kits).
 - Education professionals participated in four training sessions.

- Outside of Japan (Taiwan, Indonesia, Thailand)
 - We conducted hand washing awareness sessions for 67,609 children.

③ First menstrual education

- Japan
 - We distributed first menstruation kits to approximately 744,700 elementary school girls.
- Outside of Japan (Indonesia, Vietnam, Thailand, Malaysia, Hong Kong, Taiwan, China)
 - First menstruation sets were distributed to 491,000 elementary and junior high school girls in these areas.

2. Nurturing people who will lead future science and technology development

Supporting an independent research contest (JSEC) for science and technology

- Invited the winning JSEC 2017 schools for a study tour (March).
- As special sponsors of JSEC 2018, we presented the Kao Award and the Kao Special Incentive Award to eight students from three high schools (December).

3. Community participation and problem solving support

① Family Concerts at worksite areas (Japan)

- Concerts were held in Mashiko-machi in Tochigi Prefecture (April) and Sakata City in Yamagata Prefecture (October).

② Kao Social Entrepreneurship Schools (Japan)

- Three organizations were chosen to receive support and providing opportunities for business growth.
- An "open dialog" meeting to exchange views with Kao employees was held in November for the purpose of presenting reports on results achieved by groups that Kao supported in 2017, and for the launching of support for groups receiving our support in 2018.

③ Disaster relief and recovery support activities (Global)

- Made donations via the Japanese Red Cross Society to help recovery after the Hokkaido Eastern Iburi earthquake in September 2018. In addition, Kao delivered emergency supplies and sets of household essentials, at the request of local government authorities.
- Made donations via the Japanese Red Cross Society to help recovery after the flooding in western Japan in July 2018. In addition, Kao delivered emergency supplies and sets of household essentials, at the request of local government authorities.
- Kao Corporation provided relief funds through Japan Platform, an NPO, and PT Kao Indonesia provided a donation and products after the Sulawesi earthquake in Indonesia in September 2018.
- Kao (Taiwan) and Taiwan Kanebo Cosmetics provided a donation after the Hualien earthquake in Taiwan in February 2018.
- Kao Specialties Americas provided relief goods after the Greensboro (North Carolina) tornado in April 2018 and Hurricane Florence (eastern seaboard of the United States) in September 2018.

4. Promoting the participation of Kao employees in social activities

① Kao Heart Pocket Club (Japan)

- At regular and ad interim meetings held by the Heart Pocket Club, decisions were made as to which groups and activities would be supported.
- The Heart Pocket Club implemented local support, giving support to groups involved in community activities in Tochigi, Wakayama

and Ibaraki prefectures where Kao worksites are located.

- The Heart Pocket Club also donated funds through the Mirai Pocket Fund, which supports larger-scale activities.
- Emergency support following natural disasters.

② Pink Ribbon Campaign (Global)

- Began supporting a cancer education project targeting junior and senior high school students.
- Between October–November, awareness-raising activities were conducted by our beauty advisors at cosmetics counseling corners, etc. in nine different countries and regions.
- Information offered through a special website.
- Made donations matched according to the number of items purchased.
- Support for communicative events: Pink Ribbon Walk (Tokyo).
- Company employees wear Pink Ribbon badges, with information relayed through our intranet system.
- Employee involvement-based donation program: Photo donation.

Spreading information within and outside the company

For Internal

- Providing activity summaries and information related to employee participation activities via Kao's intranet, etc. (33 items)
- Provided information about our corporate citizenship activities during initial training for new employees. (attended by 305 new employees)
- Employee participation volunteer planning: Kao employees engage in volunteering in areas affected by the Great East Japan Earthquake of 2011 with activity presentation meetings and volunteering activities, volunteering activities carried out through the Kao Heart Pocket Club (a donation organization composed of Kao Group employees), and local contribution activities carried out by individual Kao worksites, etc.

For External

- 50 items of information have been distributed via our company website and Facebook.



→ Corporate Citizenship Activities Report
www.kao.com/global/en/sustainability/society/social-reports/

→ Sustainability section of the Kao website >
 Measures to Contribute to Society
www.kao.com/global/en/sustainability/society/

Our initiatives

Instilling good daily cleanliness and sanitation habits in Vietnam

As part of our mid-term business strategy, Kao is seeking to expand the scope of our business activities in Asia. One of the countries in which we are working to grow our business is Vietnam. However, because of the significant income gap, there are many people in Vietnam who we cannot reach through our business activities. Sanitation and hygiene conditions in Vietnam's rural and mountainous districts, and districts with large ethnic minority populations, tend to be unsatisfactory, with chronic diarrhea and other diseases causing problems to children's health and impeding their development.

Supporting UNICEF's school sanitation project

Since 2016, we have been supporting school sanitation project activities through the United Nations Children's Fund (UNICEF).

Following good results with the program in An Giang Province in the Mekong River Delta in the southern part of the country, in 2018 we have expanded support to Dien Bien Province, a mountainous region in the north where most people are ethnic minorities. After a basic study to ascertain conditions and draw up a support program, we conducted sanitation improvement activities similar to those in An Giang Province. In 2018, we conducted sanitation promotion activities targeting residents of 54 villages in An Giang Province and Dien Bien Province, and made improvements to toilet and

sanitary facilities at two schools, thereby helping to improve the learning environment so that children can feel safe about using the sanitary facilities. We also trained approximately 100 teachers, volunteer instructors and community leaders.

Children spread hygiene awareness, which they learned at school to their families and communities, providing the opportunity to place a new toilet in a home where there was no toilet previously.

Our activities have encouraged An Giang Province to take action to meet standards set by Vietnam's Ministry of Health to eradicate open defecation in more than 240 villages there.

Additionally, to ensure access to safe drinking water in remote areas or in emergencies, we are supporting water purifiers with ceramic filters. This program is linked with the "eco together diary" project among 10-year old elementary school students in Japan, where the children's water-saving efforts are matched with equivalent donations of water purifiers to elementary schools in Vietnam. In 2018, 484 schools participated, and 400 filters were sent to schools in Vietnam.

We will continue working in both the north and south of Vietnam in 2019 to support efforts to improve the sanitation environment and instill good hygiene habits so that schools and communities there can be certified as having eradicated open defecation.



Children washing their hands before lunch at an elementary school in Dien Bien Province

Corporate citizenship activities

Our initiatives

JSEC Sponsorship to help support science education for senior high school students

We believe that the foundation of *Yoki-Monozukuri* is born from cutting-edge innovations created by science and technology, and in order to contribute to a brighter future, we support fostering young science researchers. As part of this, we sponsor the Japan Science & Engineering Challenge (JSEC), which is organized by the Asahi Shimbun Company and TV Asahi Corporation and a contest of independent science and engineering research targeting high school and technology college students nationwide, with the goal of supporting and nurturing.

Every year we present the Kao Award and the Kao Special Incentive Award to recognize excellent work. The review process for selection of the award winners is carried out by our researchers based on a reading of the participants' papers and presentations.

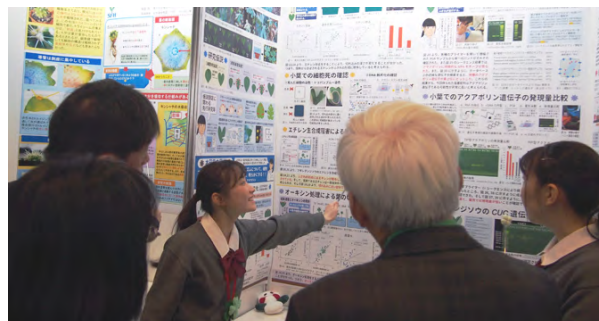
Top JSEC prize-winners are qualified to enter the Intel International Science and Engineering Fair (Intel ISEF) in the U.S.

Also, we invited these award-winning schools to participate in our study tour, during which students have opportunities to visit our facilities and engage in discussions with our researchers, thereby providing support for senior high school students' education and career planning.

Performance in 2018

The Kao Award and the Kao Special Incentive Award were presented at JSEC 2018

- The Kao Award
"Discovery of a Remarkable Oscillatory Color Change in the Iodine Starch Reaction during the Early Stage of Acid Hydrolysis of Potato Starch"
Hayato Shoyama, Momoko Hayashida, Shintaro Yamamoto (Fukuoka Prefectural Meizen High School, Fukuoka Prefecture).
- The Kao Special Incentive Award
"The mechanism of foliole morphogenesis in water clover (*Marsilea schelpiana*)"
Moe Maeda, Hina Tsubokura (Notre Dame Seishin Gakuen Senior Girls' High School, Okayama Prefecture).
"Chemical oscillation in Iron-Nitric acid reaction: Research into a new method for reproducing an oscillating reaction without electrical stimulus"
Shiori Ogawa, Hiori Ikegawa, Shota Miyake (Asahikawa Higashi High School, Hokkaido).



Our researchers listening to passionate presentations of high school students during the final round of judging

Intel ISEF 2018 Excellence Award Recipients

The JSEC 2017 Kao Award recipients, Norika Narimatsu, Ayaka Kosai and Akiho Takata, of Kumamoto Prefectural Uto Senior High School, were selected to represent Japan at Intel ISEF 2018, where they received a fourth-place excellence award in the physics and astronomy division. (June 2018)

Study tours

We organized a study tour for the prize-winning students from Kumamoto Prefectural Uto Senior High School (Kao Award), Nagasaki Prefectural Nagasaki Nishi High School (Kao Special Incentive Award) and Yokohama Municipal Yokohama Science Frontier High School (Kao Special Incentive Award) who won the awards at JSEC 2017, giving the students an opportunity to engage in discussions with our researchers. (March 2018)

Future projects

We intend to arrange study tours for the prize-winning schools from JSEC 2018 and to provide special sponsorship for JSEC 2019.

Expansion of first menstrual education support activities for elementary and junior high school girls

Since first launching sanitary products in 1978, we have offered first menstrual education to girls beginning menstruation as well as families and elementary schools for more than 40 years.

Our first menstruation education set is a pouch that contains an awareness booklet which briefly covers menstruation and bodily changes, along with sample sanitary products, distributed free of charge. In 2017, we began working together with the Japanese Association of School Health, aiming to expand distribution of our sets to 20,000 schools throughout Japan.

Additionally, in 2018, we produced a CD narrating revised content of an awareness booklet titled “Physical changes: What it means to become an adult,” to expand outreach to girls with visual impairments, who tend not to have enough information, their families and educators serving them. Since 2003 we are taking the opportunity of this revision to meet with teachers at schools for the visually impaired and visually impaired individuals, and, based on what we learned at those meetings, we compiled information about how to choose and use sanitary products, personal care during menstruation and so on, taking the daily circumstances of young girls with visual impairments more fully into account.

We plan to distribute this CD to all schools for the visually impaired in Japan and to Braille libraries.



Laurier first menstrual education set



CD narrating the content of the “Physical changes: What it means to become an adult” awareness booklet

Abroad, we began supporting UNICEF’s Menstrual Hygiene Management Project in Indonesia in 2018.

There is not enough correct knowledge about menstruation in Indonesia, where one in four girls does not know about menstruation until she actually starts having a period. Furthermore, superstitions and discrimination regarding menstruation persist. Additionally, since schools do not provide enough

education about menstruation and sanitation facilities are inadequate, one in six girls misses at least one day of school during menstruation, which is one reason for lower school attendance among girls.

To make a dent in this issue, 40 public junior high schools in Tangerang, Banten Province, are engaged in menstruation education to provide more comprehensive knowledge to their students about menstruation sanitation. They have begun training specialized instructors and encourage student-led creation of educational materials, in order to change behavior. Provincial officials, head teachers from the cooperating schools, teacher representatives and employees from Kao Indonesia participated in a meeting to start the project, on May 30, 2018. The program’s aim is to give lectures to over 12,000 students by 2020, including boys, and to encourage more than 2,500 students to change their behavior.



Children discussing menstruation hygiene teaching materials
©UNICEF Indonesia/2018

Topic Kao launches the Hygiene Development Program in Vietnam

With the aim of helping to promote the widespread adoption of cleanliness and hygiene practices in Vietnam, Kao has launched the Hygiene Development Program in Vietnam. This program comprises four component parts: Leader Development for Infection Control, Scholarship for Hygiene Management, Water and Sanitation Project for Schools, and Enhancing Hygiene in the Community. In October 2018, a signing ceremony was held at Hanoi Medical University in Vietnam, with relevant parties including representatives of Hanoi Medical University, Kanagawa University of Human Services and Tohoku University, who signed an agreement on the Leader Development for Infection Control and Scholarship for Hygiene Management components of the Program.

Leader Development for Infection Control will involve putting infection control measures on a more systematic basis, as well as the holding of seminars for medical professionals and students, focusing on infection control measures and hygiene management. This component of the program is being implemented in collaboration with Hanoi Medical University, Tohoku University and St. Marianna University School of Medicine. Other Japanese universities and university hospitals are also expected to participate in the project in the future.

The Scholarship for Hygiene Management, which is intended for graduates of Hanoi Medical University, will provide scholarships to enable Vietnamese students to undertake postgraduate study at Kanagawa University of Human Services in Japan. By cultivating food sanitation management experts who can play an active role in the health and hygiene field in Vietnam, Kao is hoping to contribute toward the realization of healthy lives for Vietnamese citizens.



Agreement signing ceremony

A message from the President of Hanoi Medical University



(Left)
A/Prof. Nguyen Duc Hinh, MD, PhD
Former President, Hanoi Medical University
(2008–2018)



(Right)
Prof. Ta Thanh Van, MD, PhD
President, Hanoi Medical University

2018 is the 45th anniversary of the establishment of formal diplomatic relations between Vietnam and Japan. Various special events are being held to celebrate this anniversary, and relations between our two countries have grown closer than ever. The signing ceremony for the Vietnam Hygiene Development Program has been recognized by the committee responsible for organizing the 45th anniversary celebration as one of the anniversary events.

Hanoi Medical University has close links with Japan. Professor Ta Thanh Van (President of Hanoi Medical University since December 2018) and Associate Professor Tran Huy Thinh, who are involved in cancer immunotherapy research at Hanoi Medical University, learned a great deal while working as researchers under Prof. Tasuku Honjo (Awarded The Nobel Prize in Physiology or Medicine 2018), and Distinguished Professors at Kyoto University. Our Vice President spent eight years undertaking research in Japan, and 40 of our faculty members have experience of performing research in Japan over an extended period.

At Hanoi Medical University, besides the Faculty of Medicine, we also have Vietnam's first Faculty of Nutrition, and infection control measures and hygiene management in relation to medical facilities and areas where food preparation is undertaken are important research areas for our University. I believe that the agreement we have just signed regarding the Leader Development for Infection Control and Scholarship for Hygiene Management projects will contribute to the ongoing cultivation of outstanding "hygiene management leaders" through the integration of the specialist knowledge possessed by research institutions such as Hanoi Medical University, Kanagawa University of Human Services, Tohoku University and St. Marianna University School of Medicine with the medical facility and kitchen hygiene management know-how that Kao has accumulated through its business operations.

I would like to take this opportunity to express my sincere gratitude for the extensive support that Hanoi Medical University and Vietnam as a whole have received from the people of Japan over the years. I very much hope that we will be able to benefit from your continued support in the future.

* This message was contributed by Dr. Nguyen Duc Hinh in October 2018, while Dr. Nguyen was still serving as President of Hanoi Medical University. Professor Ta Thanh Van succeeded Dr. Nguyen as President of the University in December 2018.

2018 Our initiatives

Corporate Culture

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Kao's approach

The Kao Way embodies our corporate philosophy and is the foundation of the corporate culture and business activities of the Kao Group. As our cornerstone, the Kao Way provides consistency to Group activities, from the formulation of mid- to long-term business plans to each individual business decision that we make in our day-to-day operations, and facilitates open communication across divisions and companies. Kao Group companies and members share the Kao Way not as a manual or set of rules but as a foundation from which we are able to determine both the value of our work and the concerns we face.

Kao's creating value to address social issues

Social issues we are aware of

Since our establishment, we at Kao have aspired to enrich the lives of people around the world and contribute to society through our core value of *Yoki-Monozukuri*. *Yoki-Monozukuri* is the word we use to communicate our strong commitment to providing products and brands of excellent value for consumer satisfaction. (The "Yoki" in *Yoki-Monozukuri* literally means "good" or "excellent.")

We have pursued *Yoki-Monozukuri* across our entire 130 years of history, and over time our understanding of what constitutes a "yoki" product, brand, or business has evolved. We not only develop high-quality products at reasonable prices that meet the needs of consumers around the world, but also manage our business so that we are "yoki" for the environment and a positive presence in the societies we serve.

Kao's creating value

We believe that by pursuing *Yoki-Monozukuri*, we will not only be able to grow the Kao Group business while meeting the needs of consumers and customers, but also support economic growth in the

regions in which we operate. In addition, we believe that promoting technological innovation enables us to contribute to the sustainability of the natural world.

Risks associated with achieving our goals for 2030

By 2030, we aim to create a corporate image of a company with a global presence. We understand that to achieve this goal we must first earn the respect and trust of all our stakeholders. We consider our employees to be an especially important source of strength in achieving our goals for 2030. Without the trust, creativity, and passion of employees who embrace our corporate philosophy, we will not be able to earn the trust of external stakeholders or achieve our goal of becoming a positive presence in the global society by 2030. Therefore, we believe that it is critical to establish the Kao Way as a "common language" across the Kao Group and to develop a corporate culture that is based on trust, shared values, open communication, and a commitment to long-term thinking.

Opportunities associated with achieving our goals for 2030

The Kao Way is based on the values of Kao's founder, Tomiro Nagase, who established Kao in 1887. The Kao Way was translated into various languages in 2004 and established as a framework for global corporate culture development in the same year. These early efforts created a strong foundation for global communication of the Kao Way. We believe that this foundation will enable us to further strengthen the values-based corporate culture required to achieve our 2030 goals.

Contributions to the SDGs



For realization of the Kao Corporate Philosophy 102-16, 103-1, 103-2, 103-3

Kao's approach

Policies

In practicing the Kao Way, it is imperative that employees make connections between the abstract language of the philosophy and their day-to-day business decisions. To support this, we run workshops at workplaces across the Kao Group where participants can freely discuss what the Kao Way means to them and how they can practice it in their daily work. These workshops strengthen the sense of ownership of the Kao Way and deepen mutual respect.

We provide a standardized level of basic training on the Kao Way. However, leaders across Kao Group divisions and companies are also encouraged to customize Kao Way sessions to align with their particular business and organizational challenges. The Kao Way Coordinating Office at Kao's Head Office (hereafter Kao Way Coordinating Office) provides program materials and advice to leaders who wish to design customized workshops.

Framework

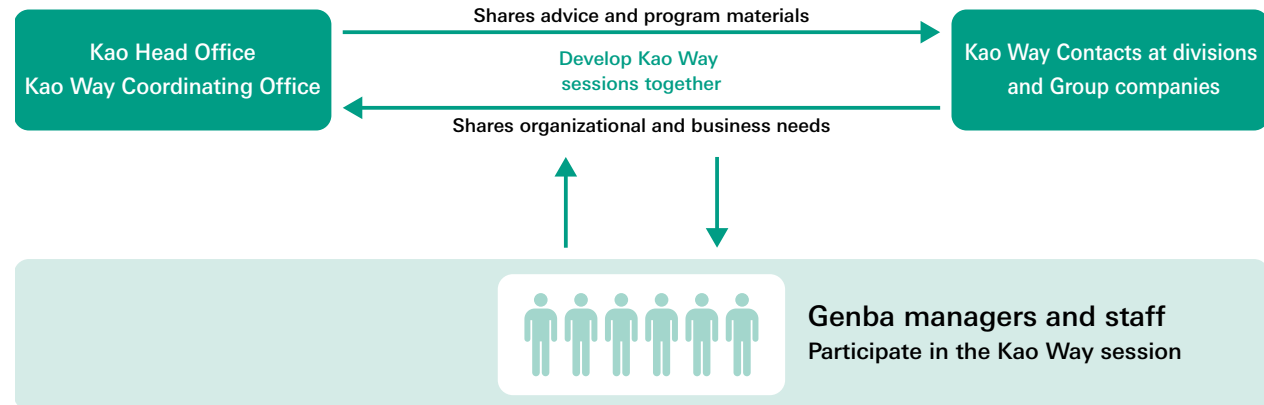
The Kao Group believes that managers play a key role in developing talent and cultivating a corporate culture based on the shared values of the Kao Way. In accordance with this approach, divisions and Group companies are positioned as the owners of Kao Way communication activities.

The Kao Way Coordinating Office supports managers inside and outside Japan by maintaining a network of Kao Way contact persons at each division and Group company. These "Kao Way Contacts" share organizational and business needs with the

Coordinating Office and work with it to develop programs customized for their division or company. The Coordinating Office communicates its priorities and strategy with the Kao Way Contacts at an annual global meeting, and remains in frequent contact with them throughout the year.

The Kao Way Coordinating Office is part of the Corporate Communications Department. It presents an annual report on its activities to the Corporate Committee, and the content of the report is shared with Kao's Board of Directors.

Framework for promoting Kao Way activities



Education and promotion

The Kao Way was published in 2004, and Kao Way communication activities have been conducted on an ongoing basis since then. Kao Way communication activities have three goals, with programs designed to address each goal.

Objective No. 1: Fostering understanding of the Kao Way

The first goal is to achieve a basic understanding across the Kao Group of the content of the Kao Way and the importance of the corporate philosophy in Kao management. Programs addressing this goal include the Kao Way Workshop, a program that has been implemented since 2006; an orientation for new members globally; an induction workshop for mid-career hires in Japan; the Kao Eco-Lab Museum (Group Wakayama Complex in Western Japan), which provides information on ecology-conscious technologies, and the Kao Museum (Group Sumida Complex in Tokyo), which communicates Kao's history.

The Kao Way Coordinating Office also maintains an intranet website that provides employees inside and outside Japan with basic information on Kao's history and corporate philosophy.

Objective No. 2: Leadership development

The second goal is leadership development, which we define as helping managers acquire a leadership style that is both based on the Kao Way and authentic to them. Managers drive Kao's business forward, and as such they must have a strong sense of ownership of

the Kao Way and be able to explain their decisions using language from the Kao Way. They must also acquire the habit of referring back to the Kao Way when faced with business challenges and difficult choices.

Programs related to this goal include the Kao Way Dialogue, a dialogue-style participatory learning program developed in 2014 and implemented in Japan and Asia.

Objective No. 3: Cultivating organizational culture

The third goal is cultivation of our organizational culture. We use the Kao Way to accelerate Kao's ability as an organization to realize global *Yoki-Monozukuri* by enhancing cross-functional communication and empowering employees around the world to develop and share their ideas for the future.

Programs related to this goal include the Kao Way Future Session, a program developed in 2017 that brings participants together from across the Kao Group regardless of age or role to imagine and co-create the future of Kao. This program is implemented regularly in Japan, and a customized version of this program was implemented in the European region in 2018. The Kao Way Coordinating Office is designing programs with a focus on promoting global *Yoki-Monozukuri*.



Kao Way Session

Mid- to long-term targets and performance

Mid- to long-term targets

We intend to continue using the Kao Way to develop values-based leadership across the Kao Group and strengthen our ability to practice our core value of *Yoki-Monozukuri* on a global scale. By establishing our corporate philosophy as a “common language” across the Kao Group globally, we expect to promote a culture of open communication and, consequently, enhance our ability to find the right balance between long-term vision and short-term results.



Expectations from achieving our mid- to long-term targets

Reduced costs and/or increased profits

Realizing our goals will result in a more efficient use of time and more thorough and creative use of assets.

Impact on the wider society

Strengthening leadership and trust-based cross-functional communication at Kao heightens our ability to practice our core value of *Yoki-Monozukuri* on a global scale. This then enhances employees’ creativity and passion to create innovative value for consumers, and at the same time, allows us to make contributions to the environment and be a positive presence in the societies we serve.

Performance in 2018

Performance

In 2018, we continued to focus on our three goals of establishing a shared understanding for the Kao Way, developing leadership, and cultivating an organizational culture that practices *Yoki-Monozukuri* on a global scale. Regionally, in 2018 our focus areas were the Consumer Products Business as well as the Chemicals Business in the Americas and Europe.

Establishing understanding for the Kao Way

To promote a consistent level of understanding of the Kao Way across the Kao Group, we implemented the following activities.

Kao Museum: 2,735 employee visitors
 Kao Eco-Lab Museum: 1,366 employee visitors
 Kao Way Intranet Homepage (globally, including Japan): 12,312 employee visits
 Global New Employee Orientation (globally, excluding Japan): 1,090 participants
 Mid-Career Entrants Seminar (Japan): 111 people
 Seminar for New Employees (Japan): 510 people
 Kao Way Recognition Program (globally, including Japan): 529 people recognized

Leadership development

To develop leadership based on the Kao Way, we implemented the following program.

Kao Way Dialogue Program: A total of 126 participants in Indonesia, Spain, and Germany

Global *Yoki-Monozukuri*

To further strengthen our ability to achieve our core value of *Yoki-Monozukuri* on a global scale, we implemented the following programs.

Kao Way Future Session: 115 participants (Japan)
 Customized Program in Americas and Europe: Approx. 800 participants

Reviews of performance

We have devoted Kao Group resources to communicating the Kao Way globally for 14 years. As a result of these efforts, we have achieved a strong level of shared understanding of the Kao Way across the Kao Group, with manager recognition for the importance of values-based leadership.

After evaluating our results in 2018 and planning for the future, the Kao Way Coordinating Office identified the following three priority issues to address.

- 1) We will strengthen the ability of Kao Group leaders to communicate mid-term business goals and financial targets in a way that links them to our corporate philosophy.
- 2) We will make further efforts to ensure that companies newly joining our Group incorporate the Kao Way while also preserving their original and distinct organizational cultures.
- 3) We will collaborate with internal and external partners to establish methods of assessing the corporate culture across the Kao Group and measuring the success of our communication efforts.

Kao's approach

Kao, in aiming for continuous growth and to become "a company with a global presence," operates lawfully and ethically, conducting fair and honest business activities while responding to changes in society. Kao will strive to foster a compliance mindset in all group employees and further improve its healthy corporate culture through such activities as ongoing education and training in regard to the Kao Business Conduct Guidelines (BCG), and appropriate responses to communications received via the compliance hotlines.

Kao's creating value to address social issues

Social issues we are aware of

There have been many reports of data falsification and other improprieties in the manufacturing industry in recent years, leading to a general distrust of the manufacturing industry. As a consequence, *Yoki-Monozukuri* that complies with laws and ethics is becoming increasingly necessary to maintaining and improving our competitiveness. In addition, in many cases the improprieties went on for years without being viewed as problematic. We see creation of an open workplace atmosphere, in which discovered improprieties are immediately reported to management and an appropriate response is taken, as a key issue.

There is also a growing number of cases of power harassment, due in part to an increasingly diverse workforce and managers with outdated values, as well as sexual harassment, marked by a lack of consideration for the other party. We believe that to prevent these instances and achieve social progress, it is important to create efficient and highly productive workplaces that allow all people to work on an equal standing.

Kao's creating value

We see our mission as contributing to society through

Yoki-Monozukuri, with our business activities based on our value of Integrity (to behave lawfully and ethically and conduct fair and honest business activities) handed down from our founder. We will continue to implement *Yoki-Monozukuri* that complies with laws and ethical principles.

We are also creating workplaces with an open atmosphere that allow talented human capital to fully demonstrate their abilities on an equal standing.

Risks related to realization of our vision by 2030

As competition intensifies globally, there is concern of growing temptation to commit impropriety, including factors such as difficulty in achieving product differentiation, meeting product launch schedules and delivery timelines, and increasing profit. The risk of harassment from the generational gap in values and growing employee diversity is also increasing.

Opportunities related to realization of our vision by 2030

As a result of conducting our business with Integrity as one of our most important values, we are highly regarded by society in terms of sustainability and

compliance. This leads to increasing trust on the part of consumers, shareholders and other stakeholders in our products and our company, and also makes it easier for us to hire and retain talented human capital.

Contributions to the SDGs



Policies

We regard our value to Integrity as the starting point of compliance, and promote it as a foundation for earning the respect and trust of all stakeholders.

To ensure the greater efficacy of the Kao Business Conduct Guidelines (BCG) that embody Integrity, we are implementing activities focused on reducing serious compliance risks, and activities designed to create an open workplace atmosphere that allows discovered improprieties to be immediately reported to management and an appropriate response taken.

Framework

We have established the Compliance Committee, chaired by the Representative Director and Senior Managing Executive Officer, and comprised of representatives of relevant divisions and affiliated companies.

This committee meets every six months to review the following activities and devise promotional measures to mitigate serious compliance risks and ensure Integrity.

1. Discusses the establishment and revision of the Kao Business Conduct Guidelines (BCG) and other internal compliance-related guidelines.
2. Discusses the holding of educational and awareness-raising activities to promote the establishment of corporate ethics both inside and outside Japan.
3. Monitors the operation of the compliance hotlines and the responses to communications received via the compliance hotlines.

Necessary amendments to our regulations are also proposed and an annual activities report made to the Board of Directors.

The Compliance Committee has also installed a secretariat led by the Compliance Department. At the secretariat meeting held each month, members of the secretariat confirm and review the reasonableness of responses to inquiries made to hotlines both within and outside Japan. They also draft and implement plans for specific activities in accordance with decisions by the Compliance Committee.

In addition, a summary of the inquiries and communications received is reported to the

Management Committee on a quarterly basis, and related activities are reported to the Board of Directors each year. We monitor and evaluate these activities and continue to improve them using the PDCA (plan, do, check and act) cycle.

Audits and monitoring

In addition to internal audits, we monitor activities using a variety of formats and are strengthening compliance.

Annual confirmation

Once a year, we confirm the submission of reports to the Compliance Committee secretariat regarding matters pertinent to the Guidelines for Avoiding Conflicts of Interest and the Anti-Bribery Guidelines with respect to company officers and employees.

In addition, we verify the utilization status of the Anti-Bribery Checklist used when selecting new cross-border distributors and new intermediaries or renewing contracts with existing ones.

Internal Audits

Regular audits by Audit and Supervisory Board Members and an operations audit are conducted for all companies and divisions of the group, which include verifying conduct on compliance-related items based on guidelines related to entertaining, gift-giving and celebration and condolence packages.

Activities that involve listening to employees' opinions

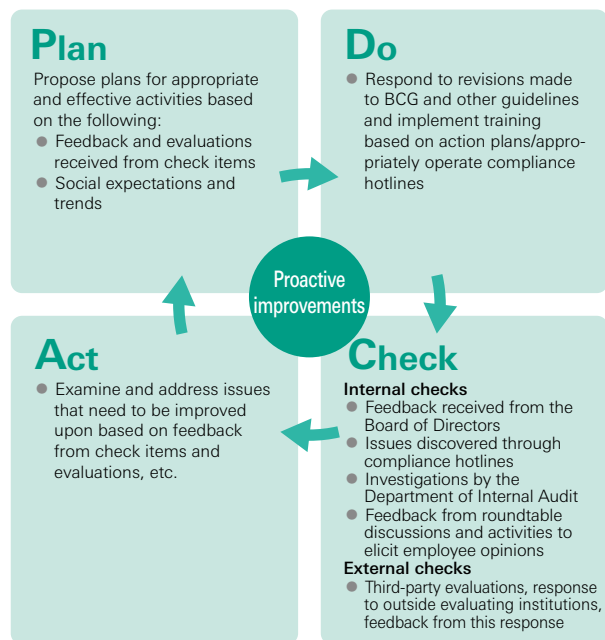
The Compliance Committee secretariat creates opportunities for dialogue with employees of Kao Group companies within and outside Japan when visiting them to conduct trainings and on other occasions. Comments concerning current compliance activities are received, along with requests and proposals for new activities.

Employee opinion survey

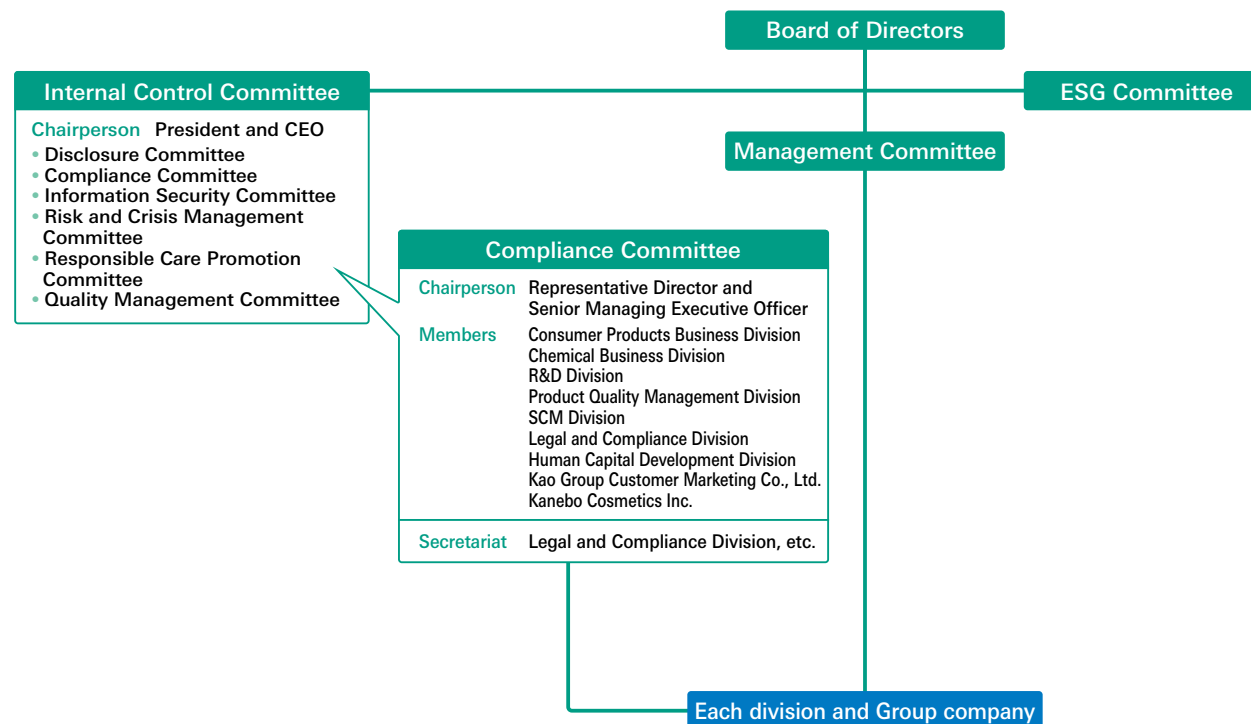
The group monitors the extent of compliance awareness among employees through the companywide opinion survey *Find*, which is conducted every other year.

A survey is also conducted every other year on specific behaviors, awareness and the extent of establishment of compliance.

Kao's Compliance Activities



Compliance promotion framework



* As of December 2018.

Collaboration with stakeholders

- In March 2018, the Senior Vice President of the Legal and Compliance Division gave a lecture on the group's use of compliance hotlines and future issues at a symposium on whistleblowing organized by the Tokyo San Bengoshikai, bar associations.

- In April 2018, the Senior Vice President of the Legal and Compliance Division participated as a panelist from the position of a corporate executive in a panel discussion on the topic of "effective countermeasures for the divergence of management and the workplace and the role of Audit & Supervisory Board Members" at the National Audit & Supervisory Board Members Conference organized by the Japan Audit & Supervisory Board Members Association.

- In December 2018, the Senior Vice President of the Legal and Compliance Division led a discussion on the topic of "how the General Counsel can lead compliance and ethics" at the Tokyo Executive Ethics and Compliance Forum organized by Ethisphere Institute, a U.S.-based corporate ethics think tank.

Mid- to long-term targets and performance

Mid- to long-term targets

1. Contribute to *Yoki-Monozukuri* through a commitment to Integrity and prevent incidents of damage.
2. Minimize damage by creating workplaces with an open atmosphere that allow improprieties to be reported at an early stage and the appropriate response to be taken.
3. Maximize utilization of human capital by ensuring that people's language and conduct are considerate of the other person's position and by creating workplaces in which all people are able to work on an equal standing.

Anticipated benefits from achieving Mid- to long-term targets

Damage minimization or profit increase

- Avoid incidents of loss due to improprieties and reduced trust in Kao products.
- Minimize damage by avoiding expanding or prolonging impacts by discovering improprieties at an early stage and taking an appropriate response.
- Realize high-quality outcomes more efficiently and retain, hire and fully utilize talented human capital by creating work-friendly workplaces for employees.

Effects on society

- By preventing improprieties and realizing higher quality outcomes, provide products and services through improved *Yoki-Monozukuri* including a focus on the environment.
- Maintain and improve the trust placed in us by stakeholders starting with shareholders and society.



Targets for 2019

- Amend the Kao Business Conduct Guidelines (BCG) aimed at achieving the SDGs, conduct related awareness-building activities and develop our legal compliance structure to ensure *Yoki-Monozukuri*.
- Hold seminars by top management to create workplaces that allow all people to work on an equal standing (hold seminars outside Japan in 2019).

Performance in 2018

1. Compliance risk reduction activities

Reorganize our legal compliance structure

We identified 245 laws and ordinances that apply to our business in Japan, and monitored implementation of our compliance promotion plan for 43 key laws and ordinances among the 245. By identifying applicable laws and ordinances and codifying our plan, we were able to increase general awareness for legal compliance among related staff as well as executive officers. In 2019, we will also conduct similar measures in countries and regions outside Japan.

Reduction of risk not covered by legal compliance activities

We identified social media risks and data falsification as risks not covered by our legal compliance activities. We designated the responsible divisions and built a structure to monitor the status of implementation.



→ p. 131 Our initiatives: Activities to reduce compliance risks

2. Activities to foster and establish compliance awareness

Review for amending the Kao Business Conduct Guidelines (BCG)

We have begun the process of revising the BCG to be more effective. Various departments exchanged views and opinions in the review, and the review process itself led to improved compliance awareness. Announcement of the new BCG is scheduled in 2019, and we will also hold briefings on the amended content.



→ p. 131 Our initiatives: Review for amending the Kao Business Conduct Guidelines (BCG)

Compliance education activities

- Held discussions on compliance risk at new manager trainings (approx. 420 people).
- Held compliance trainings in Japan for employees and temporary workers led by executive officers in their own divisions (approx. 11,000 people).
- Held compliance trainings linked to trainings on the Kao Way, our corporate philosophy, in Indonesia and Spain (total of approx. 150 people).
- Held compliance trainings for all employees in Singapore (total of approx. 150 people).
- Established October as Compliance Awareness Month as in past years, displayed Compliance Awareness Month posters and communicated other information.

In 2018, we reinvented our educational materials to increase the sense of ownership over compliance. In trainings conducted in Japan especially, we observed improved awareness among individual employees after having executive officers communicate messages firsthand while talking about specific cases of compliance in their own words.



→ p. 132 Our initiatives: Compliance education/ Compliance Awareness Month

3. Compliance promotion system development

- From 2018, we began reporting to the Management Committee four times a year concerning incidents requiring special attention.
- In June 2018, we changed the law firm entrusted with our internal compliance hotlines in Japan from our advising law firm to one without a potential conflict of interest.

The above moves are designed to reduce risk by detecting compliance-related problems at an early stage and resolving them, and have created a system more conducive to receiving reports.



→ p. 133 Our initiatives: Compliance hotlines

4. External evaluations

In 2018, we were again chosen for the World's Most Ethical Companies® designation, and received recognition from the Ethisphere Institute.



→ p. 133 Our initiatives: Thirteen consecutive years on the World's Most Ethical Companies® list

Our initiatives

Activities to reduce compliance risks

We reorganized our legal compliance structure in 2018 and conducted a survey of serious compliance risks not covered by our legal compliance activities to reduce serious compliance risks.

Legal compliance structural reorganization

We reorganized our legal compliance structure to place responsibility for legal compliance with executive officers.

Specifically, with the 2017 discovery of non-conformity with the requirements of Japan's Fire Service Act, the Legal Department led a survey of laws and ordinances that apply to our business in Japan. Some 245 laws and ordinances were identified, and we decided the managing divisions for promoting compliance with them. For 43 laws and ordinances of particular importance among the 245, we drafted an annual compliance promotion plan, required a report on its implementation, and monitored compliance promotion activities.

In 2019, we will comprehensively put our legal compliance structure in Japan into operation, and plan to implement our legal compliance structure outside Japan.

Reduction of risk not covered by legal compliance activities

As a result of conducting an internal risk survey, we

identified social media risks and data falsification as serious compliance risks not covered by our legal compliance activities.

For social media risks, we established a digital risk team in September, which has begun reviewing the risk scope and response that demand attention in our business activities. For data falsification risks, we reviewed work tasks to prevent falsified data in the R&D and SCM divisions and conducted awareness-building activities.

Review for amending the Kao Business Conduct Guidelines (BCG)

The Kao Business Conduct Guidelines (BCG) embodies Integrity, one of the core values of the Kao Way, our corporate philosophy. We began amending the items and content of the BCG in 2018 to make the Guidelines more comprehensive and effective.

In light of the incorporation of the SDGs in the revised Charter of Corporate Behavior of Keidanren (Japan Business Federation) in December 2017, we also focused on the SDGs in amending the BCG. In addition, we extensively reviewed the language to make it easier to understand. Various departments exchanged views and opinions in the review, and the review process itself led to improved compliance awareness.

Announcement of the new BCG is scheduled in 2019, and we will also hold briefings on the amended content.

Deployment of the BCG Casebook and other compliance-related rules

The Kao Business Conduct Guidelines Casebook, which covers possible scenarios relating to the BCG in a Q&A format, has been compiled in Japanese, English and 17 other languages.

In addition, the BCG explicitly prohibits giving and receiving of bribes regardless of the identity of the other party and bans facilitation payments, which are payments of small amounts made to individual civil servants. Making political donations is also prohibited in the BCG and in the Donation Guidelines. Moreover, the Kao Anti-Bribery Guidelines, which describe the approval procedures and rules for giving and receiving of entertainment and gifts and notification procedures relating to the invitation of government officials, have been adopted, including at Kao Group companies outside Japan.

Besides the measures noted above, we have also proceeded with adoption at Kao Group companies both within and outside Japan of the Kao Guidelines for Avoiding Conflicts of Interest, which require approval or notification corresponding to specific situations in which there is a risk of a conflict of interest through competition, transactions, loans, personal investments and so on with the Kao Group.

Compliance education

To deepen employee understanding of the BCG and other compliance-related rules and regulations, we hold classroom-based training for new employees, newly appointed managers, and Group company employees (including managers) outside Japan. In addition, a BCG refresher test is given every other year to check knowledge of BCG content.

In 2018, we reinvented our educational materials to increase the sense of ownership over compliance based on the compliance training conducted by the Compliance Department staff.

New manager trainings

We held discussions on compliance risks at new manager trainings in Japan, where new managers from various departments exchanged views on risk factors and prevention.

Many participants offered feedback such as, “Through the discussions, I was able to think deeply about the compliance risks that could occur in our workplaces and how to prevent them, and I want to put these ideas into practice back in my workplace.” (No. of participants: approx. 420)

Compliance trainings led by executive officers (Japan)

We held compliance trainings in Japan with executive officers serving as instructors for the purpose of having participants internalize Integrity and creating an open atmosphere in workplaces that allows improprieties to be reported at an early stage and appropriately dealt with.

The executive officers gave lectures on the importance of the first report when a compliance violation occurs, how to ensure your words and actions show consideration for the other party, and achieving an open atmosphere in workplaces by setting an example.

Having executive officers talk about these topics in their own words made compliance more immediate and accessible for employees. (No. of participants: approx. 11,000)

Lecture content and messages from executive officers (excerpts)

- The times are changing. Leaders must also change their awareness.
- If you are worried about something, do not hesitate to talk to the division leader about it.
- Brought up examples of cases that arose in their own divisions and what they did in response, and announced proposals to prevent recurrences.
- (To prevent harassment) Imagine that the person is a family member and reassess whether your words are appropriate.

Compliance training linked to the Kao Way

We held compliance training linked to training on the Kao Way, our corporate philosophy, in Indonesia and Spain. We held compliance training for all employees at Kao Group companies in Singapore. (No. of participants: total of approx. 300)

Compliance Awareness Month

At Kao, we have designated October as Compliance Awareness Month, with the aim of encouraging employees to view compliance as something that is directly relevant to them, and hold various activities to instill compliance awareness inside and outside Japan.

During Compliance Awareness Month in 2018, a message from the Compliance Committee chairperson was disseminated via the company intranet and displayed as posters. Posters with compliance messages were also created by regional presidents and presidents of individual companies outside Japan, and case studies were communicated.

This year, the message from the Compliance Committee chairperson was “Let’s create a friendly workplace for all by using warmhearted words!” We conducted activities to realize more efficient work tasks and work-style reforms by focusing on enhanced workplace communication.



The Compliance Awareness Month poster is designed and displayed in 19 languages

Compliance hotlines

Depending on the needs of each country and region, group companies have established and operate either both internal and external compliance hotlines or only external hotlines.

In operating the hotlines, after confirming the caller's needs, companies take steps to respect the individual's privacy and strive to the maximum extent possible to ensure that callers suffer no disadvantage as a result of their good-faith consultation. In principle, companies receive the caller's consent also when a third party needs to be involved. Anonymous inquiries are accepted, but callers are encouraged to identify themselves to facilitate proper investigation.

In 2018, there were 322 calls to the hotlines of the group, including companies outside Japan. About 70% of the calls were of a minor nature, which were ultimately resolved or closed through responses from the secretariat or in face-to-face consultations with the caller. The remaining 30% were resolved by measures such as warnings to the relevant persons based on investigations of the matters in question in face-to-face consultations with the relevant persons. Further breakdown of the reports received reveals that items related to harassment, including sexual and power harassment, abuse of authority and bullying, represented roughly 30% of the total, while items including those related to miscommunication at workplaces, working conditions and employment, represented around 40%. Together, these two categories comprised approximately 70% of calls. There was no particular correlation observed between the types of reports and the department, business function or location.

Kao Group in Japan

In Japan, we have established internal compliance hotlines operated by the Compliance Committee secretariat and external hotlines operated by outside lawyers and clinical psychologists. Internal hotlines and external hotlines

operated by lawyers accept reports and consultations not only from our employees but also from related parties including business partners. In June 2018, we changed the law firm for our compliance hotlines from our advising law firm to one without a conflict of interest so as to improve the neutrality of the lawyer-operated hotlines. We have updated and handed out help cards with hotline information printed on them, and displayed posters at Kao Transport & Logistics locations and contractor offices in our plants. As a result, we are receiving a rising number of calls to the hotlines.

Kao Group outside Japan

We set up the Integrity Line, operated by an outside service provider, at Kao Group companies outside Japan. The Integrity Line is able to receive calls 24 hours a day, 365 days a year in the home country language. Most Kao Group companies have established internal compliance hotlines in which the company's HR manager or other representative handles inquiries. In 2018, the Integrity Line was also set up at U.S.-based Oribe Hair Care, LLC (company manufacturing and selling products for professional salons) and Washing Systems, LLC (company manufacturing and selling commercial-use cleaning products), which have newly joined the Kao Group.

Response to compliance violations, and legal violations in 2018

We uphold a principle of disclosing violations of laws and regulations that occur in relation to the group's business operations.*

* However, in cases where there are legal or contractual confidentiality obligations, a risk of negatively impacting the public interest, the need to take privacy into consideration or other similar limiting factor, the violation may not be made public.

In 2018, there were no incidents of serious compliance infractions involving the group business operations. Also it

was verified that no political contributions were made in 2018. There were a total of 20 cases globally that resulted in persons leaving their positions (including resignation under instruction). These included cases involving fraudulent behavior such as theft and embezzlement, harassment, serious traffic violations, and other offenses. Most cases were at the level of individual employees, and none were serious enough to cause any major harm to the company's business operations. In response to these cases, we have taken efforts to thoroughly establish our core value of Integrity through internal educational activities.

Thirteen consecutive years on the World's Most Ethical Companies® list

In February 2019, Kao was selected for the list of the World's Most Ethical Companies 2019 by the U.S. think-tank Ethisphere Institute. We have been named to the list for 13 straight years since the award's inception in 2007. We are the only Japanese company, and the only manufacturer of fast-moving consumer goods and chemicals in the world to be honored for 13 consecutive years.

Selection of companies for the list is based on the evaluation of five factors: 1) Corporate Ethics and Compliance Program; 2) Corporate Citizenship and Responsibility; 3) Culture of Ethics; 4) Governance; and 5) Leadership, Innovation and Reputation.

This recognition shows that the spirit of integrity passed down from our founder continues to be implemented by all Kao Group members in day-to-day operations through practice of the Kao Way and the BCG.



* The names and logos of World's Most Ethical Companies® and Ethisphere are trademarks of Ethisphere LLC.

Kao's approach

We have formulated the Kao Human Rights Policy, which is based on the United Nations (UN) Guiding Principles on Business and Human Rights, and are implementing measures aimed at fostering respect for human rights in every aspect of our *Yoki-Monozukuri* processes.

Kao's creating value to address social issues

Social issues we are aware of

As the globalization of corporate activities advances and the supply chain expands, human rights risks such as forced labor are increasing. In addition, consideration for human rights is increasingly needed inside workplaces as employees, values and work styles become more diverse.

Kao's creating value

By collaborating with a diverse range of stakeholders to implement various measures that embody respect for human rights and endeavoring to prevent and mitigate human rights risks, we contribute to creating a cooperative society and achieving the Kao Way mission, which is "to strive for the wholehearted satisfaction and enrichment of the lives of people globally."

Risks related to realization of our vision by 2030

Interest in how companies address human rights is rising globally, and not demonstrating adequate consideration for human rights increases a reputational risk.

In our business activities, manufacturing products in environments with poor labor conditions such as

forced labor has the potential to create quality problems. In addition, if trust in us is damaged from human rights risks, it may adversely affect purchasing behavior, lower employee motivation and loyalty, negatively impact productivity and increase employee turnover.

Opportunities relating to realization of our vision by 2030

Respecting human rights and promoting fair purchasing activities invites consumer support for our corporate approach and helps build and maintain trustworthy relations with suppliers. Improved employee loyalty also leads to higher productivity.

Contributions to the SDGs



Policies

In 2015, we formulated and announced the Kao Human Rights Policy, which stipulates that we respect international norms relating to human rights, such as the International Bill of Human Rights, and that we will conduct human rights due diligence and human rights education for employees, working diligently to fulfill our responsibilities in regard to respecting human rights in every aspect of our operations.

The Kao Business Conduct Guidelines (BCG), which regulate conduct to ensure the realization of the Kao Way, clearly stipulate respect for human rights and the prohibition of child labor, human trafficking and all other forms of forced labor. In the supply chain also, our Policies for Procurement stipulate the need for purchasing operations to embody respect for human rights, and to contribute to the fulfillment of our corporate social responsibility. In addition, the Guidelines for Supplier's Assessment include suppliers' fulfillment of their corporate social responsibility as an assessment item, and note that suppliers are required to take measures to prevent forced labor, child labor and other illegal labor practices.

In 2005, we declared our support for the UN Global Compact, which defines ten principles in the four areas of human rights, labor, the environment and anti-corruption. And we also support for CGF's* Forced Labour Resolution and its Priority Industry Principles.

* CGF (The Consumer Goods Forum)

Global network of consumer goods retailers and manufacturers. We are participating as a member company.



- [Kao Human Rights Policy](http://www.kao.com/global/en/sustainability/declaration/humanrights/kao-humanrights/)
www.kao.com/global/en/sustainability/declaration/humanrights/kao-humanrights/
- [Kao Business Conduct Guidelines \(BCG\)](http://www.kao.com/global/en/about/policies/compliance/business-conduct-guideline/)
www.kao.com/global/en/about/policies/compliance/business-conduct-guideline/
- [Policies for Procurement](http://www.kao.com/global/en/sustainability/procurement/policy/)
www.kao.com/global/en/sustainability/procurement/policy/
- [Guidelines for Supplier's Assessment](http://www.kao.com/global/en/sustainability/procurement/supplier-guidelines/)
www.kao.com/global/en/sustainability/procurement/supplier-guidelines/

Framework

Reflecting the multi-faceted nature of human rights issues, we implement human rights related measures by having the Corporate Strategy Division, the Human Capital Development Division, the ESG Division, the Legal and Compliance Division, the Procurement Division and other divisions play a central role, discussing specific human rights initiatives at regular meetings held four times a year and liaising with relevant departments and Group companies inside and outside Japan. Measures are implemented under the responsibility of the Executive Officer in charge of the ESG Division, and are reported to the Management Committee and the Corporate Committee under it once a year.

Human rights problems potentially impact a wide range of stakeholders. We therefore assess what human rights risks exist for each type of stakeholder, and address them giving priority to those risks that would significantly impact our business activities if they were to manifest.

We designate employees and suppliers as our highest-priority stakeholders, and are conducting measures based on risk related surveys within the group and the Guidelines for Supplier's Assessment.

The ESG Division functions as the secretariat for matters relating to human rights due diligence within the group, and implements relevant measures in coordination with the Human Capital Development and the Legal and Compliance divisions. To ensure that our employees are able to report and consult on compliance related issues when necessary, internal and/or external compliance hotlines have been established in each group company.

With regard to human rights related measures targeting the supply chain, the Procurement Division, which is our point of contact for communication with suppliers, plays a central role in encouraging suppliers to take appropriate steps.

Education and promotion

We hold workshops throughout the world to deepen understanding for the Kao Business Conduct Guidelines (BCG), which set out our approach to ensuring respect for human rights among employees in all of our Group companies. We also provide classroom-based training for newly recruited employees and for newly appointed managers, as well as a refresher test once every other year for all employees.

In Japan, we conducted compliance training in 2018 with a core focus on preventing harassment in which executive officers served as instructors, for the purpose of creating an open organizational atmosphere facilitating early reporting even in the case of negative information. Our awareness-raising efforts related to promoting diversity also touch on harassment prevention.

In 2018, we provided information on "care harassment," meaning harassment of people who are working while providing care for family members, and LGBT issues.

Respect for human rights in advertising

We are conducting educational activities to ensure that personnel involved in the production of advertisements, product packaging, etc. are aware of human rights perspectives that apply to advertising.

Mid- to long-term targets and performance

Mid- to long-term targets

We are using human rights due diligence and awareness-raising activities to deepen understanding of stakeholders' human rights. We will continue to identify, prevent and mitigate human rights related risks in our business activities.

Anticipated benefits from achieving mid- to long-term targets

Cost reductions or profit increase

Once a human rights violation occurs, the company is exposed to direct litigation risk and forced to bear litigation expenses, collection expenses and other economic burden. There is also greater probability of severe damage to our company image, a lower reputation among consumers, weakened employee loyalty, and loss of trustworthy relations with suppliers.

Continuing to identify, prevent and mitigate human rights risks in our business activities not only avoids direct economic losses but also contributes to increasing opportunities for consumers to choose our products through their support for our corporate approach, reduces procurement risks by strengthening trust with suppliers, improves productivity from increased employee loyalty, and reduces hiring costs from lower employee turnover.

Impacts on society

Expanding company measures to ensure respect for human rights contributes to enhanced awareness for human rights in society as a whole. Our measures are one part of this. For example, deepening understanding among stakeholders enhances awareness for human rights in society as a whole, mitigates human rights problems such as forced labor, and can also prevent negative environmental impact by reducing indiscriminate development in developing countries.

Providing products made with consideration for human rights reduces the chances of consumers indirectly infringing on human rights and leads to less human rights violations in society as a whole.

Performance in 2018

Results

Internal

- Conducted a survey of the group companies using the Human Rights Checklist (100% response rate from surveyed companies).
- Conducted a survey of the group production sites (40 plants in total) using the Sedex*1 Self-Assessment Questionnaire (100% response rate from surveyed plants).
- In 2015, the "Act to make provision about slavery, servitude and forced or compulsory labour and about human trafficking, including provision for the protection of victims; to make provision for an Independent Anti-slavery Commissioner; and for connected purposes" (the "Modern Slavery Act 2015")*2 was enacted and came into effect in the U.K. A statement noting the measures taken by the group in relation to the Act has been posted on our website.

*1 Sedex (Supplier Ethical Data Exchange)

A large-scale global platform for the sharing and verification of information relating to labor standards, health and safety, environmental protection and business practices, aimed at promoting the adoption and maintenance of ethical business practices in global supply chains.

*2 Modern Slavery Act 2015

The Act requires for-profit groups and companies conducting business activities in the United Kingdom whose annual sales exceed a certain scale to produce and release annual statements about measures enacted to ensure that slave labor and human trafficking offenses have not been committed.



[→ Modern Slavery Act Statement](http://www.kao.com/global/en/sustainability/declaration/humanrights/modern-slavery-act-statement/)
www.kao.com/global/en/sustainability/declaration/humanrights/modern-slavery-act-statement/

Supply chain

- As in the previous year, suppliers were encouraged to register with Sedex.
The number of sites for which access rights with us have been established is 1,474 (as of the end of 2018).
- Risk assessments were conducted at sites for which access rights with us have been established by September 30, 2018.

Human rights awareness-raising activities

- Published an essay on human rights by the person in charge of the Procurement Division in the in-house magazine.
- Posted topics on human rights on the company intranet system (April: Highlighting of human rights related issues in advertising, December: Human rights benchmarking).
- Held in-house study seminar with an outside instructor (October: 40 participants from the Advertising Production Department, business divisions, Legal and Compliance Division, Procurement Division, Human Capital Development, Corporate Communications and ESG Division).
- Put in place a framework to facilitate self-checks in relation to verification of how the human rights perspective is presented in advertisements, product packaging, etc., and held discussions twice a month on incidents that are difficult to decide independently among members of business divisions, departments involved in producing advertisements, the Product Quality Management Division and the ESG Division.
- To promote understanding among employees of LGBT issues, we disseminate various types of information on relating to LGBT issues as part of our support for the dynamic engagement of diverse employees.



[→ p. 155 Corporate Culture > Diversity and inclusion](#)

Reviews of performance

In addition to assessing human rights due diligence at the group companies using the Human Rights Checklist, at production sites using the Sedex assessment, and at suppliers by encouraging them to register with Sedex, in 2018 we began measures for outsourcing partners and broadly advanced efforts to identify, prevent and mitigate human rights risks in our business activities, which is one of our mid- to long-term targets.

Our initiatives

Human rights due diligence process

We are making efforts to investigate and identify human rights risks involving the group, including forced labor, workplace labor conditions and discrimination.

1. Efforts in the group

Every year, we perform a risk assessment targeting all of our business locations throughout the world. With respect to production sites, we make effective use of Sedex, a global corporate ethics information sharing platform. For other Kao Group companies besides the production sites, a Human Rights Checklist was compiled, which these companies are required to complete.

In 2018, a total of 40 production sites completed the Sedex Self-Assessment Questionnaire. For other Kao Group companies, a total of 50 Kao Group companies completed and returned the Human Rights Checklist. In both cases, there was a 100% completion and return rate. The results obtained did not show any human rights related risks at either our production sites or our group companies. There are therefore no cases of improvements being implemented as a result of human rights due diligence.

2. Efforts in the supply chain

We make use of a variety of opportunities and methods to communicate with suppliers, endeavoring to ensure that suppliers understand our policies and ethical standards.

New clauses relating to concern for the environment and for human rights added to standard contract with suppliers

In 2012, new clauses relating to concern for the environment and for human rights were added to the master agreement that we sign with suppliers. In principle, this master agreement is used when signing contracts with new suppliers or renewing existing contracts.

Request for self-assessment and monitoring

Since 2008, suppliers have been required to perform self-assessments of their conformity with the Guidelines for Supplier's Assessment, which we then monitor. In the case of suppliers whose self-assessment shows a failure to meet the required standards, our personnel visit the supplier so that the

supplier can share information about the problems, and so that we can collaborate on achieving improvements.

Since joining Sedex in 2014, we have held presentations to explain Sedex to suppliers, and we continue to request that suppliers join Sedex, respond to Sedex questionnaires, and set up data access rights. The number of sites for which data access rights have been established so far is 1,474.

Initiatives for outsourcing partners

Expanding our human rights related measures to other partners besides suppliers, we began new human rights due diligence efforts at production, logistics and waste disposal outsourcing partners in 2018. As with suppliers, we explain our policies and request their cooperation with responding to questionnaires. We request that they register with Sedex or respond to the self-assessment sheet. In 2019, we will verify their responses in stages, and in the case of discovering human rights related risks, share our concerns with them and collaborate to effect improvements.

Kao's approach

Kao conducts fair and impartial procurement activities based on legal and ethical principles. While aiming to contribute to the realization of a society with sustainable development, we fulfill our corporate responsibilities with consideration for resource protection, environmental conservation, safety and human rights.

Kao's creating value to address social issues

Social issues we are aware of

In procuring raw materials for products, environmental destruction and loss of biodiversity due to indiscriminate development at the producing area has become a serious issue.

Protecting the human rights of laborers, safety and hygiene management, the forced relocation of local residents from producing areas, and damage to health are also pressing issues in our supply chain, which provides raw materials and services.

Kao's creating value

Our business is largely dependent on natural capital such as palm oil, paper and pulp. Aiming to contribute to realizing a society with sustainable development, we are fulfilling our corporate social responsibility with extensive environmental considerations including resource conservation, global warming prevention and biodiversity preservation, as well as social considerations including safety, sanitation, labor conditions and human rights.

Risks related to realization of our vision by 2030

Procurement risks include supply risks relating to the stable procurement of raw materials and other goods, and reputational risks, which have the potential to manifest in the event of not appropriately responding to social issues.

Although we have taken measures such as drafting BCP for supply risks, addressing reputational risks in terms of social and environmental issues has taken on greater importance in recent years.

Opportunities related to realization of our vision by 2030

To appropriately address the aforementioned risks, we are conducting human rights due diligence based on the Kao Human Rights Policy, and supplier risk assessments based on the Guidelines for Supplier's Assessment for social issues, and promoting procurement of palm oil, paper and pulp based on the Guidelines for Sustainable Procurement of Raw Materials for environmental issues. We believe that doing this encourages consumers to support us and helps sustain positive relationships with suppliers and the stable supply of raw materials, which in turn leads to company growth and increased corporate value.

Contributions to the SDGs



Policies

We have formulated Guidelines for Supplier's Assessment and Guidelines for Sustainable Procurement of Raw Materials to facilitate the practical implementation of procurement activities in accordance with our Policies for Procurement.

We conduct procurement activities based on our Guidelines for Supplier's Assessment, which position suppliers as an essential partner in *Yoki-Monozukuri*. In our procurement activities, we give priority to those suppliers that place importance on social responsibilities, including compliance with laws, regulations and social norms, protection of human rights, assurance of health and safety and fair trade, and to those suppliers that collaborate fully on environmental issues such as the environmental management system that we consider to be important. We also give priority to procurement of raw materials and packaging that give due consideration to environmental concerns.

Our standard contract with suppliers clarifies provisions concerning the aforementioned issues including the

environment, human rights and labor.

We are also pursuing sustainable procurement based on the Guidelines for Sustainable Procurement of Raw Materials, which takes into account environmental problems including global warming and the loss of biodiversity as well as resource constraints, human rights and other pertinent issues. In addition, we recognize that our business depends on natural capital, and we commit to zero deforestation at the source in our procurement of raw materials including palm oil and paper. Over the medium and long term, we will be taking measures to reduce the amount of raw materials that needs to be used, and other measures to switch over to the use of non-food biomass sources such as algae, striving to promote sustainable and responsible procurement that gives due consideration to the ethical issues that have been thrown into relief by the process of globalization.



→ Guidelines for Supplier's Assessment
www.kao.com/global/en/sustainability/procurement/supplier-guidelines/

→ Guidelines for Sustainable Procurement of Raw Materials
www.kao.com/global/en/sustainability/procurement/raw-materials-guidelines/

Framework

The Procurement Division formulates strategy to conduct sustainable and responsible procurement. It has set up the Sustainability Group in the Planning Division and the Sustainable and Responsible Procurement Panel, which meets five times a year.

Under this strategy, the Raw Materials Division and the

Packaging Materials Division conduct procurement in accordance with the Guidelines for Sustainable Procurement of Raw Materials. Meanwhile, the Indirect Materials & Services Division conducts green purchasing of office and other supplies, and the Machinery & Equipment Division is introducing environmentally friendly equipment and fixtures.

The strategy and activities of the Procurement Division are reported to the Board of Directors via reports to the Management Committee.

The Global Procurement Meeting (see right) is held once a year.

Education and promotion

Employee training and awareness-raising (Japan)

We educate new Procurement Division employees in our basic approach to procurement, which includes fairness and equity, adherence to laws and ethics and social responsibility. Through such education, we strive to encourage our employees to understand global social issues such as human rights and labor, which are fundamental to the United Nations Global Compact (UNGC) and ISO 26000 principles.

In 2018, nine employees newly assigned to the Procurement Division received education in our basic approach to procurement.

Promoting certification testing (Japan)

With the aim of educating all Procurement Division employees in the relationship between business operations, society and the environment and of encouraging them to modify their behavior accordingly, Procurement Division employees have been encouraged to take the Certification

Test for Environmental Specialists® (Eco Test®*1), the Examination of Compliance Proficiency for Practical Business (ECPBP)*2 and the Japan Business Law Examination®*3.

In 2018, the pass rates for these examinations for Procurement Division employees were 77% for the Eco Test, 69% for the ECPBP and 73% for the Japan Business Law Examination.

Education through e-learning (Global)

We are building an educational program for sustainability based on e-learning for all employees of the Procurement Division. We will begin implementing this program in 2019 for the purpose of having these employees acquire the knowledge required to engage in sustainable and responsible procurement activities. We aim to have all employees take the program in 2019.

Global Procurement Meeting (Global)

The Global Procurement Meeting, which is attended by procurement managers from our affiliates, is held once a year. The Meeting provides a venue for education and verification regarding the group's procurement policy and sustainable, responsible procurement.

*1 Eco Test®

This test promotes an environmentally and economically sustainable society.

*2 ECPBP®

This test views compliance as fulfilling social expectations which lies behind laws and regulations, and it aims to cultivate compliance skills that embody an awareness of the social expectations that underpin compliance-related laws and regulations, and a systematic understanding of the laws and regulations that are particularly important for business enterprises.

*3 Japan Business Law Examination®

This test aims to have people acquire practical legal knowledge that forms the foundation of legal compliance competency indispensable in business.

Mid- to long-term targets and performance

2020 mid-term targets

1. Promoting the sustainable procurement of raw materials

Procurement of certified raw materials

With the goal of realizing zero deforestation, we are aiming to switch to procuring palm oil, paper and pulp from sustainable sources by 2020.

With regard to procurement of palm oil and palm kernel oil, besides joining the RSPO*¹ and promoting the obtainment of SCCS*² certification and the procurement of certified sustainable palm oil, we are also aiming to confirm zero deforestation in the producing areas and 100% procurement of palm oil and palm kernel oil traceable to the source by 2020.

Regarding procurement of paper and pulp, we are aiming to ensure that, by 2020, all paper, pulp and packaging materials used in our products, and all paper used in the offices, are either recycled paper or paper from a sustainable source. In particular, in the case of pulp, by 2020 we aim to purchase only pulp that has traceability back to the area where the timber was logged.

Sustainable sourcing of natural plant resources

We recognize that indiscriminate harvesting of natural plant resources has led to their depletion and resource plundering, and are continuing to diversify sourcing routes and to convert natural plants to artificially cultivated materials, giving due consideration to the natural environment and the community in the producing areas.

2. Human rights initiatives

We established the Kao Human Rights Policy in 2015 to address various risks associated with human rights issues. In addition to our own activities, we also request that our suppliers' activities embody respect for human rights based on the Guidelines for Supplier's Assessment, and we conduct human rights due diligence accordingly.

To conduct this risk assessment, in 2014 we joined Sedex, a platform for sharing information on ethical practices by global companies. We have been also encouraging our suppliers to join Sedex. By 2020, we aim to achieve a 70% rate of Sedex participation (for suppliers in Japan, on a purchasing value basis).

Starting from 2017, we have also implemented supplier risk assessment using Sedex.

3. Green procurement

With regard to purchasing of indirect materials such as stationery and office supplies, in line with the Ministry of the Environment's calls to implement green procurement, we have formulated Green Procurement Standards, which give priority to purchasing environmentally conscious products.

We are also pursuing the introduction of environmentally friendly equipment and fixtures such as LED lighting, and signing contracts with electric power companies that have low CO₂ emissions factors.

*1 RSPO (Roundtable on Sustainable Palm Oil)

A roundtable group to promote the production and use of sustainable palm oil.
<https://www.rspo.org/>

*2 SCCS (Supply Chain Certification System)

A supply chain system created for the purpose of producing, selling and delivering products to customers using sustainable palm oil harvested at plantations certified by the RSPO that meet rigorous standards for biodiversity preservation.

Anticipated benefits from achieving mid- to long-term targets

Cost reductions or profit increase

Reduced costs of addressing criticism from NGOs and NPOs, improved brand image, improved social credibility.

Impacts on society

Contributions to the sustainability of the world through raw materials procurement.

Performance in 2018

Performance

1. Promoting the sustainable procurement of raw materials

Procurement of certified raw materials

- Palm oil and palm kernel oil procurement
Confirmation of traceability to the palm oil mill based on supplier information: Approximately 98% completed in purchased amount
Palm kernel oil mill verification by third-party organizations: 4 mills that are representative of palm kernel oil mills in their respective regions
- Paper and pulp procurement*1
100% confirmation of traceability
Of this, 86% ratio of certified paper/pulp materials*2 (as of December 2018)

*1 Covers paper/pulp used in Kao products (excludes some products).

*2 Calculated based on the ratio of certified materials as of December 2018 and the annual procurement amount for 2018.



→ p. 143 Our initiatives: Initiatives toward sustainable procurement of palm oil and palm kernel oil

→ p. 145 Our initiatives: Initiatives toward sustainable procurement of paper and pulp

- Sustainable sourcing of natural plant resources
Glycyrrhizinate derivatives used in cosmetics and quasi-drug products are produced from glycyrrhiza (licorice root), a leguminous plant. Starting from 2016, we have been switching from wild glycyrrhiza to glycyrrhizinate derivatives produced from cultivated glycyrrhiza in specified plantations to achieve biodiversity preservation and sustainable use.

2. Human rights initiatives

We have been conducting assessments based on Sedex since 2017. We expanded these assessments in 2018 to cover all of our global business and added new evaluation standards.

- Overall evaluation of supplier risk assessment based on Sedex (as of September 2018): S evaluation: 24%, A evaluation: 40%



→ p. 145 Our initiatives: Using Sedex in supplier monitoring

3. Green procurement

The percentage of our total procurement conforming to the Green Procurement Standards in 2018 was 87%.

Reviews of performance

Traceability to the palm oil mill has almost reached our target. For derivative products whose traceability to the palm oil mill cannot be confirmed, we take supplementary measures such as purchasing RSPO-certified raw materials.

Regarding palm oil mills determined to need observation in our risk assessment, we are conducting on-site visits in stages.

Confirming traceability to the production area (palm plantation) is a major challenge. There are a massive number of palm plantations including small-scale farmers. Confirming this traceability is not feasible, so we have begun exploring ways to use external initiatives.

Traceability to the paper and pulp production area has almost reached our 2020 target. We will continue to introduce certified products for small-scale suppliers and encourage confirmation of sustainability.

Collaboration with stakeholders

Sustainable procurement

We are promoting sustainable procurement in two ways: the purchasing of palm oil and paper and pulp products certified as sustainably procured, and confirming traceability. We have begun procurement of certified palm oil and certified paper by requesting that our suppliers in Japan obtain certifications.

To confirm traceability, we are conducting verifications and risk assessments by third-party organizations on information of the raw materials supply chain.

Partnering with our suppliers

We are strengthening coordination with our suppliers through various initiatives including Sedex, vendor summits, quality improvement meetings, CSR self-assessment monitoring, and the CDP Supply Chain Program, as we develop our global procurement activities.

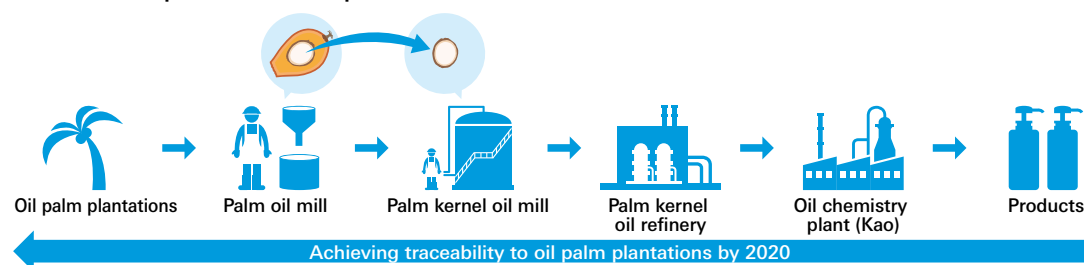
Our initiatives

Initiatives toward sustainable procurement of palm oil and palm kernel oil

We implement sustainable raw materials procurement with respect to palm oil and palm kernel oil, which are key raw materials for Kao, in accordance with our Guidelines for Sustainable Procurement of Raw Materials.

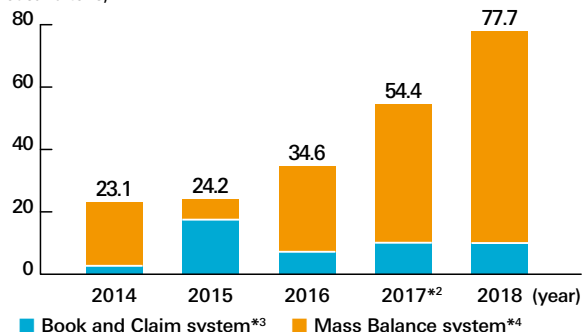
We are also an RSPO member, and are working to create a traceable supply chain for palm oil.

Palm oil and palm kernel oil procurement



Certified palm oil purchases*¹ (Kao Group)

(thousand tons)



*1 Total of palm oil, palm kernel oil and their derivatives.

*2 Some data have been revised and figures for 2017 have been changed.

*3 Book and Claim system
RSPO-certified palm oil credit trading system. By purchasing "certification credits" issued in proportion to the amount of palm oil produced and registered by plantations certified by the RSPO, users of palm oil are considered to have purchased the amount of certified palm oil corresponding to the amount of credits. This system encourages plantations to produce certified oil.

*4 Mass Balance system
A certification system that permits mixing of RSPO-certified palm oil with non-certified palm oil.

Sustainable Palm Oil Procurement Guidelines targets and 2018 performance

In the procurement of palm oil and palm kernel oil, we have committed to considerations relating to biodiversity conservation and support for zero deforestation, and have set four goals toward their realization.

Targets	2018 results
① By the end of 2015, purchase only sustainable palm oil traceable to the mill for use in Kao Group consumer products.	Mapped palm kernel oil mills with confirmed traceability and released the map on our website
② By 2020, adequately confirm zero deforestation at the source through cooperation with plantations, suppliers (mills and refineries) and third-party organizations. In addition, we will not take part in procurement activities that use high conservation value (HCV* ¹) forests, high carbon stock (HCS* ²) forests or peatlands.	On-site investigations of palm kernel oil mills determined to need observation in risk assessments by third-party organizations conducted in 2017: 2 mills Verified supplier information for 5 mills
③ By 2020, purchase only sustainably sourced palm oil that is traceable to the plantation for use in Kao Group consumer products.	Confirmation of traceability to the palm oil mill based on supplier information: Approximately 98% completed in purchased amount Mapped palm oil mills with confirmed traceability and released the map on our website Palm kernel oil mill verification by third-party organizations: 4 mills that are representative of palm kernel oil mills in their respective regions Conducted a pilot Bluenumber survey for small-scale agricultural producers that supply two palm oil mills
④ By 2020, work to obtain RSPO SCCS certification of Kao Group manufacturing sites in order to build a traceable supply chain for the group.	Number of RSPO SCCS certifications obtained: We have obtained RSPO SCCS certification for 35 sites globally

*1 HCV (High Conservation Value)

*2 HCS (High Carbon Stock)

Traceability progress of palm kernel oil

Scope	Specific activities	Progress							Results
[Quaternary suppliers] Small-scale agricultural producers	Exploring methods to confirm traceability	2018	2018						2018: Conducted a pilot Bluenumber survey for small-scale agricultural producers that supply two palm oil mills
[Tertiary suppliers] Palm oil mills (862 mills)	On-site investigation of high-risk mills	2017 2018	2018	(2018)	(2018)				2017: Conducted 1 on-site mill investigation ⇒ No deforestation problems found. Requested management system improvements 2018: Conducted 2 on-site mill investigations (2018): Verified supplier information for 5 mills
	Risk mapping Identification of high-risk mills	2016	2017	2017	2017		2017		2016: Identified 6 high-risk mills 2017: Identified 83 high-risk mills
[Secondary suppliers] Palm kernel oil mills (90 mills)	Verified information on palm oil mills	2017	2017	2017 2018	2017	2017		2018	2017: Conducted third-party verification of 7 mills that are representative of palm kernel oil mills in their respective regions 2018: Conducted third-party verification of 4 mills that are representative of palm kernel oil mills in their respective regions
[Primary suppliers] Palm kernel oil refineries (7 companies)	Verified information on palm kernel oil mills	2016	2016	2016	2017	2017			Conducted third-party verification of primary suppliers
		Co. A	Co. B	Co. C	Co. D	Co. E	Co. F	Co. G	2017: Collected information on palm kernel oil mills, palm oil mills

Traceability to small oil palm farmers

In 2017, we joined the Bluenumber*1 Initiative with the aim of helping to ensure traceability and transparency with respect to palm oil procurement. With regard to palm oil, we encourage the registration of information relating to oil palm plantations, palm oil mills, palm kernel oil mills and palm oil refineries, as well as the characteristics of their workers, the production locations, the products, and the details of the production activities, so that this information can be used to confirm traceability. We conducted a pilot study in 2018 and verified the efficacy of the system. On the other hand, this study also revealed issues with its deployment to small-scale palm plantations. In September 2018, we joined SUSTAIN*2 as a founding member.

We are collaborating with other participating companies and the NPO/NGO that is the administrative organization to be able to effectively use this system to establish traceability to small-scale palm farmers.

*1 Bluenumber
The Bluenumber Initiative was launched at the U.N. Sustainable

Development Summit on September 29, 2015.

The aim of the initiative is to promote the participation of workers, producers and inhabitants of rural communities in the digital economy.

*2 SUSTAIN (Sustainability Assurance & Innovation Alliance)
An initiative that uses blockchain technology to have actors in the palm oil industry share supply chain information.

Dialogue with small oil palm farmers

We joined in the Stakeholder Engagement (SHE) Programme conducted by Caux Round Table Japan (CRT Japan) in Malaysia and Indonesia and visited small oil palm farmers and to hold dialogue with them. In Indonesia, we participated in a meeting with local NGOs to discuss efforts to address environmental and human rights issues, and received information about the situation at palm plantations, the issues they face and activities aimed at resolving them. We are continuing our efforts to establish a sustainable palm oil supply chain. We will also continue dialogue to address the issues faced by small-scale palm plantations and endeavor to resolve these issues together with stakeholders.



→ Sustainability topics: Kao Holds Dialogue with Small Oil Palm Farmers as Part of Efforts to Establish a Sustainable Palm Oil Supply Chain
www.kao.com/global/en/sustainability/topics/sustainability-20180911-001/

Response to suspension of RSPO certification for the IOI Group

RSPO suspended its certification in 2016 over complaints about forest development in Ketapang, Indonesia. We suspended purchases of RSPO-certified products from IOI Group until improvements were confirmed through objective verification by the third party designated by RSPO. We continued to engage in dialogue with IOI Group even during our suspension of purchasing its certified products, and have confirmed its improvement process. In consideration also of the strong evaluation of IOI Group's supply chain transparency from other outside groups, we have resumed purchases of certified products from IOI Group. RSPO has also reported that it has concluded its complaint procedure through a complaint panel (council).

Initiatives toward sustainable procurement of paper and pulp

We are pursuing procurement of sustainable paper and pulp raw materials based on our Guidelines for Sustainable Procurement of Raw Materials.

Regarding the adoption of FSC-certified paper, we began using the paper for our product containers and packaging in 2013. In 2016 we became the first company in Japan to start using FSC-certified corrugated paper.

As of December 2018, the ratio of certified paper/pulp materials* (FSC, PEFC or other certification) among our paper and pulp products was 86%.

In July 2018, we jointly announced the Forest Stewardship Council Certified Procurement Declaration together with six other companies in Japan.

* Calculated based on the ratio of certified materials as of December 2018 and the annual procurement amount for 2018. Covers paper/pulp used in our products (excludes some products).



→ News release: Kao Announces the Forest Stewardship Council Certified Procurement Declaration in Collaboration with Six Japanese Companies
www.kao.com/global/en/news/2018/20180823-001/

Sustainable Pulp and Paper Procurement Guidelines targets and 2018 performance

We have committed to including considerations for biodiversity preservation and our support for zero deforestation in paper and pulp procurement.

Targets	2018 results	Rate of achievement (%) of the 2020 target
By 2020, we will purchase only recycled paper and paper produced with due consideration for sustainability for the paper and pulp used in Kao Group products, packaging materials and office paper. When using pulp other than waste pulp (virgin pulp), we will purchase only pulp that is traceable to the source, and confirm zero deforestation at producers of wood materials through cooperation with suppliers and third-party organizations.	Traceable paper and pulp: 100% (certified paper and pulp: 86%) In July 2018, we jointly announced the Forest Stewardship Council Certified Procurement Declaration together with six other companies in Japan.	100% -

Using Sedex in supplier monitoring

We use Sedex in confirming compliance with the Guidelines for Supplier's Assessment, which define initiatives in such areas as the environment, safety, conformance with laws and social norms, and human rights and labor problems, and in risk assessments. We request that suppliers join Sedex, respond to Sedex questionnaires, and set up data access rights.

The number of sites for which data access rights have been established worldwide as of the end of 2018 is 1,474. Within Japan, data access rights have been established for 503 sites, which represent 62% of overall procurement value. In 2018, we conducted risk assessments using the Sedex assessment tool for suppliers that have established

access rights with Kao (as of September 2018).

We gave back the results of our assessment to the suppliers. We will request revisions to items that require improvement so that the suppliers can receive an overall evaluation of A or better.

For suppliers in particular that receive an overall evaluation of B and have a Sedex risk evaluation of "high," we visited them to share the issues that need addressing and requested that they conduct improvement measures.

For suppliers who have difficulty joining Sedex, we also use our original survey form as an evaluation tool to supplement Sedex. We have fully revised the items involving confirmation of corporate social responsibility such as compliance, human rights and business practices, as well as items involving confirmation of environmental protection such as environmental policies, environmental objectives and various categories of environmental management, including pollution prevention (air, water, etc.), and began using this with some suppliers in 2018.

When beginning to use a new supplier, we also conduct an equivalent assessment.

Results of 2018 supplier risk assessments based on Sedex

Overall evaluation	SAQ response rate*1	Sedex risk assessment*2	Kao evaluation	Percentage
S	80% or more	Low	Excellent	24%
A	80% or more	Low	Good	40%
B	80% or more	Medium or High	Needs improvement	14%
C *3	Less than 80%	-	Needs response	12%
-*4	-	-	-	10%

*1 Response rate to Sedex self-assessment questionnaire for suppliers.

*2 Evaluation using the Sedex assessment tool that uses three levels (low, medium, high) of potential risk manifestation.

*3 SAQ without responses are evaluated as high risk, so all cases of a SAQ response rate of less than 80% uniformly receive a C evaluation.

*4 Not evaluated due to inaccessible response results.

Kao vendor summits

We hold vendor summits to provide a venue for sharing information and exchanging opinions with suppliers within and outside Japan. Each year, a specific theme is chosen for the vendor summits, and we seek to foster communication in regard to that theme.

At the Japan vendor summit in 2018, we asked suppliers to actively cooperate with the CDP Supply Chain Program*1, which is an initiative for sustainable and responsible procurement, and to join Sedex. In 2016, we began to present awards to suppliers for excellence in the areas of Quality, Cost, Delivery, Information Sharing, and Company Management and Sustainability.

In 2018, Mr. Hiroshi Ishida of Caux Round Table Japan (CRT Japan) gave a lecture on Business and Human Rights, where he discussed changes in the environment around companies and the significance of CSR initiatives among other topics.

Number of companies that participated in the vendor summits (Unit: firms)

	Held in Japan	Held outside Japan	Total
2014	183	233	416
2015	214	285	499
2016	246	279	525
2017	245	258	503
2018	243	230	473

CDP Supply Chain Program

We recognize risks associated with sustainable development based on resource constraints, loss of biodiversity, global warming and other environmental problems as well as problems such as human rights, and are working to sustainably procure raw materials. These initiatives need to be managed across the entire supply chain. With regard to climate change and water, we are participating in the CDP Supply Chain Program*1 and asking our key suppliers to disclose relevant information. In 2018, we began requesting that suppliers disclose information on forests as well, and expanded the scope of suppliers of Kao group companies outside Japan. We held informational briefings for suppliers in Japan, with 153 firms attending.

In 2018, the supplier response rate was 78% in regard to climate change, 76% in regard to water, and 91% in regard to forests. In regard to forests, we are conducting risk assessments by providing information to the CDP Forest Program*2.

*1 CDP (Carbon Disclosure Project) Supply Chain Program
CDP is an international NPO (with its headquarters in London) that is sponsored by institutional investors. CDP implements various activities to encourage business enterprises, etc. to disclose information relating to climate change, water resource use and forest resource use. The CDP Supply Chain Program is an initiative in which participating enterprises ask the firms that make up their supply chain to disclose information relating to climate change, water resource use and forest resource use via the CDP platform.

*2 CDP Forest Program
A CDP initiative in which enterprises are asked to disclose information regarding forest resource management and usage status, etc.

Conducting the supplier satisfaction survey

We conduct supplier satisfaction surveys every three years in order to ensure that we are carrying out procurement activities fairly and equitably. Most recently, we conducted a supplier satisfaction survey in 2016 and received valuable feedback from suppliers on topics including vendor selection, quality, ordering, service and communication. In terms of ordering, we confirmed there were issues including rush deliveries and request to change order amounts as well as response to proposals and consultations.

To address these issues, the Procurement Division is currently working to spread awareness of the Kao Compliance Hotlines, and building a new supply and demand process coordinated with the SCM Division and the Information Technology Division.

Comments from Institute of Public & Environmental Affairs (IPE)



MA Jun

Director
Institute of Public &
Environmental Affairs (IPE)

In its 2018 Sustainability Data Book, the Kao Group (Kao) demonstrates commendable efforts to integrate the United Nations Sustainable Development Goals (UN SDGs) throughout its business operations.

Characteristic to Kao's approach is a working relationship between the design, sourcing, and sustainability departments, which is exemplified by values-driven procurement for palm oil, pulp, and paper. More specifically, Kao has committed to source 100-percent of these materials from certified sustainable sources by 2020 to reduce deforestation and its contributions to climate change. This initiative follows a detailed traceability chart that monitors every phase of procurement, from oil palm plantations to mill, refineries, and chemical plants.

Such detailed product tracing supports Kao's commitment to socially responsible business; however, to meet the SDGs of responsible production, Kao is recommended to expand its traceability and sourcing model beyond the present scope.

This aim requires developing a comprehensive supplier list that includes all tiers of the value chain. By

mapping the upstream supply chain, Kao may identify high environmental impact suppliers and evaluate whether they pose risks to its operations due to environmental noncompliance, an analysis that enables the company to respond efficiently to priority areas and field issues as they arise.

To address resource consumption, Kao has practiced meaningful supplier engagement through studies on how to minimize water use and collaboration to reduce waste in manufacturing and packaging. Kao has also used the Institute of Public & Environmental Affairs (IPE) database to screen its suppliers in China and put pressure on factories found in violation of legal standards to take corrective action. In light of prior success, this same process of supplier engagement may be scaled up to include all cases of pollution or noncompliance to clean up any remaining harmful practices throughout the supply chain.

Kao might also host trainings to support suppliers through rectification, or offer incentives for good environmental performance, in the interest of long-term partnerships.

Kao presents thorough environmental awareness by completing the voluntary Japan Pollutant Release and Transfer Registry (PRTR), which documents the use and transfer of pollutants in air emissions, wastewater, or solid waste. This measuring and disclosing practice may also be expanded to suppliers outside of Japan, which will provide consumers and investors with full confidence in the social responsibility of Kao as a brand fully aligned with the SDGs. Additionally, tracking and publishing this data from the supply chain verifies year-on-year reductions within the company's total environmental footprint, the majority of which derives

from the product manufacturing process.

The Kao Group is undoubtedly an environmental leader in the household and personal care industry, and it is because of these foundational efforts that the recommendations above reach for such a high degree of supply chain management and transparency. Looking forward, Kao is recommended to focus more on its supply chain, expand green procurement to all tiers and invested companies, work with suppliers toward regulatory compliance, and practice greater corporate accountability through information disclosure.

As a leader, Kao is uniquely placed to influence others in the industry; by extending this reach beyond Japan, and educating consumers, investors, and other stakeholders on the benefits of green procurement up and down the supply chain, Kao has the opportunity to change the way today's businesses practice sustainable development.

Kao's approach

Employees are a company's most important asset. Kao strives to create an environment and corporate culture in which both individuals and the company can grow together through maximizing each employee's potential and making a positive contribution to society.

Kao's creating value to address social issues

Social issues we are aware of

In the midst of trends such as the digital revolution symbolized by coexistence with AI, ESG management, and the advent of a super-aged society in Japan, the optimal forms of people's lives, social systems, and jobs are undergoing major changes.

In conjunction with these changes, employment and human capital management are also entering a period of innovation. Human capital strategies that anticipate these types of changes are important for the continued growth of a company.

Kao's creating value

We are expanding our support measures in relation to childcare, nursing care and long-term care needs, and we are implementing measures to promote empowerment of female employees, promote normalization (expand employment and utilization of persons with disabilities), expand the continued employment and active utilization of older employees who have already passed retirement age, promote more flexible work styles, and raise productivity by enhancing efficiency and changing attitudes. Furthermore, reflecting our awareness of the fact that employees' health represents not only a key foundation of each employee's life but also an

important asset for the company and a fundamental source of corporate growth, we are providing active support to encourage employees to look after their own health properly. We are therefore making a global effort to promote diversity and inclusion so that all employees are able to demonstrate their different characteristics and capabilities to the maximum possible extent.

We are strengthening and promoting, on a global basis, measures to cultivate human talent that can make a wide-ranging positive contribution to society through corporate activity.

Risks related to realization of our vision by 2030

It may be difficult to secure outstanding human resources as a result of the failure to systematically implement human resource hiring, development, and assignment in a manner that anticipates major environmental changes, and this poses a risk of business stagnation.

Opportunities relating to realization of our vision by 2030

By reinforcing the development of next-generation leaders who can anticipate changes, conducting business that enables each member of a diverse

workforce to perform their work in a healthy and enthusiastic manner, and achieving growth by performing work and contributing to society, we will become a company with a global presence that undergoes continuous growth.

Contributions to the SDGs



Policies

The efforts of each and every employee to pursue individual achievements by exercising his or her own abilities and characteristics to the utmost can contribute to the success of the employer. Based on this concept, we aim to create such an environment and corporate culture.

To this end, we have defined this policy as the Guidelines for Human Capital Development and have made clear what constitutes an Ideal Organization and Ideal Human Capital. With the objective of achieving this policy, we provide various opportunities and support for employees to develop their skills and capabilities within Kao's line management framework in accordance with their own level of motivation and organizational goals.

Furthermore, we clearly state roles and responsibilities and endeavor to fairly evaluate the performance of each employee on a regular basis in order to provide fair evaluations and compensation without regard for employment status, gender, or other individual attributes.

Guidelines for Human Capital Development

Continuously improve overall efficiency based on creative and innovative activities aimed at the sustainable growth of the Kao Group through *Yoki-Monozukuri*.

(Pursuit of efficiency)

Provide a work environment where each individual's dignity is respected, and which makes full use of employees' autonomy and diversity, since the enthusiasm of all employees to display their boundless wisdom is the wellspring of creation and innovation.

(Respect for human dignity)

Integrate organizational efforts and individual efforts through creative and innovative activities so as to achieve evolution for all. Make efforts to improve policies in order to offer all individuals freedom to display wisdom, and to enable combined individual efforts to lead the Kao Group to further prosperity.

(Efforts aimed at integration)

Vision of human capital development

Ideal organization

We are committed to building organizations that are characterized by openness and frankness so as to encourage people to pursue innovation, by empowerment characterized by greater transparency, and by organizational management based on the Kao Way. We also endeavor to actualize organizations in which the entire Kao Group operates harmoniously based on the concept of an "organically functional organization" that flexibly and quickly adapts to environmental change.

Ideal human capital

1. People with consistent willingness to take on challenges
Challenge & Change
2. People with high expertise
Professional Capabilities
3. People with a global perspective
Global Perspective
4. People with the team spirit needed to achieve superior performance
Communication & Collaboration
5. People with strong ethics
Integrity

Framework

To promote activities within the group in accordance with the Guidelines for Human Capital Development, we have introduced a framework that is shared and utilized globally. For example, we manage labor costs and make use of human capital information via a global human capital information system. We also improve our organizational capabilities through the employee opinion survey *Find* and bolster our human capital management and development through the establishment of job rank, evaluation and training systems and compensation policies that are shared globally.

We pursue these activities under Senior Vice President of Human Capital Development and our matrix management structures in cooperation with the human capital development divisions of each Group company, both within and outside Japan.

Furthermore, we have set up human affairs functions within major divisions in Japan while also establishing on-site career coordinators who oversee the nurturing of each employee and provide assistance in career development.

The Human Capital Development Conference, which is made up of the persons responsible for human capital development in major divisions and group companies in Japan, meets monthly, while persons responsible for human capital development overseas meet annually to share information on and discuss policies relating to human capital development throughout the group and the status of activities at each Group company.

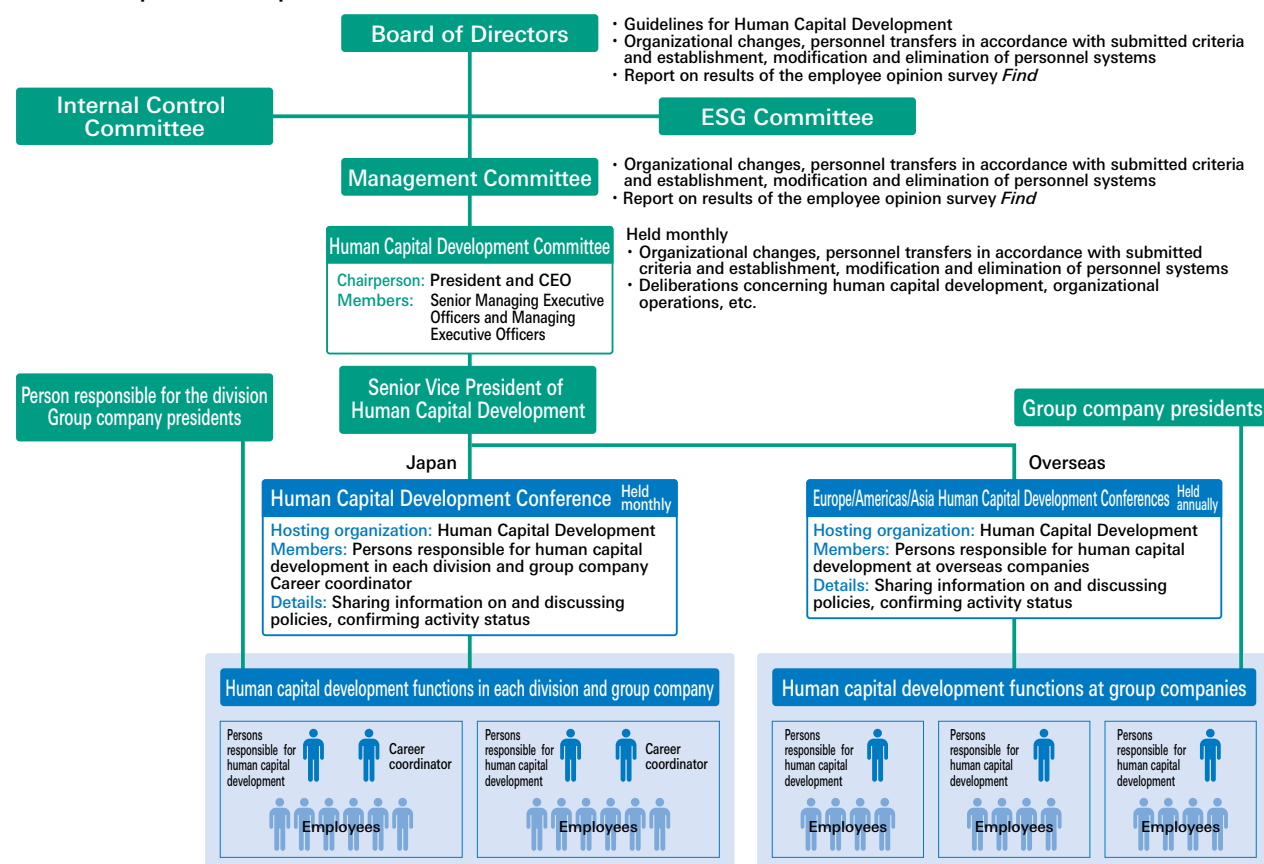
Major organizational changes, personnel transfers in accordance with submitted criteria and establishment, modification and elimination of personnel systems are deliberated on by the Board of Directors, Management

Committee and Human Capital Development Committee.

In addition to the above, the officer responsible for the Human Capital Development Division reports on human capital development policies and the results of the employee opinion survey *Find* to the Board of Directors.

The Human Capital Development Committee, where top executives participate as members, meets monthly to discuss human capital development, organizational operation and other matters in addition to deliberation matters pursuant to submitted criteria.

Human Capital Development Structures



* As of December 2018.

Kao's approach

The ultimate objective of human capital development is drawing out the unlimited potential of individual employees. Diverse employees of the Kao Group tackling challenging work that corresponds to their aptitudes and achieving growth leads to further demonstration of creativity at Kao.

Kao's creating value to address social issues

Social issues we are aware of

In the midst of trends such as the digital revolution symbolized by coexistence with AI, ESG management and the advent of a super-aged society in Japan, the optimal forms of how people live, social systems and jobs are undergoing major changes.

Along with this, for companies to understand the external environment and promote corporate transformation, it is a key that they encourage innovation in their human capital development by redefining the critical thinking and specialized knowledge and skills that are expected and develop their human capital.

Kao's creating value

Providing environments in which individual employees can fully demonstrate their potential is the driver that creates new business opportunities and growth. We are strengthening and promoting, on a global basis, measures to cultivate human capital that can make wide-ranging positive contributions to society through our corporate activities.

Risks related to realization of our vision by 2030

If we do not systematically implement human resource hiring, development and assignment in a manner that anticipates major environmental changes, we will not be able to achieve ongoing growth.

Opportunities related to realization of our vision by 2030

By developing next-generation leaders who can steer us through change and developing the careers of our diverse employees, all employees can perform their tasks with enthusiasm and achieve growth by performing work and contributing to society. This in turn allows us to become a company with a global presence that realizes continuous growth.

Contributions to the SDGs



Policies












While continuing to forcefully advance our business, we cultivate leaders who embody the behavior and values of the Kao Way, which is the Kao Group philosophy and the source of our strength, and who represent a repository of wisdom. We also promote career development for every employee in every organization within the Kao Group, aiming to provide attractive opportunities for professional development and growth. In addition, we are endeavoring, on a global level, to motivate employees to develop their capabilities and careers, with support from the company, and to find, nurture and promote across the group as a whole those employees with motivation and skills, ultimately leveraging their maximum potential.

Human capital development 103-1, 103-2, 103-3, 404-2

[Kao's approach](#)

Framework

Kao Group global common training program and specialist programs

		Marketing	Sales	SCM	R&D	Information Systems
SMP Level	 Global Leadership Development Program II					
	 Global Top Management					
	 Training for Promotion to G3 Level					Stage 3 Integrated IT Training
MP Level	 Global Leadership Development Program I		BLDP Advanced	SC Leadership Training	Specialist Programs Managers and Supervisors Forum	Stage 2 Methodology Training (Application) Applied Application Training Applied Technology Training
	 Managing Human Performance Program (MHPP)		BLDP Basic Sales			
LS Level	 Training Program for International Assignment	"Marketing University" (Master Level)	Exchange Program	•SCM Training •Global Techno-school •Global Engineer School	Science Basics Academy	
	 Business Skills Facilitation, negotiation, project management	"Marketing University" (Basic Level)	AC Training Key Account Management Excellence	•"High Pressure Academy" •"Anti-microbial Technology Academy" •Quality On-the-job Training (OJT) •SHIC		Stage 1 Methodology Training (Basic) Basic Application Training Basic Technology Training
	 Marketing Fundamentals II					
S Level	 Kao Way  Integrity	Marketing Fundamentals I	Introductory Training Field Sales Excellence	Monozukuri Skills Transmission C	"Freshman Forum"	
	 New Employee Orientation					Specialist IT Training for New Employees

SMP Level: Senior management/senior professional level

MP Level: Management/professional level

LS Level: Leading staff level

S Level: Staff level

Mid- to long-term targets and performance

2020 mid-term targets

1. Training program to cultivate self-directed learning and the ability to guide change

Global leader cultivation

- In cultivating future leaders who can drive our global business development, we collaborate with high-profile international business schools to implement intensive training. Besides working to enhance trainees' management skills, we are also working to expand opportunities for them to encounter the latest discoveries in a wide range of fields and to build their personal networks. Liberal arts studies are also included as a way to cultivate a depth of insight and a strong value system.

Providing employees with diversified development support

- In-house trainers are cultivated at individual Kao business locations around the world, working with speed and attention to detail to ensure that all employees absorb the Kao Way and Kao's emphasis on Integrity.
- By expanding opportunities for cross-industry exchange when employees are reaching milestones in their careers, and building networks to expand employees' perspectives, we provide stimulus for intellectually creative activity.
- We also make effective use of new learning tools such as e-learning and other Internet-enabled tools for language learning, etc. Besides creating new learning environments in this way, we also actively support employees' own self-directed learning efforts.

- In Japan, recognizing the growing importance of career development that takes into account the work styles appropriate for employees who wish to continue working after the age of 60, we are implementing programs such as the Life Plan Seminar for middle-aged and older employees.

2. Career development support

- We have been formulating and implementing integrated career development plans and new employment policies, with the aim of realizing systematic recruitment, assignment and cultivation for the group as a whole.
- We are promoting individual career development throughout the group for all employees regardless of which Group company they are employed by and regardless of the type of employment, and are building an environment in which all employees can challenge themselves while working toward forward-looking goals. We are also rolling out, in stages, our Self Education & Development Scheme (SeEDS), which aims to support individual skills and career development.

3. Fair and transparent evaluations and treatment

- The basic concept of our human capital development, "highly transparent evaluations and treatment based on the role and results," is applied to employees regardless of employment type, and forms the basis for performing fair evaluations and treatment without discrimination.

- In addition to clarifying employees' duties, roles and responsibilities, we operate a system globally in which individuals' performance is regularly and fairly evaluated and reflected in treatment and compensation. We have standardized our performance management system with some of our affiliates in Japan, Europe, the Americas and Asia, and have fully put into operation infrastructure to facilitate fair and transparent evaluations using common metrics.

Anticipated benefits from achieving mid- to long-term targets

Cost reductions or profit increase

Higher levels of employees' skills and sense of purpose as well as retention of human capital are promoted, and individual employees fully demonstrate their abilities. With the organization as a whole generating high performance, we will be able to offer even better products and services for society, the environment and consumers. As a result, we can realize expanded profit and cost reductions.

Impacts on society

When employees boldly take on challenges without fearing change in workplaces where they feel a sense of purpose, ideas that potentially solve social problems are generated, and we can offer even better products and services aimed at realizing a sustainable society.

Performance in 2018

Performance

Training program to cultivate self-directed learning and the ability to guide change

Global leader cultivation

The Global Leadership Development Program has been implemented as a global program common to all Group companies, in which members selected from individual Group companies study Kao's management challenges from a broader perspective and make proposals to top management.

The program had 31 participants in 2018 (16 from Kao Group companies outside Japan, and 15 from Kao Group companies within Japan). Since 2016, we have been working to strengthen cultivation of the next generation of leaders, by incorporating participation in business school open lectures focused on specific topics and individual presentations among other means.

In addition, we have implemented the roll-out of the Managing Human Performance Program (MHPP) in countries around the world to strengthen line management capabilities.

In 2018, a total of 381 employees (189 male employees and 192 female employees) underwent MHPP training in Japan. A revised MHPP program has been implemented in Kao Group companies outside Japan since 2017 to foster closer coordination and collaboration throughout the Group and strengthen management.

Each of these programs has received high evaluations from participants.

Providing employees with diversified development support

Starting in 2017, we have implemented a new 50+ Career Seminar for employees who have reached the age of 50 (starting with Kao Corporation), in addition to the existing Life Career Design Seminar for employees who have reached the age of 45 and the Life Plan Seminar for employees in their late 50s.

Average training hours per employee

	2017	2018
Average training hours	13.0	12.6

Expenditure on education and training per employee (consolidated)

	2016	2017	2018
Expenditure on education and training	66,000 yen	58,000 yen	56,000 yen

Kao's approach

Kao believes that the vitality derives from diversity can create new value for society. Reflecting this attitude, Kao strives to enhance its overall strengths as a business enterprise with an organizational environment that accepts the diverse personalities and values of individual employees and in which all employees are able to demonstrate their passion and capabilities to the maximum possible extent and make concerted efforts.

Kao's creating value to address social issues

Social issues we are aware of

Social values and lifestyles are undergoing significant changes and diversifying. In Japan in particular, the falling birth rates and aging populations are causing the labor force to shrink, and it is expected that the number of employees facing unique circumstances will increase still further in the future.

We believe that for companies to respond to these developments, they must become organizations that accept diverse values where diverse personnel can work. In an organization where it is difficult to utilize employees because of factors other than their enthusiasm and abilities, the diversity of values is lost and personnel are unable to adequately demonstrate their creativity and innovativeness.

Kao's creating value

Promoting diversity and inclusion (D&I) contributes to our ability to continue to provide products and services that achieve even higher satisfaction than in the past to various customers with a sense of urgency.

We endeavor to spread awareness concerning and understanding of D&I promotion among all employees, create an environment where employees can work regardless of personal attributes (such as

nationality, gender, sexual orientation, gender identity, age, and disability), and support the ability of employees to work while performing childcare, nursing care, or family care with the aim of maximizing employees' sense of the meaningfulness of their work as well as work results.

Risks related to realization of our vision by 2030

We believe that a company that is unable to employ diverse human resources would find it difficult to achieve continuous growth. A decline in employee enthusiasm and increase in employees leaving the company may prevent the company from fully demonstrating its overall capabilities. In addition, it may be difficult to recruit outstanding human resources.

Opportunities related to realization of our vision by 2030

Expressing a global presence within the promotion of D&I not only leads to increases in employee enthusiasm, but also enhances corporate value and spans the pool of future employee candidates who want to work for Kao.

Contributions to the SDGs



Policies

We put in place the corporate ethos and frameworks needed to enable each employee to demonstrate their enthusiasm and capabilities to the maximum extent. Taking as a foundation the relationship of trust that has been formed through smooth communication between management and employees, we are working to create an environment in which employees can focus on their work with enthusiasm, and an ethos and environment in which employees of all kinds feel that they are rewarded for doing their utmost, regardless of each employee's personal attributes.

Through these efforts, we aim to realize a virtuous circle of organizational and personal growth.

Education and promotion

Recognizing that managers have a particularly important role to play in the realization and dissemination of D&I, we have been implementing Diversity Management Training Sessions for all managers in Japan since 2017.

Framework

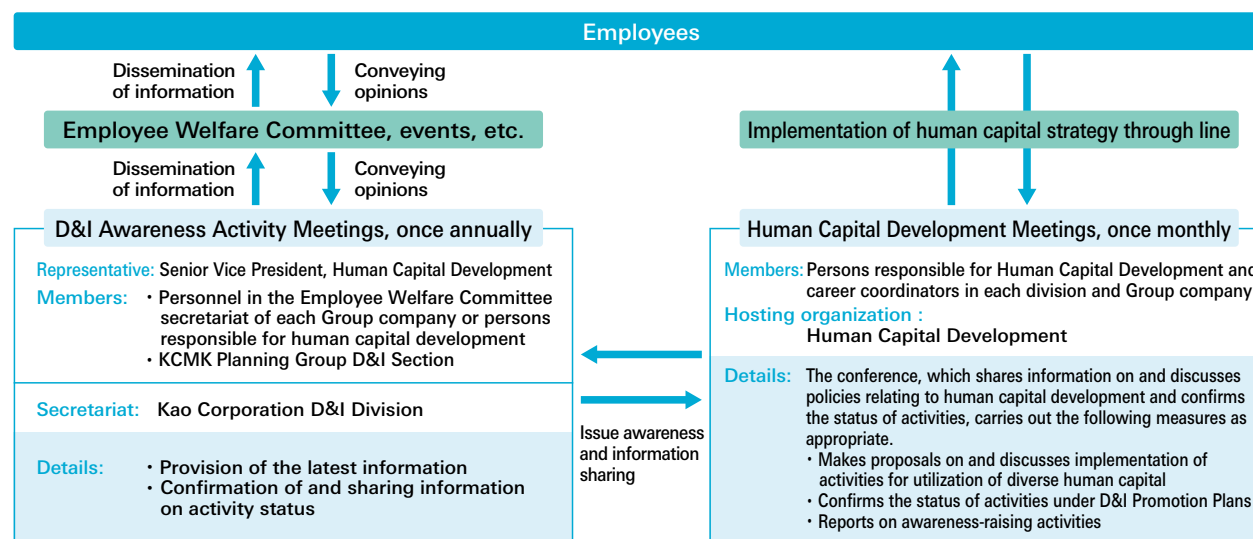
Matters relating to promote diversity among management candidates and strategies for the group as a whole are discussed by the Human Capital Development Committee, which consists of executive officers. Kao Corporation also has a special-purpose organization to promote and firmly established D&I throughout the Group. Collaborating with a specialized organization in Kao Group Customer Marketing Co., Ltd. (KCMK) Group, and with the persons responsible for human capital development in each Group company and division and the persons in charge of the secretariats of each Employee Welfare Committee, we broadly share information and opinions, and deliberate through Human Capital Development Meetings and D&I Awareness Activity Meetings.

Kao Group companies and divisions in Japan formulate and implement D&I promotion plans based on analysis of the current situation with the aim of ensuring continuous improvement.

Employee Welfare Committee secretariat managers from nine Kao Corporation business locations and six major Group companies undertake the dissemination of information regarding D&I promotion and plan and implement related events. At D&I Awareness Activity Meetings, participants report on examples of best practice, disseminate information regarding D&I Awareness Months, and share information about the latest D&I-related topics. In 2018, an expert lecturer was invited to give a talk on considering bias in decision-making.

Both meetings outlined above also share new topics to one another to facilitate multi-layered D&I promotion.

Framework for D&I promotion activities



Mid- to long-term targets and performance

Mid- to long-term targets

Within Japan, we will continue to implement measures aimed at creating an environment and corporate ethos that encourage all employees to enthusiastically play an active role in the company, regardless of gender, disabilities, or whether they have childcare, nursing care or other family responsibilities.

Companies in Japan are working together to carry out initiatives, while overseas companies are taking measures in line with their understanding of their respective issues. We are creating new frameworks to take unified measures throughout the Group companies outside Japan.

We will share information on best practices while reinforcing our efforts to be an organization that respects and actualizes each and every employee, regardless of personal attributes.

Anticipated benefits from achieving mid- to long-term targets

Cost reductions or profit increase

- Enhanced employee vitality through a higher sense of fulfillments and pride in one's work.
- Improved employee retention and increased competitiveness in the hiring market.
- A greater sense of unity throughout the group by implementing measures that include overseas Group companies.
- As a result of the above, reduced costs relating to hiring and employee retention and higher revenues resulting from improved productivity can be expected.

Impacts on society

By implementing D&I, it becomes easier to create new value, and we are able to provide better products and services that lead to customer happiness and satisfaction.

Performance in 2018

Performance

Ongoing reviews have been made aimed at putting in place a framework for further promotion of D&I throughout the group as a whole. In 2018, deployment plans were presented to overseas human resource managers and personnel, and discussions were conducted on methods of implementing policies and priority issues.

The D&I Promotion Division created a portal site on the company intranet in April 2018. The site organizes information and measures relating D&I previously disseminated to serve as a new platform for the distribution of information in Japan.

Within the results of the employee opinion survey *Find 2018*, positive responses regarding systems and structures for maintaining a good balance between work and personal life improved by 6 points.

Kao USA implemented measures as I&D Activities. In 2018, articles relating to diversity were posted on the intranet each month. In addition, training on unconscious bias was also conducted.

Reviews of performance

In Japan, responses to issues were steadily implemented according to their attributes and a platform for the dissemination of information was established. Going forward, we will establish a framework for further promotion of D&I throughout the group as a whole including overseas.

We are currently at the stage of sharing examples from overseas Group companies, but we will examine collaborative measures in the future.

Collaboration with stakeholders

- In 2010, we signed the Women's Empowerment Principles, which are international guidelines for women's participation in society based on UN Women and the UN Global Compact.
- We have participated as a member of the study groups of government agencies and various organizations, giving corporate case study presentations at seminars and other initiatives with the aim of contributing to the promotion of D&I throughout society.

Main case study presentations in 2018

- Kao employees participated in the Integrated Seminar on the Provision of Support to Help Employees Balance Work and Childcare Responsibilities, which was organized by the Ministry of Health, Labour and Welfare (MHLW) and held from June 2017 to March 2018, to share their experience of practical implementation within a business enterprise.
- Gave case study presentations at the symposia on Enhancing Support for Balancing Work and Family Care Responsibilities held by Keidanren in Tokyo and Fukuoka.
- Responded to observation by a Ministry of Health, Labour and Welfare Parliamentary Vice-Minister (presentation on family care support services and measures to support employees).
- Hosted a Career Management Course (company visit to promote female employee empowerment) sponsored by Tochigi Prefecture (Tochigi Gender Equality Center).
- Appeared at a lecture held by the Chubu Productivity Center family care support).

- Kao Peony Co., Ltd. has been providing support to help people with disabilities secure employment, including actively arranging workplace visits and workplace training opportunities for students from special needs schools. The company has also collaborated with an NPO engaged in providing employment-related support for people with disabilities to provide off-site employment opportunities within the company's head office located in Kayaba-cho of Chuo ward in Tokyo.

Our initiatives

Support for the active utilization of diverse human capital

Discussion regarding the promotion of D&I

D&I is ongoing at overseas Group companies to promote D&I throughout the Group as a whole. In 2018, we shared our understanding of the issues with human resource managers and personnel in Europe, the Americas, and Asia and engaged in deep debate.

We also began collecting information on examples of practices and plan to share that information throughout the Group starting in FY 2019.

Screening and development regardless of gender and other personal attributes

Issues regarding gender are incorporated into D&I promotion plans for each department, and those plans are carried out. In addition, we set target values for screening core human capitals according to the composition of the workforce, and we are steadily implementing screening and development regardless of personal attributes. Human capital meetings conducted by executive officers engage in discussions while confirming that women are included among the candidates for senior positions.

Female role models are limited, so we encourage female managers to participate in multiple outside study groups in other industries as a part of our positive action. In addition to study groups conducted by NPOs and public service corporations, female executive officers within Kao voluntarily plan and implement study groups

in collaboration with officers from other companies.

KCMK Group

To promote the development of wide-ranging human capital, we cooperated with two other companies and planned a cross-industry networking event for female employees just below the managerial level. Five female employees attended from the KCMK Group.

Kao USA

Kao USA organized the Kao Network of Women (Kao NOW) to support career development and information sharing by women. The mission of the organization is to provide connections and support to all women in the organization. Three committees were established and take action regarding networking, regional and educational needs.

Manager training

Kao Corporation began holding the Diversity Management Training Session for Managers (basic edition) in 2017. In 2018, sessions were held on five occasions at the Tochigi Plant, with 225 persons participating. For those managers who had not been able to attend the training sessions, e-learning with same content was provided, and 794 persons participated. Since last year, a total of 2,800 persons have attended the training, and the participation rate among managers is 94%.

Utilization of senior employees

To develop new career opportunities to enable senior employees to continue to remain active and make a contribution after reaching retirement age by utilizing their experience and specialist expertise, either within Kao or elsewhere, we conducted new work development and recruiting via the intranet, and provided career counseling and job matching through the Senior Career Consultation Service.

LGBT training

To promote employee understanding of LGBT issues, we conducted e-learning for all employees in Japan (targeting approximately 16,000 persons). We also conducted ALLY* recruiting, and approximately 200 employees made declarations.

In addition, lectures at individual work sites have been introduced since 2015, and a lecture was held at one site in 2018 (at the Wakayama Complex, with 25 persons participating). To date, these lectures have been held at 6 work sites, with the cumulative total of 393 persons attending. We also distributed the Kao Business Conduct Guidelines (BCG) and leaflets to instructors at cosmetic schools directly operated by Kanebo Cosmetics Inc. to inform them about LGBT issues.

* ALLY:

People who may not necessarily be LGBT themselves, but who express understanding and are supportive of LGBT people.

Number of Kao Group employees (regular employees)

	2014	2015	2016	2017	2018
Total (persons)	32,707	33,026	33,195	33,560	33,664
Male (persons)	15,367	15,686	16,863	16,970	16,916
Female (persons)	17,340	17,340	16,332	16,590	16,748
Female employees as percentage of total (%)	53.0	52.5	49.2	49.4	49.8
Japan	21,852	22,105	21,991	22,211	22,323
Male (persons)	9,771	9,981	10,861	10,812	10,859
Female (persons)	12,081	12,124	11,130	11,399	11,464
Female employees as percentage of total (%)	55.3	54.8	50.6	51.3	51.4
Asia and Oceania (excluding Japan)	7,086	7,091	7,312	7,191	7,003
Male (persons)	3,517	3,679	3,922	3,957	3,773
Female (persons)	3,569	3,412	3,390	3,234	3,230
Female employees as percentage of total (%)	50.4	48.1	46.4	45.0	46.1
Europe and the Americas	3,769	3,830	3,892	4,158	4,338
Male (persons)	2,079	2,026	2,080	2,201	2,284
Female (persons)	1,690	1,804	1,812	1,957	2,054
Female employees as percentage of total (%)	44.8	47.1	46.6	47.1	47.3

Status of regular employees (Kao Corporation)

	2016	2017	2018
Regular employees (persons)	7,195	7,332	7,655
Male	5,568	5,631	5,831
Female	1,627	1,701	1,824
Female employee ratio as percentage of total (%)	22.6	23.2	23.8
Female manager ratio as percentage of total (%)	14.0	15.5	16.8
Female managers (persons)	336	381	432
Female executive officers ratio as percentage of total (%)	8.8	8.6	5.7
Female executive officers (persons)	3	3	2
Average age (years)	41.2	41.0	41.8
Male	42.0	41.7	42.6
Female	38.5	38.6	39.4
Average length of employment (years)	18.3	17.4	17.8
Male	19.4	18.4	19.2
Female	14.5	13.9	13.5
Number of recent graduates hired (persons)	283	269	304
Male	214	196	214
Female	69	73	90
Employee turnover (%)	0.5	0.6	0.7

Status of female employees in the Kao Group

		2016	2017	2018
Female employees				
Global	Percentage (%)	49.2	49.4	49.8
	No. of employees (persons)	16,332	16,590	16,748
Japan	Percentage (%)	50.6	51.3	51.4
	No. of employees (persons)	11,130	11,399	11,464
Female managers				
Global	Percentage (%)	25.4	25.1	27.3
	No. of employees (persons)	1,700	1,618	1,799
Japan	Percentage (%)	13.1	14.6	18.4
	No. of employees (persons)	573	648	847
Female executive officers				
Global	Percentage (%)	6.7	7.7	8.0
	No. of employees (persons)	11	14	16
Japan	Percentage (%)	4.1	4.5	6.0
	No. of employees (persons)	5	6	10

*1 The executive officer ratio is calculated using data for the main Kao Group companies (52 companies in 2018).

*2 Starting from 2018, the definition used for calculation of executive officer ratios and totals was changed to one based on absolute totals.



The 2020 target for female managers as percentage of total (Japan) is as follows.
→ p. 223 Major Sustainability Indicators

Number of persons re-employed after retirement (Kao Corporation)

	2016	2017	2018
Number of employees who reached retirement age*	104	93	109
Of which, Number of employees re-employed after retirement	86	73	92
Percentage	82.3	78.5	84.4

* Number of employees who reached retirement age = Number of retired employees + Number of re-employment after retirement.

Promoting better understanding of disability and promoting the employment of persons with disabilities

We position support for people with disabilities as an important part of our D&I efforts, and have formulated a basic policy of “Striving for a society where people with and without disabilities work and live together, we create workplace environments for employees with disabilities that make life easier for them and foster a sense of pride in one’s work.”

Promoting normalization

- September has been designated as “Disability Understanding Promotion Month” when we conduct various awareness-raising activities including the sharing of information by the Employee Welfare Committee and issuing newsletters on the intranet. We also periodically hold seminars, joint study sessions with employees who have intellectual disabilities, and other events to increase understanding of disabilities.
- We prepared a Disabled Person Employment Manual and a Fact Sheet for Understanding Disabilities and distributed them on the intranet to promote mutual understanding among individuals with disabilities and their colleagues.
- We introduced UD Talk, software that converts speech into text, to support communication with employees who have hearing impairments.
- We also assigned Vocational Life Consultants for Persons with Disabilities to worksites nationwide to conduct consultations and hold an Employees with Disabilities Support Meeting once each year to help the consultants upgrade their skills and strengthen the overall support system for persons with disabilities.

Measures implemented at special subsidiaries

Kao Peony, a special subsidiary, has actively employed persons with severe disabilities, primarily persons with intellectual disabilities, since 2005, and the production division has achieved the same production volumes as those on lines operated by persons without disabilities. The company established a new Office Support Department in 2017 and has been working to expand employment.

In recognition of its efforts over many years, Kao Peony received the Disabled Persons Employment Excellent Company Award from the Tokyo Metropolitan Government as a company that undertakes distinctive and outstanding measures relating to the employment of persons with disabilities.

As of January 2019, a total of 41 employees work at Kao Peony, including 33 with intellectual disabilities.

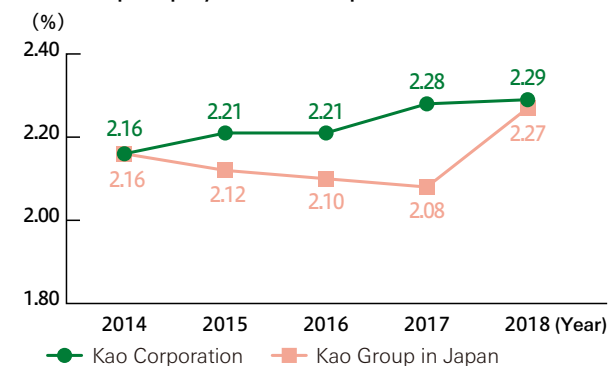


Kao Peony Office Support Department

Employment rate of persons with disabilities (Japan)

Currently, persons with disabilities account for 2.27% of the total workforce of the Kao Group within Japan, exceeding the statutory minimum rate of 2.2%. (As of June 2018.)

Kao Group employment rate of persons with disabilities*



As of June 1, 2018.

* Scope:

Thirteen domestic affiliates that are required to employ people with disabilities (Kao Corporation, Kao Group Customer Marketing Co., Ltd., Sofina Beauty Counseling Co., Ltd., Kanebo Beauty Counseling Co., Ltd., Kao Field Marketing Co., Ltd., Kao Professional Services Co., Ltd., Kao Sanitary Products Ehime Co., Ltd., Kao Logistics Co., Ltd., Kao Business Associe Co., Ltd., Kanebo Cosmetics Inc., e'quipe, LTD., Kao Cosmetic Products Odawara Co., Ltd. and special subsidiary Kao Peony Co., Ltd.).

Realization of diversified work styles

With the aim of making it possible for diverse employees to maximize their potential in different workplaces, we are undertaking efforts to develop environments and personnel systems that will improve workplaces and facilitate more flexible work styles.

We believe that it is important to cultivate a corporate ethos where employees can make full use of the current personnel systems, and we are disseminating information and conducting training and various other programs to that end.

Production lines where anyone can work

At our production sites, with respect to paper processing production lines* where the physical effort required by the work is particularly high, we are making improvements to equipment and adjustments to working methods in order to create production lines that anyone can operate including female and senior employees.

Sites where women can work in plants have been expanding year-by-year, and we are working to establish mutual understanding and improve operations from the perspective of women by creating opportunities for the exchange of information and interaction among women operators at different plants.

* These production lines are located at Kao's Sakata Plant, Tochigi Plant and Kao Sanitary Products Ehime.

Systems that facilitate flexible work styles

A work-from-home system was introduced in the KCMK Group in January 2018 and at other main subsidiaries in July as a means of increasing time and location options and facilitating diversity in work styles in order to achieve flexible work styles. Employees who are dealing with various

circumstances in their personal lives can work from home if they obtain approval from a supervisor.

In addition to the flextime system, which enables flexible working hours between 7:00 and 20:00, introduced earlier, a monthly flextime system that expands the period when employees can work flexibly to one-month units was also introduced.

Encouraging employees to take vacation time

With the aim of promoting work style reform (effective use of time off) and addressing long working hours, we are taking measures to achieve: 80% or higher average vacation time usage rate in the group; 50% or higher minimum usage rate of individual employees. In 2018, the average vacation time usage rate reached 74.8%. We will take additional measures to achieve these targets.

Introduction of new personnel systems

By using smart phones and other devices, employees can make timely reports on their daily work start and end times according to the actual conditions even when visiting clients or at home, leading to reductions in overtime work and higher efficiency in submitting requests and receiving approvals.

Support for balancing work and childcare or family care responsibilities

Seminars for employees returning from childcare leave (Tatsuno-oshigoto Seminars)

Each year, we conduct seminars for employees who are about to return to work from childcare leave (Tatsuno-oshigoto Seminars) at Group companies in Japan. The seminars present a concrete image of life after returning to work and help employees prepare their attitudes and raise their awareness regarding reinstatement.

Kao Corporation is also encouraging spouses to participate in the training with the aim of building cooperative relationships with partners in home life and career development.

In the KCMK Group, these seminars place particular emphasis on raising motivation and include a message from the president as well as lectures by more senior working mothers. In 2018, joint seminars for beauty advisors at Sofina and Kanebo stores were conducted for the first time.

The seminars were conducted at branches with high numbers of employees returning to work from leaves, but starting in 2019, we plan to hold the seminars at all branches nationwide.

Family care support measures

In accordance with our fundamental policies of enabling each individual to act independently and providing assistance based on a spirit of mutual support, we are taking measures to educate employees and to promote mutual understanding in the workplace with the aim of preventing employees from leaving work the cause of family care obligations. Many employees are facing considerable stress in their familial relationships because of the need to care for seniors. To address this issue, in 2018 we held a family care seminar that emphasized communication with family members (attended by 810 persons), revised our nursing care handbook, and took other actions.

Main support for balancing work and childcare responsibilities

- Distributing a leaflet with information on systems that support the life-work balance targeting male employees
- Conducting pre- and post-childcare leave interviews
- Encouraging communication between employees on leave and their workplace supervisors using childcare leave reports
- Holding seminars for employees returning from childcare leave (Tatsuno-oshigoto Seminar)
- Provision of an on-site day care facility (Merries Garden)
- Holding Father & Mother (F&M) Meetings (discussion meetings by working fathers and mothers)
- e-Learning for managers ("Work and Life Balance Management")

Main support for balancing work and family care responsibilities

- Holding family care seminars
- Provision of family care handbooks
- Reinforcement of family care consultation skills by human resources personnel
- Establishment of an external family care consultation service

General work-life balance measures

- Individual guidance before using leave systems
- Encouraging employees to make full use of relevant allowances and services
- Awareness-raising through manager trainings
- Dissemination of awareness-raising newsletters
- Provision of the Work and Life Balance Guidebook

Kao is awarded Platinum Kurumin certification

In May 2016, Kao Corporation was awarded Platinum Kurumin certification for creating a supportive workplace for employees with children, in accordance with the provisions of the Act for Measures to Support the Development of the Next Generation.



Platinum Kurumin



Kao Corporation Seminars for Employees Returning from Childcare Leave (Tatsuno-oshigoto Seminars) in 2018

Main systems for supporting diversified work styles (Kao Corporation)

Main systems	Details	
	Childcare related	Nursing care and family care related
Leave	In principle, childcare leave can be taken until the first April 30th following the child's first birthday. Paid leave is provided for the first five days after the commencement of childcare leave.	Nursing care and family care leave can be taken for a maximum period of one year. During the period in which nursing care and family care leave is permitted, such leave can be taken in a maximum of three blocks of time.
Reduced working hours and staggered working hours	Either specified working hours can be reduced by up to two hours per day, or the specified time for starting work or finishing work can be adjusted until the child completes the third grade of elementary school.	Along with flexible working hours, this system can be utilized for a period of up to three years. Alternatively, this benefit can be taken in up to two blocks of time within the three-year period. Either specified working hours can be reduced by up to two hours per day, or the specified time for starting work or finishing work can be adjusted.
Flexible working hours	In principle, this can be implemented, on the request of the company, until the first April 30th following the child's first birthday. Employees can either work three days a week or work a half day five days a week.	Along with reduced working hours and staggered working hours, this system can be utilized for a period of up to three years. Alternatively, this benefit can be taken in up to two blocks of time within the three-year period. Employees can either work three days a week, or work a half day five days a week.
Restriction on extra working hours	Up until the first April 30th following the child's enrollment in elementary school as a first grader, the employee can request either limits or exemption to perform work outside normal working hours, work on holidays, or work late at night.	Employees who have family members requiring nursing care or family care for a period of more than two weeks can request either limits or exemption to perform work outside normal working hours, work on holidays, or work late at night either.
Working from home	Employees can work from home in order to perform childcare with a supervisor's approval (work from home for the entire day is permitted).	Employees can work from home in order to perform nursing care or family care with a supervisor's approval (work from home for the entire day is permitted).
Special leave for nursing care and family care	Special leave is available for employees who need to fulfill nursing care or family care responsibilities (up to a maximum of either 40 days a year or 20 days a year).	Special leave is available for employees who need to fulfill nursing care or family care responsibilities (up to a maximum of either 40 days a year or 20 days a year). This leave can be taken in increments of either one day, half day, or one hour.

Main systems	Details	
	In common	
Flextime system	With the exception of some shift workers, flextime is applied to all employees, regardless of grounds. The times for the start of work and end of work will be set within a flextime range of 7:00–20:00. Settlement periods were expanded to one-month units. No "core time period" will be set.	
Hourly leave system	Annual paid leave can be taken in hourly increments up to a maximum of five day-equivalents within any one-year period, regardless of the reason.	
Family leave for overseas assignments	Where an employee's spouse is be on an overseas assignment and the employee wishes to accompany the spouse, a period of leave of at least one year and no more than two years can be taken.	
Special leave for personal injury or sickness	Special leave is available for employees who incurred a personal injury or sickness (up to a maximum of either 40 days a year or 20 days a year). In principle, this leave can be used when an employee must be absent from work for eight or more days.	
Special leave for volunteering activities	Special leave is available for employees who participate in volunteering activities approved by the company (up to a maximum of 5 days a year). This leave can be taken in increments of either one day or half day.	
Refreshment leave	This leave is granted to employees who have completed 10, 20, 30 or 40 years of service with the company (up to a maximum of 5 days a year).	

Employment system utilization status (Kao Corporation)

Employment system	2017	2018	Unit
Average hours worked outside regular working hours (per month)	19.5	18.7	(Hours)
Average days of paid leave taken	13.7	15.1	(Days)
Average paid leave utilization rate	72.8	78.8	(%)
Average hours of leave taken in hourly increments	1.7	3.3	(Hours)
No. of employees taking childcare leave (male)	101	124	(Persons)
No. of employees taking childcare leave (female)	90	113	(Persons)
No. of employees taking reduced working hours or staggered working hours to meet childcare responsibilities (male)	11	12	(Persons)
No. of employees taking reduced working hours or staggered working hours to meet childcare responsibilities (female)	85	102	(Persons)
No. of employees taking nursing care or family care leave (male)	2	2	(Persons)
No. of employees taking nursing care or family care leave (female)	2	2	(Persons)
No. of employees taking reduced working hours or staggered working hours to meet nursing care or family care responsibilities (male)	1	1	(Persons)
No. of employees taking reduced working hours or staggered working hours to meet nursing care or family care responsibilities (female)	0	0	(Persons)
No. of employees taking family leave for overseas assignments (male)	0	0	(Persons)
No. of employees taking family leave for overseas assignments (female)	6	8	(Persons)
Average number of days of special leave for volunteering activities taken	0.9	1.9	(Days)
Total number of employees taking special leave for volunteering activities	7	9	(Persons)
No. of employees utilizing the working-from-home system	—	308	(Persons)

Topic External evaluation

Kao selected for Thomson Reuters D&I Index

In 2018, Kao ranked 24th in the world in the Thomson Reuters Diversity & Inclusion Index, the highest ranking of any Japanese company.

For this index, Thomson Reuters ranks more than 7,000 publicly-traded companies and announces the 100 with the highest D&I ratings.

TOP 100
COMPANY
2018

Thomson Reuters
Diversity & Inclusion Index

Kao selected for the Nadeshiko Brand list for the third time

Kao was selected in 2018 for the Nadeshiko Brand list as a company that has made outstanding achievements in advancing women's participation in the workplace. This is the third time that Kao has been selected. Kao was recognized for undertaking evaluations and employment based on enthusiasm and ability, regardless of gender, and for developing systems that facilitate diverse work styles.



Kao's approach

Kao strives to develop good workplace environments on the basis of the recognition that favorable relationships and communication with employees are one of the most important aspects of the corporate culture. In addition to creating various opportunities for dialogue with employees, we conduct employee opinion surveys periodically.

Kao's creating value to address social issues

Kao's creating value

Besides aiming to enhance both corporate growth and employee motivation, we eliminate authoritarian approaches and place great importance on a corporate culture in which top management and employees collaboratively work together to achieve business goals.

In order to build favorable labor relations, we provide opportunities for sharing and discussion with employee representatives with regard to our current situation and policies as well as measures for human capital development. This encourages our employees to further exercise their creativity, and to provide even higher-quality products and services.

Risks related to realization of our vision by 2030

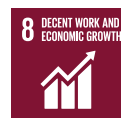
If we fail to maintain healthy labor relations, then employee engagement may fall, and there is a risk that we may be unable to achieve the business objectives that we planned in order to realize our vision for 2030.

Opportunities related to realization of our vision by 2030

By maintaining and developing healthy labor relations, we can strengthen employee engagement. If our

employees are able to further exercise their creativity, then it can be anticipated that we may be able to achieve results that surpass the business objectives that we planned in order to realize our vision by 2030.

Contributions to the SDGs



Policies

We strive to foster understanding between senior management and employees by facilitating opportunities for mutual talks, with the objective of developing unity throughout the group and enhancing employee engagement. We promote mutual understanding between senior management and employees by providing opportunities for the exchange of opinions and views whereby the senior management explains priority issues such as the company's current situation, policies and human capital development to employees as well as responding to their questions. In this way, we establish an understanding of the genuine concerns and opinions of employees, which then feeds into ongoing measures to develop human capital and

improve the workplace environment, among other undertakings.

There are regular opportunities for dialog between the factory labor unions at Kao Corporation's Wakayama Plant and Sakata Plant, and the labor unions of our affiliate companies, and our senior managers and personnel managers, enabling us to respond to the labor unions' proposals and expectations, and making it possible for management and employees to share details of our current situation and future strategy.

We also conduct employee opinion survey *Find*, periodically to realize the goal of creating a "Great place to work." We then confirm the respective strengths and areas where improvement is needed of each organization by visualizing the organizational status using numerical data. Subsequently, we identify our challenges based on analyses of these results, and formulate and set and implement effective action plans. In these ways, we endeavor to consolidate the RPDCA cycle* to improve our organization and workplaces.

* RPDCA cycle

This adds "Research" (which equates to "analysis of the current situation") to the PDCA cycle for operational improvement. Doing so has allowed us to strengthen our ability to respond to changing circumstances.

Dialogue with employees 103-1, 103-2, 103-3

Kao's approach

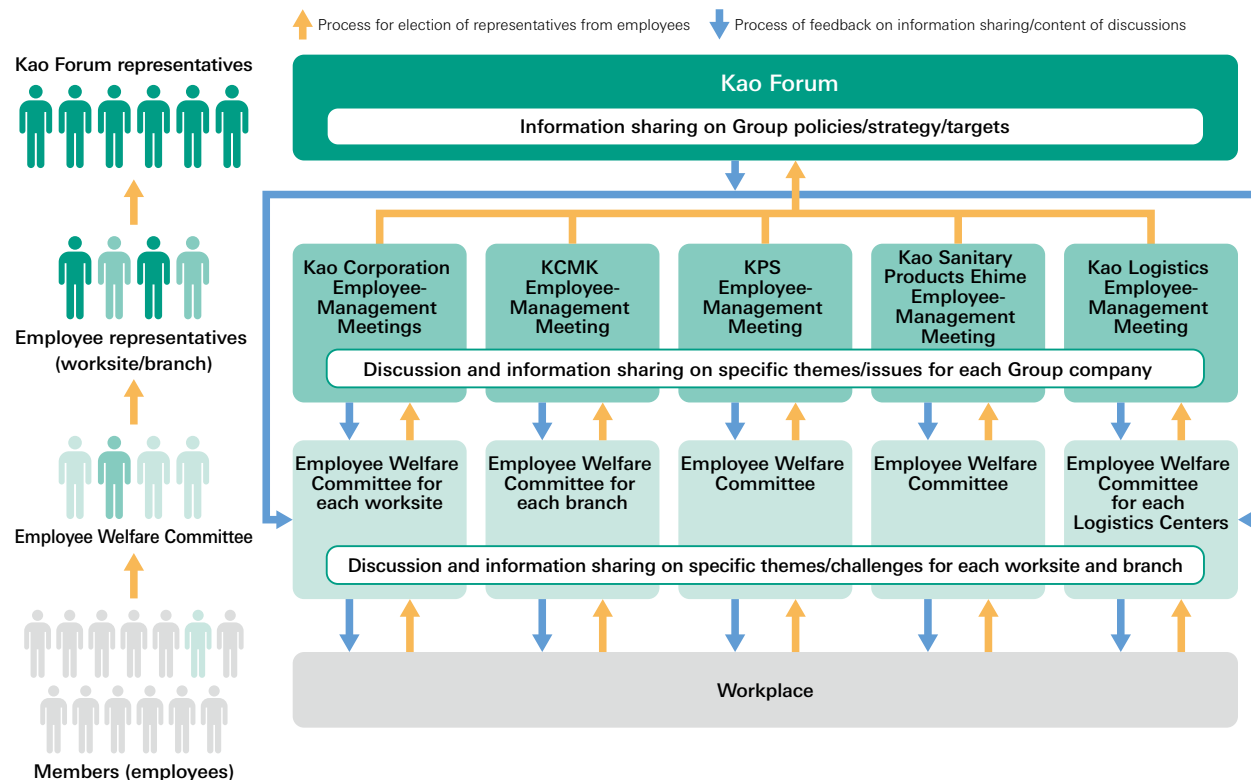
Framework

Platforms for regular dialogue with employees include Employee Welfare Committees at each worksite and branch, Employee-Management Meetings at every Group company, and the Kao Forum for the group as a whole. We hold the Kao Forum in both Japan and Europe. Employee representatives from Kao Corporation, Kao Group Customer Marketing Co., Ltd. (KCMK), Kao Professional Services Co., Ltd. (KPS), Kao Sanitary Products Ehime Co., Ltd. and Kao Logistics Co., Ltd. participate in the Kao Forum in Japan.

Meetings of the Employee Welfare Committee are conducted monthly, and the Employee-Management Meetings and Kao Forum are conducted twice a year. Continuous mutual information sharing on the content of the discussions and information shared at each meeting is implemented for all employees through the employee representatives and Employee Welfare Committees. Within the group as a whole, the percentage of employees that are union members is 32%.*

*This figure excludes Kao Group member companies that are prohibited from disclosing employee union membership information due to information protection regulation of countries/regions where they operate business.

Employee dialogue structure



Mid- to long-term targets and performance

2020 mid-term target

Enhance and consolidate the RPDCA cycle toward regular implementation of employee opinion surveys and organizational improvements.

Anticipated benefits from achieving mid- to long-term targets

Cost reductions or profit increase

It can be anticipated that enhanced employee engagement will be accompanied by the ability to maintain or grow revenue as a result of achieving or exceeding our planned growth targets. In addition, the reduction in employee turnover can be expected to lead not only to a fall in recruitment costs but also to an enhancement in Kao's reputation as an employer.

Impacts on society

The enhancement of employee engagement will lead our employees to further exercise their creativity, and to provide even higher-quality products and services. It can be anticipated that a reduction in the environmental burden and an increase in employee satisfaction will be realized.

Performance in 2018

Performance

- In April 2018, we implemented the employee opinion survey *Find* 2018.
- In February and July 2018, Employee-Management Meetings and the Kao Forum were conducted in each Kao Group company. The Kao European Forum was conducted in the European region in May 2018, with 17 employees participating as regional representatives.
- At the Kao Forum, where employee representatives from different Kao Group companies are brought together, a total of 29 employee representatives participated: 15 from Kao Corporation, 10 from KCMK, two from KPS, one from Kao Sanitary Products Ehime Co., Ltd., and one from Kao Logistics Co., Ltd.. Questions were fielded from employee representatives, which included questions regarding the orientation of respective business areas, product development and deployment of sales measures, and CSR activities, etc. Many positive comments were received from employee representatives, including: "My sense of belonging to the Kao Group has increased" and "I learned more about our direction and approaches, which will serve as a useful guide for the future."
- At the Employee-Management Meetings, there was concrete discussion regarding the strategies and measures being implemented by individual

companies, etc. During the Employee-Management Meeting at Kao Corporation, the discussion between human resources management and employees focused on issues relating to human resources and employee welfare matters, with an exchange of views regarding measures to promote better workstyles.

→ Remote work system: Thanks to the exchange of views, we were able to take employees' views into account when implementing working at home on a trial basis and putting in place the related systems.
→ Adjustment of living allowances: Progress reports and exchange of views were implemented on an ongoing basis.

Reviews of performance

- In 2019, we formulated action plans to address the issues identified from the results obtained in the employee opinion survey *Find* 2018, and implemented measures to resolve these issues. We formulate concrete action plans, in line with the issues affecting individual organizations, which embody the key features of the strategy adopted for company-wide measures, including Communication and Challenge, etc.
- In FY 2019, we intend to implement the Kao European Forum, Kao Forum and Employee-Management Meetings as planned.

Our initiatives

Implementation of the *Find* employee opinion survey, and drafting of action plans

The *Find* employee opinion survey is implemented regularly, once every two years. In the first year, the focus is on survey implementation, results analysis and development of action plans. In the second year, the action plans are put into practice. The implementation results are then verified in the next *Find* survey, thus ensuring effective the implementation of the RPDCA cycle.

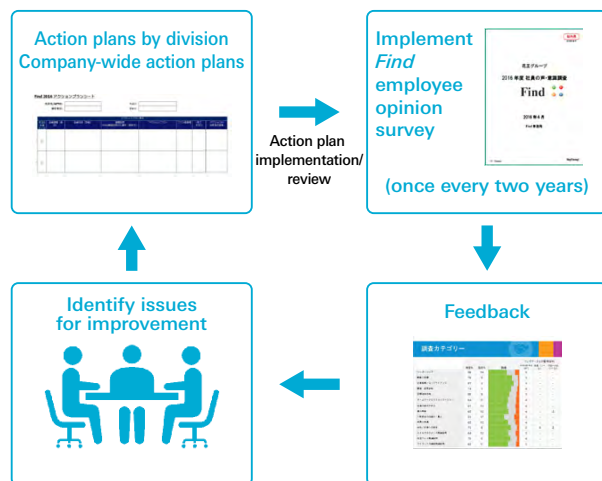
2018 was a year in which the *Find* survey was implemented. Survey implementation targeted 34,648 employees, and the vast majority of these employees

responded to the survey, with a response rate of 94%. This means that, globally, 70% of all Kao Group employees responded to the survey. The questions included in the survey were organized into four categories: Company/Organization Function, Business Function, Employee Function, and Satisfaction with Company/Work. In replying to the question regarding "Pride in working for the Kao Group," 77% of employees responded positively that they did feel pride in working for Kao. Feedback on the survey results was provided to each unit, and units were

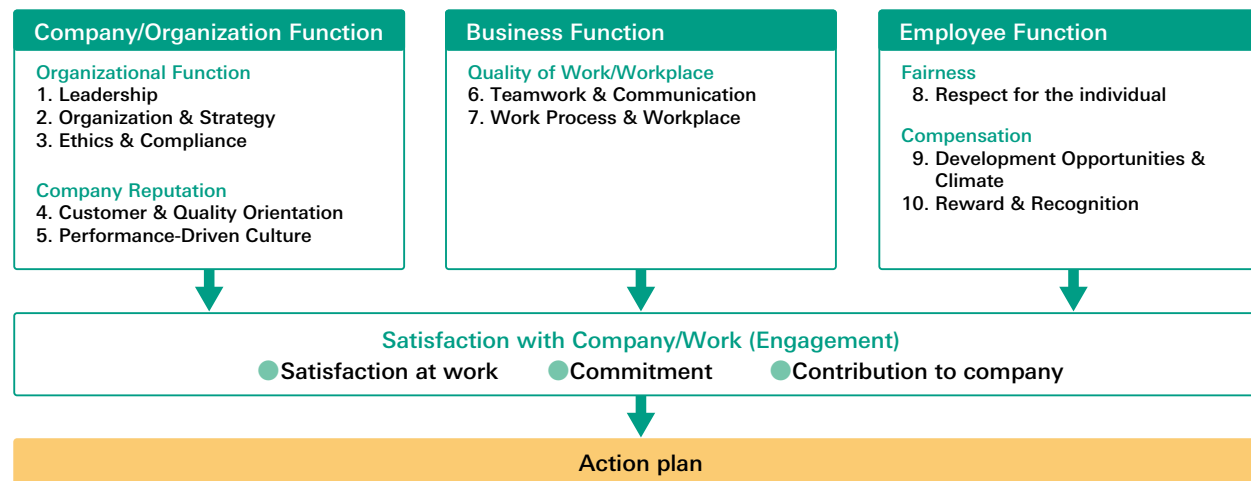
helped to identify their individual strengths as well as areas where they have been slow to respond to a changing environment and other challenges.

As regards the overall strategic direction for company-wide action, we selected five key items—including moving forward to the big changes and challenges toward K20, Return to the basics of the Kao Way "To be closest to consumers and customers"—and, following discussion with each individual unit, formulated concrete action plans.

RPDCA to improve organizational capacities



Employee opinion survey *Find* questionnaire items



Kao's approach

Good health is a fundamental requisite for employees to be able to get the most out of each day, both at work and in their personal lives. We understand that we can develop our business and contribute to society only if our employees and their families have healthy lives. As disseminating the Kao Group Health Declaration in 2008 to both inside and outside Group companies, we are committed to Health and Productivity Management by actively implementing support programs for health and healthy lifestyles of employees and their families, which form the foundation of human resource utilization. We launched the GENKI project to help employees and their family members stay healthy, as part of our Mid-term Plan 2020 (K20) in 2017, and are promoting initiatives throughout the group companies.

Kao's creating value to address social issues

Social issues we are aware of

- Attenuation of global aging and increase in chronic diseases.
- Increase in medical expenses from decreasing birthrate and aging population in Japan.
- Increase in bedridden elderly.

Kao's creating value

At Kao, we implement initiatives to support the health of employees and their families in cooperation with the Kao Health Insurance Society. We aim to improve our corporate activities by helping to increase the number of healthy employees and family members, and by creating lively and spirited workplaces.

We continue to endeavor to limit excessive increases in medical expenses through preventive initiatives including the promotion of lifestyle improvements and active implementation of various health guidance measures. We are focusing our efforts on the control of long working hours through promotion of modulated work styles and mental health training for managers from the perspective of promoting pleasant workplaces.

Risks related to realization of our vision by 2030

The increase in senior employees brings with it the risk of an increase in diseases such as cancer and musculoskeletal disorders in addition to the risk of lifestyle-related diseases.

Opportunities related to realization of our vision by 2030

Health promotion programs for Kao employees are also made available for external use and are being deployed in the promotion of health in local communities and other workplaces. We hope that the initiatives at Kao will have a positive influence on local communities and society as a whole, and contribute to increased lifespans and a healthier society.

Contributions to the SDGs



Policies

The Kao Health Declaration

To spend every day in lively good health

We aim to become a company which inspires engagement with the promotion of healthy bodies and minds alongside our customers while helping to realize healthy and enriched lives through the creation of lively and spirited workplaces

Cultivation of employees with high health literacy

We are working to make our health promotion activities more visible, engaging in Health and Productivity Management using the PDCA cycle to increase employee health, with the aim of increasing the number of employees with high health literacy.

We consider employees with high health literacy as the following employees:

1. Reviews and improves lifestyle independently, based on health check-up results.
2. Consults with private physicians in regard to health check-up results as needed rather than just consulting occupational physicians.
3. Maintains awareness of their mental health, and confers with appropriate professionals as needed.

Five health promotion initiatives

Rather than merely fulfilling the minimum requirements for health management that we are required to meet as a company, we implement health promotion in line with the five core themes below. Health promotion refers to the independent maintenance and improvement of employee's own health.

1. Lifestyle diseases
2. Mental health care
3. Smoking cessation
4. Cancer
5. Women's health

Framework

Increase the visibility of the Health Promotion Management System As part of this initiative to increase visibility, we have, since 2009, provided 18 health consultation rooms nationwide with a statistical summary of health data not specified individually (medical interviews, health check-ups, occupations, diseases, etc.).

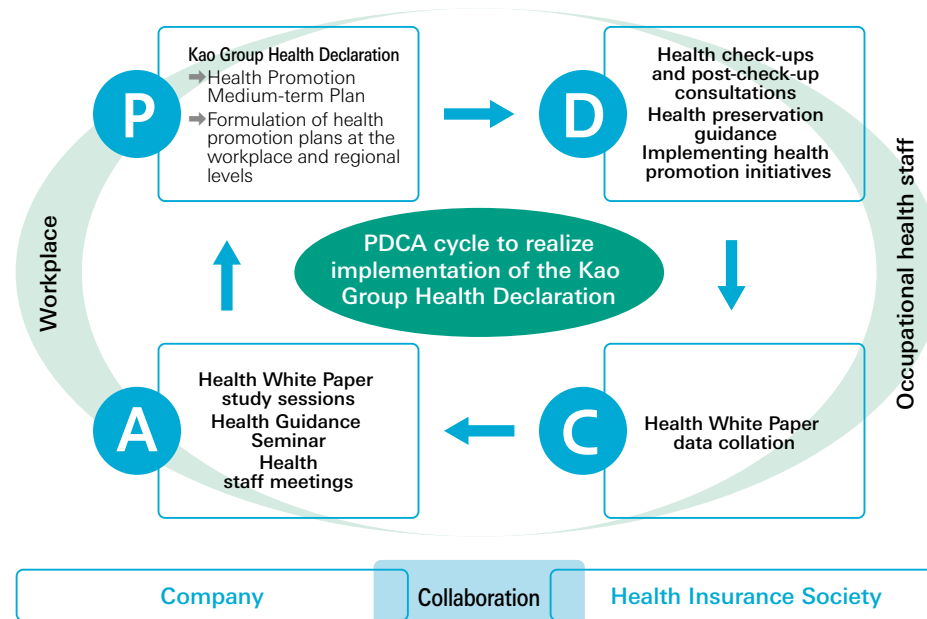
Each health consultation room then drafts and implements a health services plan based on the health data for their respective regions.

Since 2009, we have held annual White Paper on Health Seminars so that employees in charge of Human resource and General Affairs and occupational health nurses can learn together methods of analyzing the various types of health data and of formulating measures.

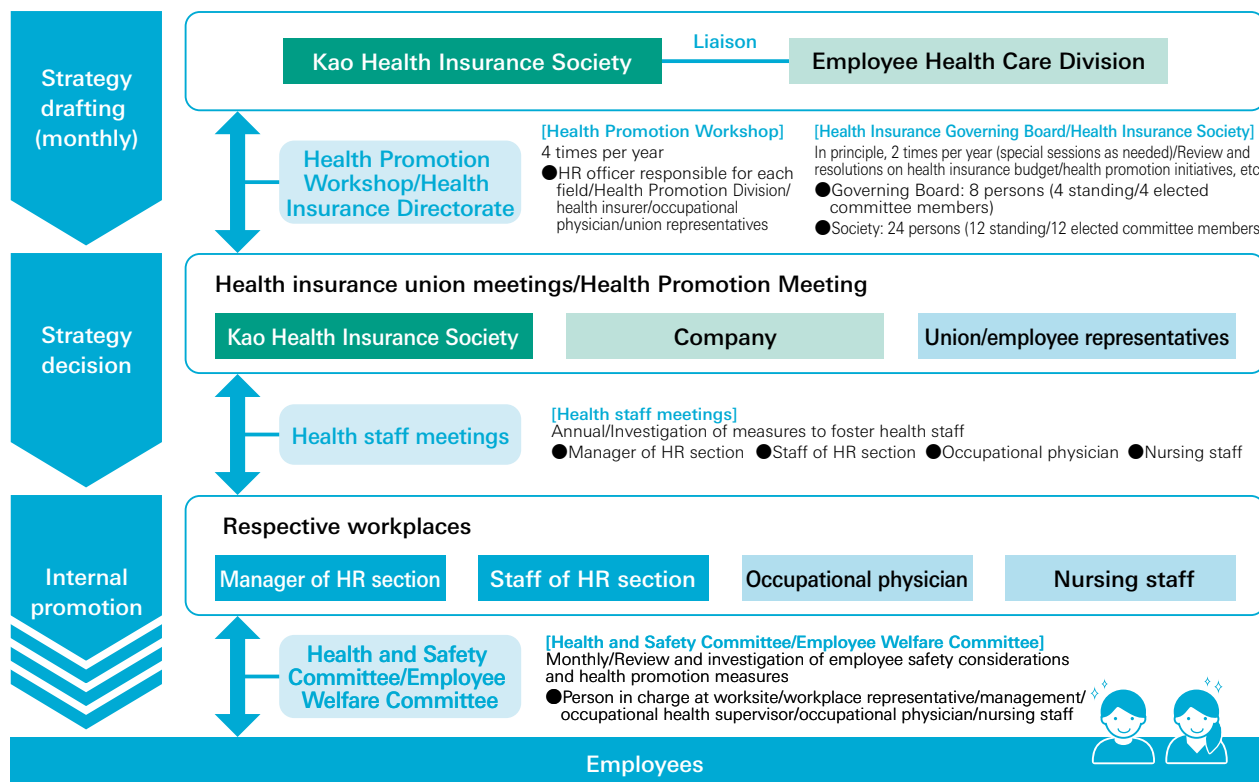
Systematization of the health promotion framework

Health promotion strategy planning is implemented in an integrated manner between Kao and the Health Insurance Society, with discussions conducted in regular monthly meetings. Major strategies are finalized at a company-wide Health Promotion Committee meeting after consideration by working groups and, the committee members of the Kao Health Insurance Society with employee representatives. The promotional strategy is implemented at each worksite and Group company by the manager and staff of the HR section along with occupational physicians and nursing staff.

Health Promotion Management System



Health promotion framework



Education and promotion

For employees

- The Kao Group Health Declaration is distributed to all employees with proclamations on Health and Productivity Management also being disseminated. These include President-issued directives for: Promotion of Health and Productivity Management in the group as a whole, with employee health as the foundation for Group growth; as well as The President will set and put into practice health targets. Individual employees are encouraged to set their health targets for the year and put these into practice.
- Various on-site campaigns, seminars and health promotion activities are deployed in line with the five core initiatives.

Deployment of company-wide health promotion activities

Content	Performance in 2018
Spring Walking Campaign	6,315 participants (including family members)
Smoking-Cessation Campaign	286 participants
Provision of health information by such means as bulletins and posters	Twice a year, reaching around 26,000 people

Deployment of health promotion activities at all worksites (planning of events/seminars/campaigns)

Content	Performance in 2018
Lifestyle disease-related: exercise and nutrition seminars, strength tests, health fairs, lectures by occupational health practitioners, etc.	Held 120 times, with a total of 24,084 participants
Women's health: women's seminars, change-of-life seminars, turning 30 milestone course, dietary improvement seminars	Held 13 times, with a total of 1,363 participants
Mental health care: mental health courses, mental health training seminars for beauty advisors, new employees and newly promoted employees	Held 30 times, with a total of 6,407 participants

Cultivation of health staff

- Annual health staff meetings are held to build consensus with regard to strategies and facilitate sharing of information. Managers and staff of HR sections, along with occupational physicians and nursing staff, attend the meetings.
- We implemented White Paper on Health Seminars to provide an opportunity to learn about how to understand health data and the formulation of occupational health plans, as well as holding Health Insurance Instruction Feedback Sessions aimed at improving health instruction by nursing staff.



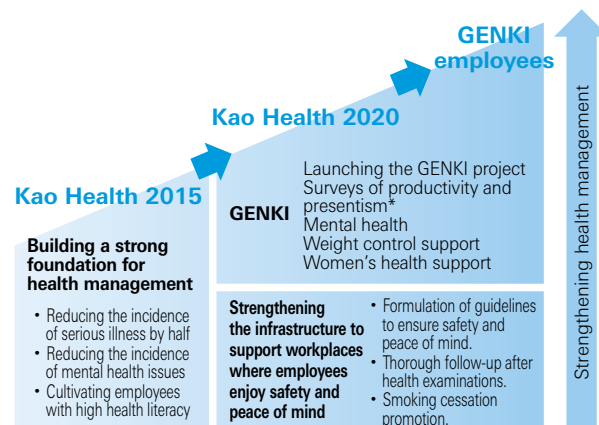
Topics for discussion at health staff meetings

Mid- to long-term targets and performance

Mid- to long-term targets (Kao Health 2020)

In 2017, we formulated the Kao Health 2020 mid-term health-related plan. This plan aims to cultivate GENKI (Healthy) employees by further enhancing health management.

Kao Health 2020



Aiming to achieve a further enhancement of health management by cultivating healthy employees who are capable of leading change, and strengthening the infrastructure to support workplaces where employees enjoy safety and peace of mind

* Presentism

Coming to work while sick or ill, and having reduced working competency and productivity as a result.

Anticipated benefits from achieving mid- to long-term targets

Cost reductions or profit increase

- Prevention of manpower loss due to decreases in long-term absenteeism.

- Reduction in costs of specific health guidance due to decrease in numbers of employees receiving specific health guidance.
- Enhanced productivity from increase in highly motivated employees.

Impacts on society

- Enhanced productivity and provision of improved products and services to society.
- Provision of exemplary case studies in promotion of health management to society.

Performance in 2017*

Employee health promotion status

Item	Performance in 2017
Percentage of employees undergoing periodic health examinations	100%
Percentage of employees who underwent follow-up examinations	91.3%
Percentage of employees who eat breakfast at least three times a week	male employees: 77.2%; female employees: 74.3%
Percentage of employees who exercise at least once a week	male employees: 55.9%; female employees: 31.8%
Percentage of employees who get adequate sleep	male employees: 68.4%; female employees: 63.7%
Percentage of employees who do not smoke	male employees: 70.5%; female employees: 80.0%
Percentage of employees who are at risk of developing metabolic syndrome (35 and older)	male employees: 30.8%; female employees: 6.4%
Percentage of employees receiving specific health guidance	male employees: 18.1%; female employees: 6.6%
Specific health guidance implementation rate	71.6%

* Planned to summarize the performance in 2018 at the end of April 2019.

Collaboration with stakeholders

The effective health services developed at Kao are also made available to workplaces other than Kao, as well as to local communities. These are being put to use in tackling social health challenges such as metabolic syndrome and locomotive syndrome. We are also furthering joint research with external bodies.

The influence of Kao's health services on local communities and society as a whole

Visceral fat checkups

We provide visceral fat measurement services and related lifestyle improvement advice in local communities and at workplaces. In 2018, these services were provided at a total of approximately 130 locations and used by around 15,000 people.

- Visceral fat visualization station (visceral fat measurement sessions organized in collaboration with the Japan Obesity Prevention Society): External 27 sessions with a total of approximately 6,400 participants.
- Lifestyle diagnostic meetings:
Internal: 30 locations with approximately 2,400 participants
External: 68 locations with approximately 6,600 participants

Awareness of Smart WASHOKU

We have also been working to spread awareness of the Smart WASHOKU dietary method for eating well without increasing visceral fat.

- Workshops for public health nurses, nutritionists and other professionals: 8 external sessions implemented, with 220 participants.
- Serving of Smart WASHOKU in employee canteens: implemented internally at 11 locations, and externally at 8 locations

Get walking program

As part of a program to encourage physical activity and strengthen communication, we have distributed our unique HocoTouch pedometer devices and hold Basic Walking Capabilities Testing Sessions to provide detailed analysis of walking "quality."

- HocoTouch:
Internal spot locations: 67 locations with approximately 8,200 participants.
External contracted locations: 20 locations with 124 spots and approximately 3,600 participants.
- Basic Walking Capabilities Testing Sessions
Internal: 6 sessions with approximately 500 participants,
External: 1 session with approximately 70 participants.

Health insurer information exchange with other corporations

We implement information exchange at meetings and seminars hosted by the General Incorporated Payer's Association for Better Healthcare (PAB). This includes identifying and discussing issues relating to health insurance, and the presentation of case studies of improvement efforts. The results achieved through these exchanges of information are presented and reported on at PAB's Annual Conference.

Expansion of consortium projects focused on the senior citizens

We are engaged in collaborative projects with five health insurers, including the Japan Soap and Detergent Association, as part of our health initiatives to connect promotion of senior-tier health with local authorities.

- Lifestyle habits survey and personalized advice sheets for persons who have not undergone health screening: 231 participants (72%).
- Lifestyle habits improvement and prevention program provided by specialists: 48 participants (21.6%).
- Needs survey and identification of challenges toward cooperation on health with local governments: 234. Responses from local authorities (82.9%).

Joint research with Center of Healthy Aging Innovation (COI), Hirosaki University

Since 2015, we have participated in planning at the Center of Health Aging Innovation (COI), Hirosaki University, located in Aomori Prefecture, a prefecture reputed to have the lowest life expectancy in Japan. We have conducted social implementation experiments for our health services as support for daily health promotion at companies involved with health management. To date we have confirmed the effects of Smart WASHOKU and prevention of metabolic syndrome through visceral fat measurements at the Aomori Bank Ltd., with a paper on this singled out by the Journal of Japan Society of Nutrition and Food Science.

In 2018, we introduced the Kao walking support systems to the Hirosaki City taxi company Hokusei Kotsu Co., Ltd., and as a result were able to increase the number of steps and confirm the prevention of metabolic syndrome which accompanied this increase in walking.

Our initiatives

Launching the GENKI project

We are promoting the GENKI project to help employees and their family members stay healthy, as part of the implementation of our Mid-term Plan 2020 (K20). GENKI involves the provision of health management solutions that make effective use of the group's healthcare know how, technologies, and products to our employees and their families.

Events and activities

Smart WASHOKU

Smart WASHOKU is a dietary method developed by us for eating well without increasing visceral fat levels. Rather than focusing on the overall quantity of food consumed, the Smart WASHOKU approach emphasizes three key points—(1) the ratio of protein to fat, (2) the ratio of dietary fiber to sugar, (3) the ratio of Omega 3 to fat—to provide a diet that enables people to consume plenty of amount while still keeping their visceral fat level down.

- Smart WASHOKU was provided as a lunch menu at employee canteens at 11 work sites in Japan.
- 11 Occupational physicians and nursing staff attended Smart WASHOKU master-classes. Total 56 personnel have received Smart WASHOKU Master certification. This certification will be used in future health guidance and health education activities targeting Kao personnel.
- Provision of Smart WASHOKU booklets to our employees as part of dietary education. Activities will be implemented so that our employees can also learn about the Smart WASHOKU approach.
- Published the Golden Shape Up (Comparison) Recipe Book (publishers Bungeishunju, Ltd.) containing Smart WASHOKU recipes and used this in dietary education for employees (for 1,702 persons).
- Held the Smart WASHOKU cooking class for families at ABC Cooking Studio (administered by ABC Cooking Studio Co.,

Ltd.). 60 participants (employees and their families).

Visceral Fat & Lifestyle Checkups

Visceral Fat & Lifestyle Checkups help employees to find out how much visceral fat they have, which in turn can help them to make improvements to their lifestyle in the future.

- Visceral Fat & Lifestyle Checkups were held at 30 work sites, branch offices, and stores in Japan, with 2,300 participants.

HocoTouch Pedometer Gait Measurement

We hold Gait Measurement at which analysis of how employees walk makes it possible to gauge their "walking age" and their future living functions risk. We also rent out HocoTouch pedometer device, a unique device developed by Kao, which can stimulate improvements in daily living habits.

- Gait Measurements were held at 6 Kao workplaces. 500 people took part in the gait testing.
- HocoTouch devices were rented out for use at 67 spot locations by 8,200 personnel. 57% continued to use the devices, of which 66% achieved Rank A walking steps and speeds over one day or more.

Health-related events using *Healthya*

We are working to encourage wider participation in sports- and health-related events at workplaces in

Japan. Event participants are presented with a free bottle of *Healthya*. We also held a program to help employees get healthy using *Healthya* at Kao Headquarters titled the Challenge *Healthya* Program.

- At 28 workplaces there were a total of 93 events, with 13,539 participants.



Smart WASHOKU is provided on the lunch menus at employee canteens



Smart WASHOKU cooking classes where employees can participate with their families

Campaigns and promotional activities

We implement company-wide health-related campaigns aimed at fostering the development of a healthy workplace ethos.

Weight-loss challenge

This campaign encouraged employees to try to lose 2kg in weight over the 42-day period between February 1 and March 14 (except employees with a BMI of less than 19).

- A total of 1,925 employees took part (representing a participation rate of 8.8%), of which 474 (24.6% of participants) succeeded in losing at least 2kg.
- Smart WASHOKU booklets were distributed to coincide with the campaign. Smart WASHOKU lifestyle implementation promotion.

Healthya Walking Challenge

This campaign encouraged employees to walk every day and drink a bottle of our *Healthya* every day over the 91-day period between April 1 and June 30.

- A total of 6,315 employees and their families took part (representing a participation rate of 18.2%), of which 32.3% of the 991 survey respondents succeeded in losing weight, with 84.2% reported that they had gotten into the habit of walking.

Your Weight Reduction Challenge (for employees who received specific health guidance in 2017)

This campaign encouraged employees to try to lose weight over a 42-day period two months prior to their annual health examination.

- This has been implemented 5 times, with 467 participants, of which 70 (15%) achieved significant weight-loss results.

Women's health support

We work to help prevent health issues that particularly affect women, and we have put in place consultation programs to help women obtain advice

about health concerns.

- Distributed the SUKYOYAKA Women's News bulletin in January, April, July and October.
- Occupational physicians provided health consultation tailored to women at the Women's Health Consultation Service.

Survey on productivity and presenteeism

We have followed up on the factors leading to presenteeism that can bring negative impacts on productivity and are considering appropriate response strategies.

- A survey was implemented to examine the key factors behind employee performance and those behind presenteeism.



FUN + WALK *Healthya* Walking Challenge



Women's health seminars

Mental health care

We are promoting initiatives for increased effectiveness of preventive measures using statutory stress checks for employees in Japan.

Nursing staff promptly follow up on employees with high levels of stress who are assessed as requiring emergency responses in light of their responses to these stress tests. In addition, follow-up is available from nursing staff or outside EAPs (employee assistance programs) for employees who are not assessed as requiring emergency follow-up but who nonetheless have high levels of stress whether or not they indicate a wish to arrange a consultation.

We have also held briefings based on stress check group analysis at company and department levels and those at health consultation rooms. We have stipulated standards for workplaces requiring priority responses to further initiatives to improve the workplace environment.

We have multiple consultation desks (including external EAPs, internal counselors, health consultation rooms for each work site and subsidiary, etc.) that offer a range of consultation services. We also systematically implement training such as self-care training and training aimed at managers.

In addition, in the sales area, we implement self care training for all employees led by nursing staff and internal counselors in the sales domain.

Mental health care projects implemented in 2018

Item	Performance in 2018
Stress checks participation ratio	96.9%
High stress rate	1.4% increase
Training for managers	Held 9 sessions
Self-care training	Held 24 sessions
External EAP usage rate (number of usage/number of target employees)	Telephone: 170 cases; e-mail: 1,789 cases
Consultations with internal counselors (focused on career interviews)	12,563 consultees

Strengthening the infrastructure to support workplaces where employees enjoy safety and peace of mind

We are implementing several measures aimed at strengthening the health management framework and realizing workplaces where employees can enjoy safety and peace of mind.

Smoking cessation promotion

On the basis of the Kao Group Smoking-cessation Initiatives policy which was disseminated within the group in May 2016, we announced a new initiative that will prohibit smoking during work hours starting from January 2018.

- The Kao Group Smoking-Cessation Campaign was implemented in January and May 2018.
A total of 285 employees participated (of which 104 succeeded in stopping smoking). (The number of participants increased by 4% compared to the previous year.)
- Kao Health Insurance Society-subsidized smoking cessation treatment was provided for 22 people.
- Online smoking cessation program led by Kao Health Insurance Society implemented.
78.7% of the 47 participants had continued to not smoke for 6 months.



No smoking during work hour campaign poster

Expansion of health checks for employees working long hours

While we are promoting reductions in long working hours at Kao, some employees still find themselves working long hours during busy periods. To address the fatigue and stress experienced by employees with long working hours, we have undertaken to implement more intensive health checks as detailed below. These will facilitate early detection of symptoms and identification of potential distress signals from such individuals.

1. Expansion of scope for meetings with occupational physicians
Scope: Persons logging over 100 hours work outside normal working hours per month ⇒ Over 80 hours
2. Further introduction of web health checks (simple diagnostics)
Scope: Person logging over 80 hours work outside normal working hours per month ⇒ Average of over 60 hours for 2 to 6 months

Kao's approach

Kao stipulates basic occupational safety and health criteria to maintain a workplace environment in which all employees can work with peace of mind. We also implement various activities to ensure the safety and health of all employees.

Kao's creating value to address social issues

Social issues we are aware of

Kao as a company with several large-scale plants has increasingly heightened occupational safety needs in the context of accidents at chemical plants, and the many natural disasters that have occurred recently.

Kao's creating value

Kao has defined an activities policy for occupational safety and health as part of the Kao Responsible Care Policy and is endeavoring to ensure the safety and health of all employees of the group. We achieve this by focusing on and implementing activities in the areas of risk assessment for operations/ machinery and chemical substances, and by the consistent implementation of and follow-up for health check-ups, as well as mental health measures.

We will deliver workplaces which provide job satisfaction and peace of mind both for the employees themselves and for their families, by creating safe, healthy and pleasant working environments.

Risks related to realization of our vision by 2030

- Risk of stoppages to operations due to occupational illness resulting from critical disasters or compromised operating environments.
- Risk of loss of societal trust in the company due to the above

Opportunities related to realization of our vision by 2030

We actively work, by means of thorough risk assessments, to eradicate the factors which threaten the occupational health and safety of all employees, thereby creating workplaces where they can work in safety, health and peace of mind.

Contributions to the SDGs



Policies

Activities to ensure occupational safety and health are clearly stipulated in the Kao Responsible Care Policy. This is a policy to "eradicate occupational accidents and reduce potential risks, as well as provide comfortable working environments and promoting employee health." Accordingly, when occupational accidents occur, we carefully investigate the accident or disaster, and identify and analyze the causes. The Policies results of the analysis are shared throughout the group to help prevent similar accidents from occurring again in the future, thereby protecting our employees while maintaining safe and stable operations.



→ Kao Responsible Care Policy
www.kao.com/global/en/sustainability/environment/statement-policy/policy/responsible-care/

Framework

The Kao Responsible Care (RC) Policy and the promotion framework and activities can be found on the following page.



→ p. 195 Governance > Responsible care activities

Education and promotion

We implement education, drafting educational plans related to occupational safety and health for employees and temporary workers at all workplaces. We also ensure that health and safety training is conducted for new hires or reassigned personnel at the location of deployment. As part of these activities, we list up the necessary operations for special education and ensure that the necessary training is implemented.

By implementing education, we are able to share information relating to safety and health in the workplace, and are able to undertake activities aimed at achievement of safety and health targets.

We also publish an annual safety message from the President and a safety poster, to improve awareness of safety issues.



→ p. 184 Corporate Culture > Process Safety and disaster prevention / Education and promotion

Collaboration with stakeholders

To ensure subcontractors' safety, we also hold safety and disaster prevention events at manufacturing and research premises and logistics bases. We also promote collaborative safety activities, sharing safety information such as occupational accident case studies and countermeasures within the group with subcontractors on a monthly basis.

The Kao Logistics Division also holds monthly safety and quality meetings with transportation contractors.

We also hold annual information sharing meetings with transportation contractors and arrange for them to collaborate in our activities to eliminate work-related traffic accidents.

Mid- to long-term targets and performance

Mid- to long-term targets

We aim to become a company which meets top-level global standards for health and safety by 2020.

We have set a target of achieving the complete elimination of deaths and serious lost time accidents, and a target for reducing the lost time accident frequency rate (to below 0.10), and we also aim to completely eliminate 100% negligence accidents causing bodily injury in relation to work-related traffic accidents by 2020, for both employees and subcontractors.

Anticipated benefits from achieving mid- to long-term targets

Cost reductions or profit increase

Mitigation of unnecessary expenses and reductions in overall costs, leading to higher revenues with the sound implementation of business activities achieved by having all employees working in good health.

Impacts on society

Stable provision of products with sound implementation of business activities by having all employees working in good health. This can also help facilitate the stabilization of product prices

Performance in 2018

We implemented activities from the two perspectives of “Eradication of occupational accidents” and “Creating a pleasant working environment and improving employees’ health.”

Specific activities to eradicate occupational accidents have focused on equipment and operational risk assessment for existing facilities. We have also promoted improvements using near-miss incident proposals, risk assessment and incoming safety inspections in advance of operation of newly-installed

equipment, and equipment safety measures and the prevention of equipment-related incidents by ensuring thorough awareness of and compliance with rules. Activities have also focused on measures to prevent slip and fall accidents involving stairs, etc., and work-related traffic accidents, etc.

In the area of creating a pleasant working environment and improving employee health, we have strengthened management of the working environment, ensuring effective implementation and

follow-up of health check-ups, undertaking health promotion activities, stress checks, and implementing risk assessment for chemical substances.

In addition, at the Health and Safety Committee meetings which are regularly held at each workplace, we report on activity plans as well as giving performance reports and disseminate this information to employees.

2018 Targets and performance (Kao Group)

Item	Indicator	Scope	2016	2017	2018	
			Results	Results	Target	Results
Occupational accidents	Death and serious lost time accidents*1 (persons)	Including both regular employees and temporary workers (Kao Group)	0	1	0	0
		Breakdown				
		Japan	0	1	—	0
		Asia	0	0	—	0
		Americas	0	0	—	0
		Europe	0	0	—	0
		Subcontractors (Kao Group)	0	0	0	0
		Breakdown				
		Japan	0	0	—	0
		Asia	0	0	—	0
	Lost time accidents frequency rate*2	Including both regular employees and temporary workers (Kao Group) <input checked="" type="checkbox"/>	0.67	0.55	0.20 or less	0.77
		Breakdown				
		Japan	0.47	0.36	—	0.54
		Asia	0.31	0.34	—	0.19
		Americas	3.20	3.57	—	4.18
		Europe	4.12	2.79	—	4.66
		Including both regular employees and temporary workers (Reference: Member companies of Japan Chemical Industry Association)	0.35	0.36	—	—
		Subcontractors (Kao Group) <input checked="" type="checkbox"/>	0.56	0.41	0.20 or less	0.40
		Breakdown				
		Japan	0.65	0.55	—	0.55
	Total accident frequency rate*3	Asia	0.13	0.10	—	0.11
		Americas	0.00	0.00	—	0.00
		Europe	5.81	4.21	—	7.06
		Subcontractors (Reference: Member companies of Japan Chemical Industry Association)	0.54	0.49	—	—
		Including both regular employees and temporary workers (Kao Group)	1.96	1.87	1.08 or less	2.43
		Breakdown				
		Japan	1.93	1.70	—	2.20
		Asia	0.80	1.02	—	1.37
		Americas	4.79	5.95	—	8.36
		Europe	6.33	6.15	—	6.86

*1 Serious lost time accidents:

Accidents in which there is a continued loss of physical function after treatment for the injury has been completed (with a loss of physical function of Level 5 or higher.).

*2 Lost time accident frequency rate:

Number of persons dead or seriously injured in occupational accidents per million hours worked (including only accidents involving at least one lost work day and also the loss of a part of the body or a bodily function.).

*3 Total accident frequency rate:

Number of persons injured in occupational accidents (including accidents without lost work days) per million hours worked.

2018 Targets and performance (Kao Group)

Item	Indicator	Scope	2016	2017	2018	
			Results	Results	Target	Results
Occupational accidents	Total accident frequency rate*3	Subcontractors (Kao Group)	1.32	1.18	0.74 or less	1.21
		Breakdown				
		Japan	1.49	1.18	—	2.11
		Asia	0.77	0.71	—	0.40
		Americas	0.00	0.00	—	0.00
		Europe	7.75	12.62	—	10.59
	Severity rate*4	Including both regular employees and temporary workers (Kao Group)	0.02	0.10	—	0.05
		Breakdown				
		Japan	0.01	0.13	—	0.03
		Asia	0.01	0.01	—	0.14
		Americas	0.10	0.08	—	0.06
		Europe	0.06	0.04	—	0.07
		Including both regular employees and temporary workers (Reference: Member companies of Japan Chemical Industry Association)	0.01	0.04	—	—
		Subcontractors (Kao Group)	0.03	0.01	—	0.01
		Breakdown				
		Japan	0.05	0.02	—	0.01
		Asia	0.01	0.00	—	0.01
		Americas	0.00	0.00	—	0.00
		Europe	0.05	0.06	—	0.19
		Subcontractors (Reference: Member companies of Japan Chemical Industry Association)	0.10	0.18	—	—
Traffic accidents	Number of employees who experienced lost work days due to occupational diseases (persons)	Including both regular employees and temporary workers (Kao Group)	—	—	—	0
		Breakdown				
		Japan	—	—	—	0
		Asia	—	—	—	0
		Americas	—	—	—	0
		Europe	—	—	—	0
	100% negligence accidents causing bodily injury (no. of accidents)	Sales and logistics (Japan)	24	11	0	16
	Accidents other than 0% negligence accidents per 100 vehicles*5		7.10	7.64	5.0 or less	6.43

*3 Total accident frequency rate:

Number of persons injured in occupational accidents (including accidents without lost work days) per million hours worked.

*4 Severity rate: Number of lost days/ total working hours × 1,000.

*5 Accidents other than 0% negligence accidents per 100 vehicles: Number of traffic accidents other than 0% negligence / No. of vehicles in fleet × 100.

Targets for 2019

In 2019 we will continue to make efforts with the prevention of accidents and disasters as our target. Note that traffic accident targets are for Japan only.

2019 Targets and performance (Kao Group)

Item	Scope	Indicator	2019 targets
Occupational accidents	Regular employees and temporary workers	Death and serious lost time accidents*1 (persons)	0
		Lost time accidents frequency rate*2	0.16 or less
		Total accident frequency rate*3	0.83 or less
	Subcontractor employees	Death and serious lost time accidents*1 (persons)	0
		Lost time accidents frequency rate*2	0.14 or less
		Total accident frequency rate*3	0.68 or less
Traffic accidents	Regular employees	Number of employees who experienced lost work days due to occupational diseases (persons)	0
		100% negligence accidents causing bodily injury (no. of accidents)	0
		Accidents other than 0% negligence accidents per 100 vehicles*4	4.4 or less

*1 Serious lost time accidents: Accidents in which there is a continued loss of physical function after treatment for the injury has been completed (with a loss of physical function of Level 5 or higher.).

*2 Lost time accident frequency rate: Number of persons dead or seriously injured in occupational accidents per million hours worked (including only accidents involving at least one lost work day and also the loss of a part of the body or a bodily function.).

*3 Total accident frequency rate: Number of persons injured in occupational accidents (including accidents without lost work days) per million hours worked.

*4 Accidents other than 0% negligence accidents per 100 vehicles: Number of traffic accidents other than 0% negligence / No. of vehicles in fleet × 100.

Our initiatives

Status of occupational accident occurrences

In 2018, a total of 192 regular employees and temporary workers were involved in occupational accidents, of which 61 persons lost work days as a result, with no occupational illnesses resulting in lost work days recorded. For occupational accidents involving subcontractors, the number of persons affected was 36, of which 12 suffered injuries resulting in lost work days.

The most common types of accidents among regular employees and temporary workers were slip and fall accidents due to carelessness and insufficient confirmation (61 employees), accidents involving reactionary action (28 employees) and collisions (18 employees). Measures are being promoted with an emphasis on slip and fall accidents, due to such accidents having the highest incidence rate.

Risk assessments of chemical substances

As many kinds of chemical substances are handled at our manufacturing locations, the risk of environmental pollution is not negligible. With this in mind, we evaluate the impacts on people and the environment and make provisions to reduce these risks. In addition, we conduct a priori evaluations of impacts on people and the environment when expanding and reconstructing facilities.

These measures have been implemented in response to the U.N.'s Strategic Approach to International Chemicals Management (SAICM) initiative.

Expansion of the "no accidents with lost work days award system" improving safety awareness

Since 2016, the "no accidents with lost work days award system," which had previously been limited to plants in Japan, was expanded to include plants outside Japan, in order to further improve safety awareness. In 2018, three plants outside Japan received awards.

"No accidents with lost work days awards" presented in 2018

Region	Company / Plant	Stage
China	Huludao Jinxing Casting Materials Co., Ltd	Stage 1 (3 years)
	Kao (Shanghai) Chemical Industries Co., Ltd.	Stage 1 (3 years)
Malaysia	KPG (Kao Penang Group)	Stage 1 (3 years)

Award criteria

Stage	Award criteria
1	3 years
2	5 years or 5.4 million hours
3	7 years or 8.1 million hours
4	10 years or 12.2 million hours
5	15 years or 18.3 million hours
6	25 years or 30.0 million hours



China: The award for completion of Stage 1 to Huludao



Malaysia: The award for completion of Stage 1 to KPG

Sharing safety messages globally

With the aim of raising safety awareness worldwide, the safety messages on the poster were translated into local languages in 2017. Safety posters featuring the company president were deployed in sites both within and outside Japan and safety messages were shared worldwide.

In 2018 we put out the call for messages worldwide and drafted a safety poster with the message from Huludao, China, which awarded the Grand Prize.



The safety poster featuring the company president were deployed in 11 different local languages (Clockwise from top left: Japanese, English, Chinese (simplified), German)



Safety Message Grand Prize awarded to Huludao

Creating a pleasant working environment for employees

We strive to create a pleasant working environment in all workplaces, and conduct periodic working environment measurement and implement improvement and maintenance to ensure compliance with each country's workplace environment standards.



Reduction of operational loads and improved operational efficiency through the introduction of robots

In 2016, we equipped humanoid helper robots in flexible small lot production lines at the Toyohashi Plant, with these robots employed in packaging work in collaboration with personnel.

In addition to operating without time constraints, they are notable for maintaining consistent accuracy, even when performing tandem operations involving manual work (wrapping) and visual observation (lots/sorting). Meanwhile, operations which require complicated and flexible judgements, such as recovery from technical hitches, external screening for imperfections and blemishes, and replenishing materials with an eye to the production line as a whole, are domains for which personnel are best suited. We are creating streamlined production systems and realizing workload reductions for personnel by deploying operations which bring together the respective areas in which robots and human operators are best suited.



Humanoid helper robots

Kao's approach

Kao implements process safety and disaster prevention activities with the aim of ensuring the safety of employees and maintenance of safe, stable operations, stipulating matters relating to prevention of accidents, emergency response and strengthened security. Through these activities, we aim to completely eliminate accidents.

Kao's creating value to address social issues

Social issues we are aware of

As we have several large-scale plants, its process safety and disaster prevention needs are increasingly heightened in the context of accidents at chemical plants and the many natural disasters that have occurred recently.

Kao's creating value

Kao, as a company with large-scale chemicals plants, will provide regional communities in which local residents can live in peace of mind and employees at worksites can operate in safety without fear of accidents.

Risks related to realization of our vision by 2030

- Stoppages to stable operations from major accidents impacting regions in the vicinities of plants, natural disasters, or other factors, and accompanying loss of societal trust in the company

Opportunities related to realization of our vision by 2030

- Instilling of trust in the company and enhancement of the brand image by implementation of thorough process safety and disaster prevention initiatives to ensure the safety of communities and employees

Contributions to the SDGs



Policies

Activities to ensure process safety and disaster prevention are clearly stipulated in the Kao Responsible Care Policy. This is a policy to "prevent fires, explosions and chemical spills while maintaining safe and stable operations, and the appropriate facilities and periodical training to prepare for emergency situations such as natural disaster and security issues." We are endeavoring to prevent accidents and disasters in accordance with this policy.



Kao Responsible Care Policy
www.kao.com/global/en/sustainability/environment/statement-policy/policy/responsible-care/

Framework

Our daily activities for process safety and disaster prevention are conducted as part of the Responsible Care promotion system. In particular, we have built a framework to keep track of accidents or disasters when they occur, through our global emergency reporting network. In addition, when a large-scale disaster such as a major earthquake occurs, we will establish an Emergency Response Team Organization headed by the President. Together as a Group, our initial response places top priority on the safeguarding of human life as we implement measures including our Business Continuity Plan (BCP)*.

* Business Continuity Plan (BCP)

A plan for continuing key corporate activities through procedures to decide in advance which operations and functions should be continued, and which methods should be applied to continue activities, assuming various situations that cause the interruption and/or shutdown of business activities due to various events and the factors behind their occurrence.



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Education and promotion

Kao creates various educational programs for process safety and disaster prevention. For example, at our Monozukuri Training Center, by recreating incidents such as technical glitches and hazardous situations we are endeavoring to ensure that the necessary knowledge and skills are passed on to younger technicians who will be responsible for production sites.

Promising leaders of the next generation within and outside Japan receive eight months of training to learn about production technology and the spirit of *Yoki-Monozukuri* at Kao's Global Techno School in the Wakayama Plant. This training includes process safety and disaster prevention. In addition, an annual disaster prevention message is posted, and an earthquake and disaster prevention handbook is published to improve disaster awareness. We are also endeavoring to ensure that the efficacy of past drills is not weakened by the passage of time, by designating a Safety Day on days when accidents occurred in the past.



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→ Education and promotion
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Collaboration with stakeholders

- We implement joint drills one or more times per year aligned with regions with, for example, fire stations and local corporations, in order to keep any damage caused by accidents and disasters which occur to the bare minimum. We are endeavoring to improve the overall level of our disaster prevention activities.
- We jointly implement drills one or more times per year premised on terrorist attacks in cooperation with local police for our production sites overseas, on an as-needed basis.

Mid- to long-term targets and performance

Mid- to long-term targets

We actively strive to realize our goal of complete elimination of on-site fires, explosions, leakages and logistics-related leakage accidents.

Anticipated benefits from achieving mid- to long-term targets

Cost reductions or profit increase

Mitigation of unnecessary expenses and reductions in overall costs, leading to higher revenues with sound implementation of business activities from safe operations at all worksites.

Impacts on society

Ensuring the stable provision of products with sound implementation of business activities from safe operations at all worksites. Moreover, this can facilitate the stabilization of product prices.

Performance in 2018

Performance

In 2018, we implemented thorough Change Management*, risk assessments of chemical facilities, regular inspections and enhanced patrols, for maintenance of safe, stable operations, to eradicate process safety accidents. In addition, detailed implementation specs and plans were also drafted for respective divisions with the targets of enriching disaster prevention drills and enhancing security. There were no leakages (on-site) or logistics-related leakages in 2018. In 2019, we will continue activities directed toward our targets of completely eliminating on-site fires and accidents related to explosion, leakage and logistics-related leakage accidents.

* Change Management: Management activities anticipating and accommodating risks before changes are implemented, along with preventive measures for issues such as failure, defects and accidents.

Targets and performance

Item	Scope	Indicator	2017	2018		2019
			Results	Target	Results	Target
Accidents	Kao Group	Fires, explosions, leakages, etc. (no. of accidents)	6	0	2	0
		Logistics-related leakage* (no. of accidents)	0	0	0	0

* Logistics-related leakage
Accidents involving leakage while products, etc. are being transported.

Overview of accidents in 2018

Type of accident	Small-scale fires: 2 cases
Overview of accident	<ul style="list-style-type: none"> • A fire started by liquid leakage and pyrolysis following degradation of storage container after long-term storage of test reagents used in research. • A fire started after a container for emulsification trials was placed in an IH water base while still hot causing accidental overheating.
Countermeasures being taken	We will implement system management for reagents and review storage locations while also reviewing test equipment.

Our initiatives

Emergency response drills to prepare for large-scale disasters

Besides implementing fire response training and emergency evacuation training at the level of individual workplaces, the group also conducts training on a company-wide basis to prepare for large-scale disasters.

Training in the use of the system for reporting the safety of Kao employees

In 2018, a new Employee Safety Confirmation System was introduced in February, with data inputting drills for the new system targeting all Kao Group employees in Japan designated and implemented for one-day (24-hour) periods in March and September. On the following days, we held a drill for the person in charge for tracing and confirming the whereabouts of employees not accounted for during the data inputting drill premised on an actual earthquake. We will continue to hold drills premised on an actual earthquake as it occurs based on the new system.

Below is an overview of uses of the Employee Safety Confirmation System in natural disasters in 2018. Active deployment of the Employee Safety Confirmation System allowed confirmation of employee safety with no critical human casualties.

Usage of the Employee Safety Confirmation System in 2018

Date	Disaster	Result
Jul. 2018	Northern Osaka Earthquake	Safety confirmation completed for 100% within two days
Jul. 2018	Torrential rain in July 2018	Safety confirmation completed for 100% within two days
Sep. 2018	Typhoon No. 21 (Jebi)	Safety confirmation completed for 100% within two days
Sep. 2018	Hokkaido Eastern Iburi Earthquake	Safety confirmation completed for 100% on the same day
Sep.-Oct. 2018	Typhoon No. 24 (Trami)	Safety confirmation completed for 100% within two days

Company-wide earthquake scenario reporting and communication training

The group is consolidating its organizational units for disaster response in Eastern Japan and Western Japan premised on damage to the Kao Head Office from an earthquake in the Greater Tokyo Metropolitan area. In May 2018, we implemented disaster response drills for organizational units for Eastern Japan with the units on the Tokai, Chubu, Kinki, Chugoku, Shikoku and Kyushu regions premised on a massive earthquake in the Nankai Trough, while in September we repeated these drills for units on site and for Western Japan premised on a major earthquake with its epicenter directly under the Tokyo Metropolitan Area.

During these drills, premised on locations during daytime on weekday, statuses were confirmed by means of IP radio within major disaster response organizational units, and promptly transmitted to Emergency Countermeasure Headquarters, alongside information on statuses of personnel safety and property damage at disaster sites by means of a meeting system using satellite phones and our internal disaster bulletin board and website. Necessary response drills were implemented based on the data from organizational units for disaster response.

In addition, at the September drills premised on a

disaster in the Greater Tokyo Metropolitan area, the Emergency Countermeasure Headquarters, with the Kao President serving as its head, completed training on the entire flow process for disaster response, including transfer drills to a base camp for safe activities, with the participation of the BCP Response Team for production.

The content of drills is being reviewed on an ongoing basis in light of the lessons learned from past training drills.

Emergency evacuation drills based on the scenario that a plant tour is taking place when the disaster occurs

The nine Kao plants in Japan that provide plant tours have prepared protective hoods for use by plant visitors in the event that an earthquake occurs while a plant tour is underway. These plants also implement emergency evacuation drills, with employees taking on the role of plant visitors, to ensure that in the event of emergency visitors can be taken swiftly to a safe place. In the future, we will continue to incorporate drills based on a variety of different scenarios during a plant tour into our annual training plan.



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Implementing an emergency evacuation drill with employees taking on the role of plant visitors

Disaster prevention audits

In 2018, in addition to holding an audit at one plant in Germany, we audited two plants in China and one each in Thailand and Indonesia. Disaster prevention audits cover the state of implementation of disaster prevention operations, and the improvements made to address safety and disaster prevention issues. When issues are identified during audits, appropriate measures are taken to respond to these issues. As a result of these audits, we confirmed that improvements in the safety and disaster prevention levels have been achieved when compared with previous audits.

Initiatives including the implementation of audits by having

dispatched auditors from particular plants to other plants are also continued so that we can improve the levels of safety and disaster prevention at each plant through audit.

Strengthening process safety and disaster prevention

The SCM Division is working to strengthen chemical equipment risk management by identifying latent risks and implementing suitable measures in response, as well as continuing to promote earthquake response measures.

In 2018, measures to prevent naturally occurring fires and those involving low-flashpoint substances which were identified as latent risks in safety assessment of chemicals facilities were completed. We continuously implemented response measures for dust explosions as well as safety measures for polymerization and exothermic reactions and strengthening of the change management for facilities outside Japan. With regard to earthquake response measures, we implemented seismic resistance diagnostics and reinforcement for both buildings and equipment stands, liquefaction prevention measures, and measures to strengthen protection against tsunamis.

High-pressure gas safety inspection, auditing and verification

The Wakayama Plant has been designated an Accredited Safety Inspection Executor* pursuant to the High Pressure Gas Safety Act. In 2018, a safety audit was implemented by the Safety Management Division in August and a safety inspection under the direction of the President, who also serves as head of safety management, was implemented in October. We were able to confirm that there were no issues with regards to process safety activities. In 2018 we also underwent an audit with a Ministry of Economy, Trade and Industry accredited facilities auditor acting as intermediary.

The high-pressure gas equipment at other Kao sites has

safety inspection performed by external inspection bodies. Safety audit and safety verification are carried out in-house, and a serious effort is being made to ensure safe equipment operation.



High-pressure gas safety inspection at the Wakayama Plant

* Accredited Safety Inspection Executor

It is a company or organization authorized by the Minister of Economy, Trade and Industry to perform self-inspection, either while equipment is in operation or while it is out of operation, to verify whether the safety of specified items of equipment conforms to the relevant technical standards pursuant to the High Pressure Gas Safety Act.



Third-party evaluation of safety competency (Wakayama Plant)

In 2018, we held a third-party (Japan Safety Competency Center) evaluation of safety competency for the first time, at the Wakayama Plant. A safety competency evaluation entails confirmation of management status for safe on-site operations of plants, including operational safety, maintenance and construction work. It also confirms that workplace environments with safety as the utmost priority are being cultivated, as well as the vitality of workplaces. Evaluations are completed in five stages to identify strengths and weaknesses in these respective areas, with the aim of encouraging autonomous improvements.

We will continue to draft improvement plans for the items identified as weaknesses and to actively improve on these fronts based on these evaluations.

2018 Our initiatives

Governance

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Basic approach to corporate governance

Our vision by 2030 is to make Kao a company with a global presence. In addition to financial strategies and initiatives including financial results, non-financial strategies and initiatives should be strengthened. It is important that the fruits from those strategies and initiatives are used as investments for sustainable growth. Kao (hereinafter, referred "the Company") has announced that it recognizes ESG initiatives as an investment for the future, not as a cost, and is promoting them. The Company considers good corporate governance as a prerequisite and a driving force for strongly promoting the achievement of such a goal. The Company's basic stance on measures related to corporate governance is to set up and operate a management structure and an internal control system, timely implement necessary measures and achieve accountability so that the Company can swiftly respond to changes, realize efficient management that is sound, fair and highly transparent, and continuously enhance corporate value. The Company views accomplishing such tasks as one of its most important management issues. The Company has been actively engaging in activities to listen to stakeholders' voices and based on input from stakeholders and social trends, it conducts reviews of its corporate governance and implements the necessary measures and improvements, as needed, in an appropriate manner.

Corporate governance reform

Also as for corporate governance, since the early stage Kao has practiced Continuous Innovation, which is one of Values of the Kao Way. To respond to changes in the business environment as well as social demands, the Company has pursued the creation of the most optimal structure. The Company will continue to work on governance reform.

	Governance structure and system	Compensation for executives
1999	<ul style="list-style-type: none"> Introduced EVA® as a management indicator 	<ul style="list-style-type: none"> Short-term incentives: Introduced an EVA® performancebased bonus
2000	<ul style="list-style-type: none"> Established the Advisory Committee (an advisory body for the Board including two outside members) 	
2001	<ul style="list-style-type: none"> Increased the number of Outside Audit & Supervisory Board Members from one to two 	<ul style="list-style-type: none"> Mid- to long-term incentives: Introduced a stock option plan Abolished retirement benefits
2002	<ul style="list-style-type: none"> Introduced Outside Director system (the Advisory Committee was dissolved) Introduced the Executive Officer system 	
2003	<ul style="list-style-type: none"> Established the Committee for the Examination of Nominees for Chairman of the Board and the President and Chief Executive Officer Appointed the president and lower positions as Executive Officers Established the Department of Internal Audit 	<ul style="list-style-type: none"> Established the Compensation Advisory Committee
2006	<ul style="list-style-type: none"> Commenced meetings to exchange opinions between Representative Directors and Audit & Supervisory Board Members Established the Internal Control Committee 	<ul style="list-style-type: none"> Mid- to long-term incentives: Introduced share remuneration type stock options Short-term incentives: Introduced EVA®/sales and ordinary income indicator
2010	<ul style="list-style-type: none"> Established Standards for Independent of Outside Directors /Outside Audit & Supervisory Board Members Established the Sustainability Committee 	
2012	<ul style="list-style-type: none"> Increased the number of Outside Directors from two to three Reduced the number of Directors from 15 to 10 Shortened Directors' term of office to one year 	
2013	<ul style="list-style-type: none"> Increased the number of Outside Audit & Supervisory Board Members from two to three Delegation agreement with Executive Officers 	
2014	<ul style="list-style-type: none"> Established the Committee for the Examination of Nominees for Directors and Executive Officers (Abolished the Committee for the Examination of Nominees for Chairman of the Board and the President and Chief Executive Officer) Reduced the number of Inside Directors to 3, equal to the number of Outside Directors Appointed an Outside Director as the Chairman of the Board 	
2015	<ul style="list-style-type: none"> Established the Committee for Examination of Nominees for Directors (Abolished the Committee for the Examination of Nominees for the Directors and Executive Officers) Commenced evaluation of the effectiveness of the Board of Directors 	
2016	<ul style="list-style-type: none"> Commenced evaluation of the effectiveness of the Audit & Supervisory Board Increased the number of Inside Directors from three to four 	<ul style="list-style-type: none"> Revised Outside Director compensation system to not linked to business performance
2017		<ul style="list-style-type: none"> Mid- to long-term incentives: Performance-based share incentive plan (non-financial indicators included)
2018	<ul style="list-style-type: none"> Commenced regular meetings to exchange opinions between Audit & Supervisory Board Members and Outside Directors Established the ESG committee (the Sustainability Committee was dissolved) 	
2019	<ul style="list-style-type: none"> Commenced evaluation of the effectiveness of the Committee for the Examination of Nominees for Directors Commenced evaluation of the effectiveness of the Compensation Advisory Committee Established the External ESG Advisory Board Increased the number of Outside Directors from three to four 	<ul style="list-style-type: none"> Revised the remuneration limit for Audit & Supervisory Board Members

Corporate governance structure

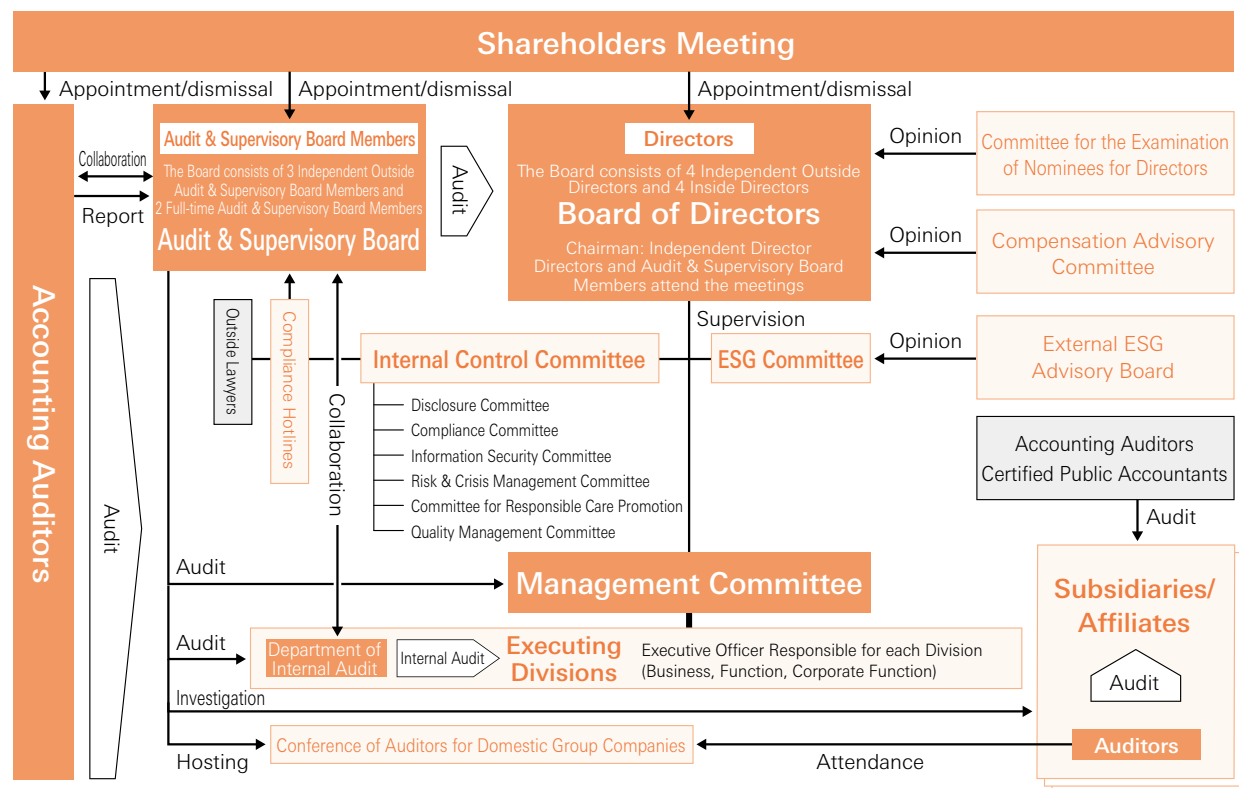
Kao has chosen to be a company with an Audit & Supervisory Board. In company with the Audit and Supervisory Board, the Audit and Supervisory Board Members are obligated to participate in meetings of the Board of Directors, but they do not possess voting rights. Therefore, the Company believes that this allows them to objectively audit the decisions made by the Board of Directors and business execution of individual Directors without being bound by past decisions or adopting a conservative approach.

To better ensure transparency and fairness in the processes for determining Director appointment and compensation, the Company has voluntarily established the Committee for the Examination of Nominees for Directors, composed solely of Outside Directors and Outside Audit & Supervisory Board Members and the Compensation Advisory Committee, made up of Outside Directors, Outside Audit & Supervisory Board Members and Representative Directors.

The Board of Directors maintains a high level of objectivity, with four of its eight members being Outside Directors. At the same time, the Board of Directors is supported by organizations that oversee auditing duties as well as compensation and nomination examinations, thereby realizing a high level of effectiveness. In these ways, the Company has put into place a framework for supervising and auditing its management.

Also, the Company has introduced an Executive Officer system that appoints Executive Officer as chief executive of each division, thereby promoting the separation of supervisory functions and execution functions. In addition, through largely delegating execution authority to the Management Committee, the Company works to speed up the decision-making and execution process.

Corporate governance structure



ESG Committee

To gain the support and trust of all its stakeholders, as a company with a global presence, this committee discusses and determines the direction of Kao's activities pertaining to ESG, aiming to contribute to sustainable development of Kao Group and society.

Internal Control Committee

This committee discusses and determines the direction of the entire Group's internal control systems to ensure the accuracy of financial reporting and achieve cross-organizational integration of functions pertaining to internal control including information disclosure, compliance, information security, risk and crisis management, promotion of responsible care, and quality management with the objective of improving the quality of business operations.

Management Committee

This committee, which is mainly composed of members with the position of Managing Executive Officer or higher who have experience in business execution as persons responsible for core businesses and functions, makes decisions concerning the execution of mid- to long-term direction and strategies that the Board of Directors deliberates on and determines. Delegating wide-ranging authority to the Management Committee, Kao works to speed up its decision-making and execution process.

Directors and Board of Directors

Kao's Board of Directors has secured a balance among knowledge, experience, and skills and a sufficient level of diversity to appropriately carry out the formulation of business strategies and other measures as well as supervise specific business execution. Outside Directors are nominated with emphasis on diverse experience, their knowledge, and a high level of insight obtained from such experience that cannot be obtained from Inside Directors alone. Examples include global experience, experience in managing a company that provides products and services in a different industry from that of Kao, consulting or academic experience, as well as expertise and a high level of insight. In addition, the Company makes efforts to enhance the effectiveness of discussions at Board of Directors' meetings in such ways as having Executive Officers in charge of accounting and human affairs who are not Directors attend these meetings.

At these Board of Director meetings, to promote sustainable growth and mid- to long-term increases in corporate value, the Company deliberates from various perspectives, including evaluation of risks and determine the mid- to long-term direction of management toward business strategies. Furthermore, the Company supervise and audit whether or not its business strategies are being executed appropriately in various ways through reports by the Inside Directors on the status of progress of these strategies and issues preventing their achievement and response to such issues, as well as through evaluation and audits by Outside

Directors and Outside Audit & Supervisory Board Members from their diverse perspectives. Moreover, the Company draws sharp distinctions between risks through the establishment of internal control and risk control systems. In these ways, the Company has created an environment that allows for a more proactive style of management.

Major topics discussed by the Board of Directors in 2018

First Quarter	<ul style="list-style-type: none"> • Evaluation of effectiveness of the Board of Directors • Revision of Information Disclosure Guidelines • Department of Internal Audit's audit reports • Audit and Supervisory Board Members' audit report summaries
Second Quarter	<ul style="list-style-type: none"> • Reviewing Mid-term Plan progress • Compliance Committee reports • Cosmetics Business strategies • M&A strategies • ESG strategies • Current status of Research & Development and topics
Third Quarter	<ul style="list-style-type: none"> • Department of Internal Audit's audit reports • New Business Project progress reports • Employee satisfaction survey results
Fourth Quarter	<ul style="list-style-type: none"> • Baby diaper business strategies • Internal Control Committee reports • Cross- shareholdings status

In addition to the above, each month Kao has business execution reports from Directors currently serving as Executive Officers, as well as on matters discussed during the Management Committee from Executive Officers in charge.

Evaluation of the effectiveness of the Board of Directors

On an annual basis, an evaluation is conducted at a meeting of the Board of Directors in order to make improvements aimed at enhancing the effectiveness of the Board of Directors. Based on the idea that the roles and responsibilities of the Board of Directors must be shared by the entire Board of Directors, all members who participates in meetings of the Board of Directors, including Audit & Supervisory Board Members, to express opinions, discuss and conduct evaluation. Also in FY2018 evaluation, the Company conducted a survey in advance, and the Board of Directors discussed and exchanged their opinions regarding the shared results.

Evaluation of efforts to address issues pointed out in FY2017

Human resource strategies

Although a certain level of discussions were held, further discussion is necessary for utilizing global human resources, which is the premise of promoting business globalization, as well as for finding and fostering diverse human resources to respond to diversification of values with recent technological innovations, and to changes in purchasing behaviors and distribution structures.

Business strategies including non-financial activities (ESG activities)

Top management itself takes initiative, showing an attitude for leading the way in change. Sufficient discussions have been held, and properly implemented, including newly establishment of ESG Division.

Maintenance and oversight of Kao's internal control system to comply with laws and regulations

There was some improvement in the speed of reporting important matters to the Board of Directors. By delivering information early on, the Company can minimize serious matters and enable discussion of the response by the Kao Group as a whole. Kao needs to continue to enhance both a system maintenance and operation.

Future issues for the Board of Directors

- Scouting and developing diverse human resources is an ongoing issue. Based on Kao's Vision 10 years from now, further discussion is needed regarding target human resources, who can realize the Vision, and how to find and foster such human resources.
- Interactive communication between the Board of Directors and execution side should stimulate the Board of Directors, and apply discussion at the Board of Director to business execution.
- Regarding internal control to comply with laws and regulations, supervision must be carried out to constantly review not only its system maintenance, but its operation that enables the system to function effectively.

Besides the above, the Company evaluates viewpoints that are emphasized in the corporate governance code, such as constructive discussion on the company's overall direction, and the structure and management status of the Board of Directors. Furthermore, in FY2018, the effectiveness of the Committee for the Examination of Nominees for Directors and the Compensation Advisory Committee was evaluated.

Audit & Supervisory Board Members and Audit & Supervisory Board

For Outside Audit & Supervisory Board Members, Kao has appointed certified public accountants and a lawyer to its Audit & Supervisory Board, all of whom have a high level of professionalism and insight in accounting, finance and law necessary for auditing, abundant experience which can take advantage of them, and high ethical standards as a professional. Supported by internal information gathering by the well-informed full-time Auditor & Supervisory Board Members, Audit & Supervisory Board Members are able to engage in objective and meaningful discussion and perform highly effective audits.

Audit & Supervisory Board Members hold regular meetings with the Representative Directors to exchange opinions and attend important meetings, such as meetings of the Board of Directors and the Management Committee. In addition to meetings with the auditors of domestic group companies, the Audit & Supervisory Board Members hold meetings with internal auditing divisions and the Accounting Auditor to exchange information as well as conduct interviews with each internal division and Kao's subsidiaries on a regular basis and additionally when necessary. Furthermore, at meetings of the Board of Directors, the Audit & Supervisory Board Members provide observations related to the legality and validity of the Company's business and accounting practices. The Audit & Supervisory Board also offers a wide range of advice to Kao's management, including advice on strategic management direction.

Evaluation of the effectiveness of the Audit & Supervisory Board

Once a year, all the Audit & Supervisory Board Members express their views, discuss, and conduct evaluations while referring to a list of focal points prepared in advance at the Audit & Supervisory Board. The results are incorporated into next fiscal year's audit plan, and its summary is reported and shared at the Board of Directors.

Evaluation of current status

- The Audit & Supervisory Board has been effectively managed. Through Full-time Audit & Supervisory Board Members and staff correspondence, Outside Audit & Supervisory Board Members were able to work effectively.
- Began meetings to exchange opinions between Outside Directors. The Audit & Supervisory Board will continue to share its awareness of issues and further strengthen its management supervisory functions.
- Held exchange information meetings with full-time auditors of major domestic subsidiaries. Mutually shared concerns, which led to the development of a relationship in which information can be conveyed to the headquarters.
- Established effective communication channels with the accounting auditors and the Department of Internal Audit, and strengthened the tripartite auditing framework.

Future Issues for the Audit & Supervisory Board

- By enhancing the opportunities for interactive communication between the Audit & Supervisory Board Members of the head office and subsidiaries through the Conference of Auditors for Domestic Group Companies and other measures.

Committee for the Examination of Nominees for Directors and Compensation Advisory Committee

To ensure fairness and transparency in decisions regarding the appointment and compensation of Kao's Directors and Executive Officers, Kao has voluntarily established the Committee for the Examination of Nominees for Directors and the Compensation Advisory Committee.

The Committee for the Examination of Nominees for Directors comprises all Outside Directors and Outside Audit & Supervisory Board Members. The committee submits its opinions regarding nominees for company President and Directors to the Board of Directors. In addition to examining the appropriateness of Director nominees, it discusses size, composition and diversity of the Board of Directors as well as the qualities required for the President and Chief Executive Officer and members of the Board. The committee also reports the results of these examinations and deliberations to the Board of Directors.

The Compensation Advisory Committee is composed of all Outside Directors, all Outside Audit & Supervisory Board Members and all Representative Directors. The committee offers its opinions to the Board of Directors on compensation systems and levels of Directors and Executive Officers. Furthermore, in FY2018, the effectiveness of both committees was evaluated at the Board of Directors.

Attending members for meetings of the Board of Directors, the Audit & Supervisory Board and other committees

Classification	Name	Meeting of the Board of Directors	Audit & Supervisory Board Meeting	Committee for the Examination of Nominees for Directors	Compensation Advisory Committee
Members of the Board	Michitaka Sawada	○			○
	Toshiaki Takeuchi	○			○
	Yoshihiro Hasebe	○			○
	Tomoharu Matsuda	○			
	Sonosuke Kadonaga <small>Outside/Independent</small>	◎		◎	◎
	Osamu Shinobe <small>Outside/Independent</small>	○		○	○
	Chiaki Mukai <small>Outside/Independent</small>	○		○	○
	Nobuhide Hayashi <small>Outside/Independent</small>	○		○	○
Audit & Supervisory Board Members	Katsuya Fujii	○	◎		
	Hideko Aoki	○	○		
	Toraki Inoue <small>Outside/Independent</small>	○	○	○	○
	Hideki Amano <small>Outside/Independent</small>	○	○	○	○
	Nobuhiro Oka <small>Outside/Independent</small>	○	○	○	○

◎ Indicates Chairman of the Board or specified committee ○ Indicates attending member

Independence of Outside Directors and Outside Audit & Supervisory Board Members

Kao uses a structure with the appropriate number of independent Outside Directors and independent Outside Audit & Supervisory Board Members who satisfy the "Standards for Independence of Outside Directors/Outside Audit & Supervisory Board Members of Kao Corporation" (hereinafter, the "Standards for Independence") to provide a check on the status of deliberations of the Board of Directors from an objective perspective independent of Kao's management so that its judgment is not biased toward the logic of persons inside the company. Four of the Company's eight Directors and three of its five Audit & Supervisory Board Members and fulfill the Standards for Independence. Under its current structure, The Board of Directors has appointed an independent Outside Director as Chairman of the Board of Directors to further enhance the Board's neutrality and independence. To promote

discussions from diverse perspectives, independent Outside Directors and independent Outside Audit & Supervisory Board Members hold meetings on their own initiative at intermissions of meetings of the Board of Directors or by setting up separate opportunities to exchange information and share awareness of issues related to the Company's management and the activities of the Board of Directors, the development of future management, and other matters.



→Adoption of Standards for Independence of Outside Directors/Audit & Supervisory Board Members
www.kao.com/content/dam/sites/kao/www-kao-global/en/about/pdf/governance_002.pdf

Compensation system for Directors, Audit & Supervisory Board Members and Executive Officers

The compensation system for the Directors, Audit & Supervisory Board Members and Executive Officers is aimed at (1) securing and retaining diverse and excellent personnel to establish and improve competitive advantages; (2) promoting prioritized measures for lasting increases in corporate value; and (3) sharing interests in common with shareholders. Starting in FY2017, Kao has introduced a performance-based share incentive plan for its Directors (excluding Outside Directors) and Executive Officers. Serving as a highly transparent and objective remuneration system that is closely linked to company performance, the performance-based share incentive plan aims to increase awareness of contributing to improvement in the company's financial performance and corporate value over the mid- to long-term.

(i) Base salary

A base salary is paid as fixed monthly remuneration in an amount determined in accordance with duties as a Director or Executive Officer and rank.

(ii) Bonus as short-term incentive compensation

When the full bonus payment rate is paid, the bonus is set at 50% of the base salary for the President and Chief Executive Officer, 40% of the base salary for Executive Officers with titles other than the Chief Executive Officer and 30% of the base salary for other Executive Officers. The bonus payment rate is set within a range of 0% to 200%, depending on the degree of achievement of targets for net sales and income (gross profit less selling, general and administrative expenses), the degree of their improvement from the previous year, and the degree of achievement of the target for Economic Value Added (EVA®), the Company's main management indicator, which takes into account capital cost.

(iii) Performance-based share incentive plan as long-term incentive compensation

Within a four-year target period from FY2017 to FY2020, the period covered by the current mid-term plan, Kao shares, etc., are delivered to Directors, other than Outside Directors and Executive Officers in accordance with the degree of mid-term plan target achievements and non-financial target achievements from an ESG perspective. This incentive plan has two parts: a performance-based part in which Kao shares, etc., are delivered in accordance with the degree of mid-term plan target achievement, and a fixed part in which a certain number of Kao shares, etc., are delivered annually. The performance-based part of the system provides an impetus for achieving the targets of our mid-term plan and increases the link between performance and compensation over the med- to long term. The fixed part of the system strengthens shared interest with Kao's shareholders by promoting the holding of shares by Directors (excluding Outside Directors) and Executive Officers. The performance-based part accounts for 70% of shares delivered, with the fixed part accounting for 30%. When the performance-based coefficient for the performance-based part of the system is at 100%, the yearly share remuneration amount is set at nearly 40% to 50% of the base salary.

The compensation system and compensation standards for Directors and Executive Officers are examined by the Compensation Advisory Committee and determined by the Board of Directors. Compensation for independent Outside Directors consists solely of a fixed monthly salary. Compensation of Audit & Supervisory Board Members also consists solely of a fixed monthly salary, and compensation standards are determined at meetings of the Audit & Supervisory Board. Compensation standards

for Directors, Executive Officers, and Audit & Supervisory Board Members are determined each year after ascertaining standards at other major manufacturers of similar size, industry category, and business type to Kao using officer compensation survey data from an external survey organization. The Company does not have a system for providing retirement benefits to Directors or Audit & Supervisory Board Members.

Compensation Paid to Directors and Audit & Supervisory Board Members in FY2018

Directors	Eight, 480 million yen (Outside Directors: four, 60 million yen)
Audit & Supervisory Board Members	Six, 78 million yen (Outside Audit & Supervisory Board Members: four, 30 million yen)

Note: The above numbers of Directors/Audit & Supervisory Board Members include one Outside Director and one Outside Audit & Supervisory Board Member who resigned at the conclusion of the 112th Annual General Meeting of Shareholders held on March 23, 2018.

The aggregate amount of remuneration of Directors

Michitaka Sawada (Director)	Aggregate amount of remuneration	165 million yen
	Base salary	82 million yen
	Bonus	48 million yen
	Performance-based remuneration	35 million yen

Note: Only Director remuneration amounts totaling over 100 million yen are listed.



Messages from Outside Directors and an Outside Audit & Supervisory Board Member
 ➔ Kao Integrated Report 2019 p. 80-81
www.kao.com/content/dam/sites/kao/www-kao-com/global/en/investor-relations/pdf/reports-fy2019e-all.pdf#page=80

Kao's approach

Kao vigorously implements Responsible Care activities, which are self-monitoring activities by companies engaged in the chemical industry, to ensure safety and environmental conservation in daily operations.

Kao's creating value to address social issues

Social issues we are aware of

The stable provision of products and ensuring the quality and safety of those products, along with the provision of a safe and hygienic working environment and the reduction of environmental impact from business activities are important social responsibilities. These responsibilities must be fulfilled in our capacity as a chemicals manufacturer providing diverse materials, products and systems to wide-reaching industries with bases both within and outside Japan.

Kao's creating value

We have implemented Responsible Care (RC) activities to autonomously ensure aspects of environment, safety and health in the chemicals industry. We aspire to creating a sustainable society while building trusting relationships with society from an ethical perspective by promoting these activities.

Risks related to realization of our vision by 2030

Neglecting any one of the basic pillars of RC activities will be harmful to our social reputation as each of these is vital for the chemical industry.

Opportunities related to realization of our vision by 2030

Building a strong relationship of trust with the community by promoting RC activities, which are autonomously pursued by corporations, will further facilitate the trust of stakeholders in our products and the company.

Contributions to the SDGs



Policies

We carefully safeguard individuals and the environment at every step of business, from product development to manufacturing, distribution, use, disposal, and recycling, with part of our mission being to help bring about sustainability in society.

The group as a whole remains committed to the promotion of RC activities, participating in such activities since the 1995 establishment of the Japan

Responsible Care Council. In 2008, then-President and CEO Motoki Ozaki signed a declaration of support for the RC Global Charter, and again in 2014 President and CEO Michitaka Sawada signed the revised RC Global Charter.

To achieve this objective, we have established the Kao Responsible Care Policy based on the basic pillars of RC activities*, that is self-monitoring efforts governing the environment, safety and health set out by the chemical industry. The group as a whole, including subcontractors, sets targets each year, and implements those activities based on an annual plan.

* Basic pillars of RC activities

Five objectives of environmental conservation, process safety and disaster prevention, occupational safety and health, chemical and product safety, and distribution safety, and communication with society.



→ Kao Responsible Care Policy
www.kao.com/global/en/sustainability/environment/statement-policy/policy/responsible-care/



→ p.177 Corporate Culture > Occupational safety

Framework

The Responsible Care Promotion Committee is positioned as one of the Internal Control Committees chaired by the President, reporting to the Internal Control Committee quarterly. The Internal Control Committee gives an overview activity report for its subsidiary committees to the Board of Directors.

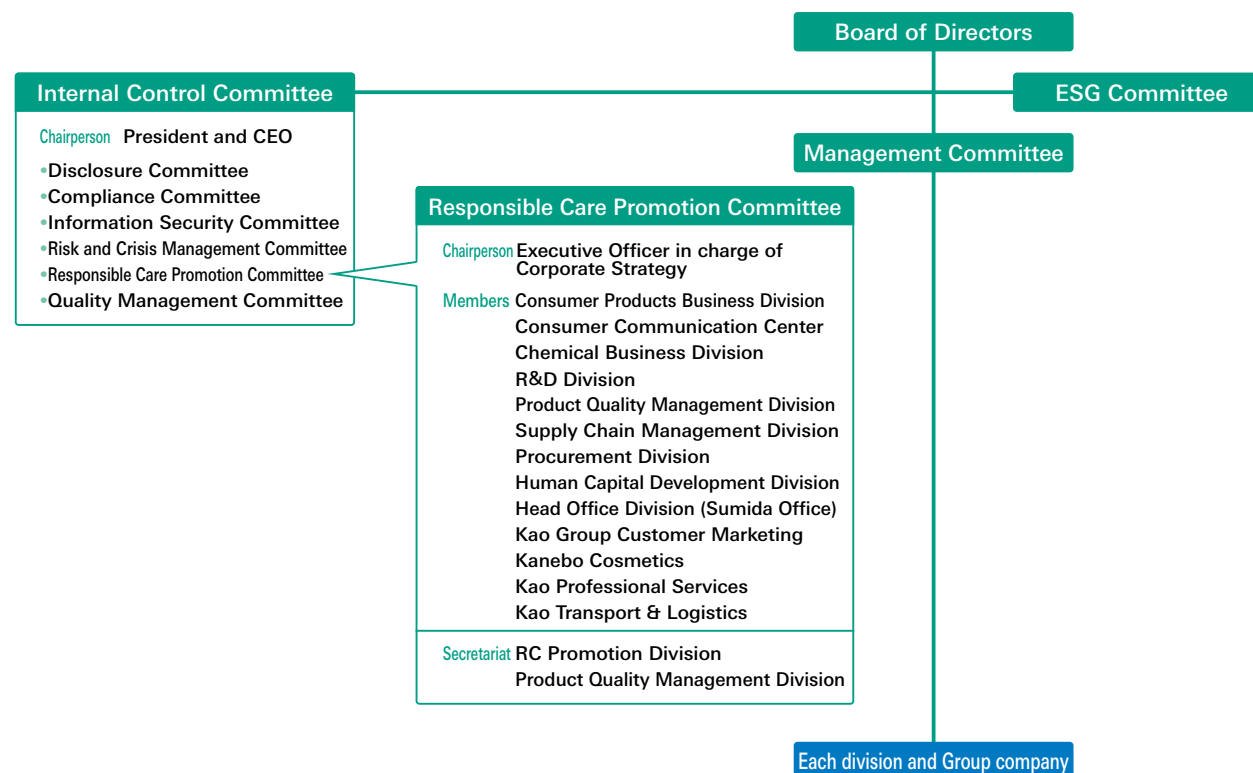
Senior Vice President (Managing Executive Officer) serves as the chairperson of the Responsible Care Promotion Committee which is composed of 14 members: representatives from four divisions, in addition to representatives of the eight promotional divisions* within Japan, and the Quality Management Division staff, meeting once per year. The RC Promotion Division and Product Quality Management Division serve as the secretariat of the committee.

Each company involved in the Chemical Business in the group, including Kao Corporation, participates in planning at the chemical industry association in their respective countries to promote RC activities.

* Eight promotional divisions

Head Office Division (Kayabacho Office), Head Office Division (Sumida Office), Chemical Business Division, Kao Professional Services Division, R&D Division, SCM Division, Sales Division, Kao Logistics.

Responsible Care Promotion Framework



* As of December 2018.

Education and Promotion

The RC Promotion Committee Secretariat and RC promotion staff of the individual divisions in charge of RC promotion regularly provide RC education on environmental conservation, occupational safety and health activities for Kao employees and the staff of its business partners.

In 2018, the RC Promotion Committee Secretariat carried out RC group training 49 times, reaching a total of 1,212 employees (23 times within Japan with a total of 1,043 participants; and 26 times in Asia, the Americas, and Europe with a total of 169 participants).

In 2015, the basic RC education program was provided for the group employees in Japan and this initiative was also thereafter implemented via e-learning courses for recent graduates and employees hired mid-career.

Collaboration with stakeholders

Kao Group companies implement active exchanges with stakeholders and others as well as various other activities in line with one of the basic pillars of RC activities, namely communication with society.



→ p.113 Community > Corporate citizenship activities

Mid- to long-term targets and performance

Mid- to long-term targets

Kao is promoting day-to-day RC activities to become a top-level global corporation for safety and environmental criteria by 2020.

In order to achieve this, it is striving to take its RC activities to an even greater level and expand their scope while enhancing management system.

Anticipated benefits from achieving Mid- to long-term targets

Cost reductions or profit increase

Business activities are implemented normally with stable provision of products while unnecessary costs are cut down.

Impacts on society

There is a possibility of positive influences such as reduction in environmental impacts, improvements in sanitation, and returns to society in the areas of business activity, which facilitates a resulting improvement in the lifestyles of stakeholders, including residents of communities.

Performance in 2018

Performance

In 2018, Kao convened the group RC Promotion Committee on September 26, the Global RC meetings on November 5 and 6, and the Japan RC Meeting on December 19.

In addition, the RC Promotion Committee Secretariat Audit was conducted between July and August at each group company within and outside Japan and individual divisions in charge of RC promotion. Furthermore, as part of the Secretariat Audit, the RC Promotion Committee Secretariat oversaw self-checks by each promotional division where they were in attendance to confirm that these RC self-checks were correctly implemented in line with regulatory and other requirements. The RC Promotion Committee oversaw the Safety and Disaster Prevention Audit of the SCM Division, which was implemented in July 2018.



→ p.198 Our initiatives: Standardization of RC activities
p.200 Our initiatives: Implementation status of the RC Promotion Committee Secretariat Audit

Reviews of performance

While waste targets as part of environment and all items of safety were not achieved, we will maintain and promote the initial targets by 2020.

Our initiatives

Standardization of RC activities

The eight promotional divisions within Japan and all affiliated companies outside Japan promote the RC activities as shown below based on our Responsible Care Targets set by the Kao Group RC Promotion Committee, through drafting activity plans aligned with various operational requirements, industries, and business categories.

At the Kao Group RC Promotion Committee held in September of each year, members discuss initiatives to clarify courses of action and strengthen the management system, and deliberate over the following year's numerical targets and activity targets based on the group's mid-term targets and the results of the RC Promotion Committee Secretariat Audit conducted in August.

At the Global RC Meeting held from October to November, the RC Promotion Committee Secretariat explains the group's mid-term targets and targets for the upcoming year, as decided at the Kao Group RC Promotion Committee, and requests each company to devise its respective targets and to plan for the upcoming year. Representatives from each company present the status of their RC activities and share information within the group.

At the Japan RC Meeting held in December, based on these numerical targets and activity targets for the group decided at the Kao Group RC Promotion Committee, RC Promotion Committee members of promotional divisions announced their respective division plan for the upcoming year, each of which the committee then discussed. The RC Promotion members convey the deliberation results to their respective divisions, relating the content in detail to their activity units in an effort to improve and enhance RC activities closely connected to each worksite.

The Kao Group RC Promotion Committee meeting was held on September 26, 2018. The RC Promotion Committee Secretariat announced the group's overall first-half results in relation to 2018 RC targets, and the results of the RC Promotion Committee Secretariat Audit. The promoting divisions also announced the current status of their promotional activities and finally the group's targets for 2019 were agreed upon for deliberation.

The Global RC Meeting was held at the Kayabacho Head Office on November 5 and 6, with 18 attendees from 15 affiliated companies outside Japan (12 the previous year). The meeting furthered understanding of Kao RC Policy and 2019 targets were confirmed.

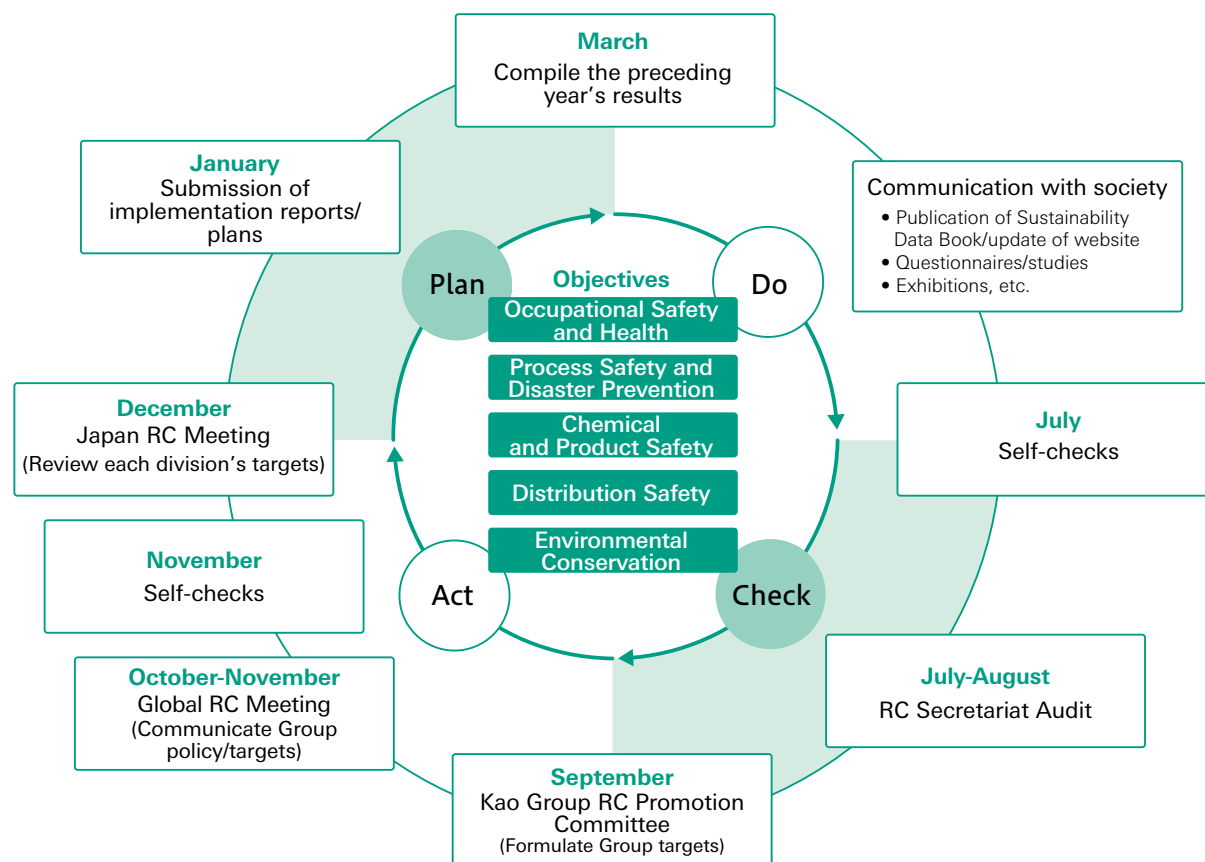
Participants were able to observe how RC activities and advice were implemented at other companies, analyze strengths and weaknesses, and share best practices, and enhance communication among members of the global RC.

At the Japan RC Meeting, held on December 19, RC Promotion Committee member of respective promotional divisions announced their 2019 draft plans, with the plans then deliberated and approved. The RC Promotion Committee Secretariat then reported on the group's 2018 environmental and safety record.



Japan RC Meeting

Annual cycle of RC activities



Utilization of environmental and safety database

Kao has developed the Environmental & Safety Data Management System (KANCHAN System)* to further reduce both environmental impact and occupational accidents.

The KANCHAN System automatically calculates our total GHG emissions and the annual frequency and severity rate of occupational accidents, along with other data-based practical information used to reduce our environmental impact and eliminate occupational accidents.

We are currently exploring to a practical system for the efficient use of environmental and safety data by the group with the Information Technology Division, as part of deliberations on transitions to new systems.

* Environmental & Safety Data Management System (KANCHAN System)

Data shared among the group under this system includes that related to energy consumption, GHG emissions, soot and dust emissions, water consumption, wastewater discharged, wastewater conservation measurements, soil and groundwater measurements, amounts of handling, release and transfer of PRTR materials, waste generated and discharged, and final disposal of waste, occupational accident statistics, and traffic accident statistics.

Implementation status of the RC Promotion Committee Secretariat Audit

At Kao, individual divisions in charge of RC promotion conduct self-checks in July, and the audit team selected by the RC Promotion Committee Secretariat implements an audit of individual divisions in Japan in charge of RC promotion and affiliated companies outside of Japan in August, to determine the progress of RC activities and challenges to be addressed.

These results are reported at the Kao Group RC Promotion Committee held in September and Global RC Meeting held in November and these help formulate the following year's numerical targets and activity targets.

In addition, the audit involves evaluations by scoring the implementation status (implemented/not implemented; implementation rate) by survey item on the checklist used for the audit, as it is implemented based on company-wide regulations (B-02-00 The Rules for RC Secretariat Audit).

From July through August 2018, the RC Promotion

Committee Secretariat Audit was conducted by using the checklist sheet at eight promoting divisions in Japan and 19 group companies* with plants outside Japan, with consideration to the degree of safety and environmental impacts. In 2018 the scope of the checklist for the audit was expanded from its conventional form, facilitating a more advanced confirmation of the promotion status for activities.

In addition, a separate checklist was drafted for regulatory compliance status and the system for environmental and safety aspects in the current year, and was used to implement an audit.

In Japan, in meetings with the promotional divisions, various statuses were confirmed, such as the current status of compliance with regulatory requirements and criteria, progress in planning and achieving numerical targets. Outside Japan, the checklist to confirm regulatory compliance system was sent to companies, and a paper audit was conducted of the response results. It has also been confirmed that all

findings from the 2017 audit had been addressed.

As a result of the 2018 RC Promotion Committee Secretariat Audit, all eight promotional divisions in Japan achieved an average evaluation score of 4.5 or higher, indicating that the RC promotion mechanism has become entrenched. Meanwhile, there were many findings on occupational safety for which further monitoring and improvement have been requested. Outside Japan, all companies saw an improvement in the evaluation scores compared to those in 2017 (see table below).

* Kao Corporation Shanghai, Kao (Hefei) Co., Ltd., Kao Chemical Corporation Shanghai, Kao (Shanghai) Chemical Industries Co., Ltd., Kao Huludao Casting Materials Co., Ltd., Kao (Taiwan) Corporation, Kao Vietnam Co., Ltd, Pilipinas Kao Incorporated, Kao Industrial (Thailand) Co., Ltd., Fatty Chemical (Malaysia) Sdn. Bhd., PT Kao Indonesia, PT Kao Indonesia Chemicals, Kao USA Inc., Kao Specialties Americas LLC, Quimi-Kao S.A. de C.V. (Mexico), Kao Manufacturing Germany GmbH, Kao Chemicals GmbH (Germany), Molton Brown Limited (UK), Kao Corporation S.A. (Spain).

Results of RC Secretariat Audit (2018)

	SCM Division	R&D Division	Business divisions	Corporate divisions	Affiliated companies in Japan ^{*1}	Affiliated companies outside Japan ^{*2}
No. of questions	202	159	249	331	534	5,982
No. of items requiring further monitoring	2	8	1	5	6	—
Average evaluation score [5-point scale] ^{*3}	4.92 (4.88)	4.92 (4.94)	4.88 (4.82)	4.90 (4.88)	4.90 (4.84)	4.48 (4.30)

*1 Group companies in Japan

Kao Professional Services Co., Ltd., Kao Group Customer Marketing Co., Ltd., Kao Transport and Logistics Co., Ltd..

*2 Group companies outside Japan

19 companies (12 in Asia, 7 in Europe and the Americas).

*3 () indicates 2017 results.

Implementation of Safety Awareness Survey

We independently instituted and implemented the Safety Awareness Survey to survey employee awareness of safety and facilitate ongoing safety activities. This was implemented for the Japanese SCM division in its inaugural year of 2018 and will be rolled out to the R&D Division, Sales Division, and employees outside Japan going forward.

Status of international management system certification

Kao has implemented an RC management system throughout the group, with some plants having received ISO 14001 certification, the global environmental standard, as well as OHSAS 18001 certification, which is the standard for occupational health and safety, in addition to other certifications in respective countries.

Environmental certifications (ISO 14001, etc.)

95% of our plants have received external certification (based on total production volumes standard). Certifications obtained at 15 individual plants in Japan and Asia have been integrated to standardize and upgrade operations. Furthermore, we completed the changeover to the 2015 version in 2018. We will expand the scope of certified plants on an ongoing basis and increase the number of integrated plants.

Occupational health and safety certifications (OHSAS 18001, etc.)

Obtaining the occupational health and safety management standard has been promoted at plants outside Japan which experience more work-related accidents compared to those within Japan and need enhancement of labor management. 35% of the plants have certification (based on total production volumes standard).

In 2018 we completed initiatives at five plants in Asia for the integration of certifications obtained at individual plants in order to facilitate standardized and upgraded operations. We will expand the scope of certified plants on an ongoing basis, while updating to ISO 45001 and increasing the number of integrated plants.

Product quality certifications (ISO 9001, etc.)

95% of our plants have received external certification (based on total production volumes standard). We will continue to expand the scope of certified plants.

List of external obtained certifications



→ Certification Status of ISO and Other Standards
www.kao.com/global/en/sustainability/environment/activity-data/certification/



Responsible Care (RC) grand prize awarded to SCM Division

Our SCM Division received the grand prize of the 12th Responsible Care (RC) Award from the Japan Chemical Industry Association for its initiatives for environmental impact reduction at manufacturing worksites.

It was awarded this in light of its sustainable energy conservation activities, including early adoption within its industry of city gas for plant production energy needs, and gas cogeneration facilities (cogeneration-type energy system), which resulted in halving CO₂ emission intensity (intensity in 2016 from 1990). In addition, it was highly praised for its environmental impact reduction activities including zero emissions from waste (final disposal percentage) and reduction of CFC emissions.



Awards ceremony

Kao's approach

Kao implements risk and crisis management that can respond both appropriately and promptly to changes in the business environment, to prevent risks to happen and to minimize the damage and loss in the case where risks become realized.

Kao's creating value to address social issues

Social issues we are aware of

Concerns about the acceleration of climate change and increase in natural disasters as a result of global warming, as well as concerns about environmental pollution, water resources, and biodiversity have led to heightened consumer awareness toward sustainability and the strengthening of environmental regulations.

Moreover, the development of information and communications technology and widespread use of smartphones in recent years have given rise to the ubiquitous use of social media and the rapid growth of e-commerce. These technologies have significantly changed how people communicate and their purchasing behavior.

At the same time, stakeholders are raising their expectations and demands of companies for corporate compliance, secure information management, human rights protection, respect for diversity, and timely and appropriate information sharing and disclosure.

Kao's creating value

Kao does everything it can to properly manage the many types of risks and crises that may occur across

all of its business activities. We have formulated countermeasures to handle significant risks that have a substantial impact on Kao, aimed at providing better products and services without interruption and maintaining good relationships with consumers, clients, business partners and other stakeholders. We further strive to bring joy and satisfaction to people's lives around the world and contribute to global sustainability.

Risks related to realization of our vision by 2030

It is necessary to manage and respond at a higher level to business operation risks such as product supply issues caused by natural disasters and accidents, quality issues, and concerns about product safety and security.

Also, if incorrect information about the Kao Group or negative comments toward the brand or Kao's corporate image is spread on social media etc., the impact on business tends to intensify. Therefore, it is necessary to take an immediate and appropriate response and the management of reputation risk*.

It is also necessary to respond steadily for strategic risks—risks to be taken for corporate growth—that emerge in such areas as business and

management strategy, overseas expansion, capital investment, the launching of new businesses, and acquisitions.

* Reputation risk: Risks that inflict loss on a company from decline in corporate trust and brand value due to the spread of critical evaluation and rumors against the company.

Opportunities related to realization of our vision by 2030

In order to contribute greater trust in Kao and improved brand value, and helping us to achieve our vision by 2030, it is necessary for us to continue to identify and respond to significant risks may arise from business and social environment change. And these activities need to be disseminated and understood to society.

Contributions to the SDGs



Policies

We regard the potential negative impact on the achievement of its management targets and business activities as a “risk” and the materialization of such risk as a “crisis”. We appropriately manage the various risks and crises that could occur throughout its overall business activities in accordance with the response priority detailed in Kao Risk and Crisis Management Policy (1. Protection of human lives, 2. Environmental conservation, 3. Continuation of operation, 4. Protection of assets).

To promote K20 and achieve “What Kao Aims to Be by 2030”, we are stepping up our risk and crisis management in the ways listed on the right.

1

Clarifying significant risks handled by management and building a corresponding response structure

We designated risks that would particularly have a significant impact on our management and which we need to strengthen our response to, as “corporate risks”. Executive officers are responsible for handling these risks.

2

Expanding the scope of target risks

Risk management, which has mainly focused on operational management risks, has been expanded to strategic and reputation risks from 2015, and we are promoting our responses to them.

3

Strengthening response to the materialization of risks

Taking it for granted that risks are revealed, even if they should become apparent, we are strengthening our response structure in times of crisis so that we are able to take prompt and appropriate measures.

Framework

The Risk and Crisis Management Committee, held 4 times a year, chaired by an Executive Officer in charge of risk and crisis management, establishes a system and operating plans for risk management. Each division, subsidiary and affiliated company ascertains and evaluates risk based on these operating plans and conducts risk management by formulating and implementing appropriate countermeasures.

In addition, we have established the Risk and Crisis Management Promotion Council, held once a month as a subordinate organization of the committee, which discusses proposals with the committee and promotes committee decisions.

Furthermore, themes and persons in charge of significant risks (corporate risks) to be managed by management are decided through the approval of the Management Committee, based on interviews with management, internal risk surveys (conducted for each division and subsidiary), and others. Corporate risk managers organize response teams, formulate and implement countermeasures, and strive to comprehensively strengthen risk response.

Themes of corporate risk are reviewed annually and the progress of corporate risk activities is reviewed by the Risk and Crisis Management Committee. The risk topics and progress are reported or discussed at the meetings of the Management Committee or the Board of Directors on regular basis (once a year) as well as in a timely fashion.

When a crisis occurs, Kao responds promptly to minimize physical damages and financial losses by establishing an organization for countermeasures. This organization centers on the executive officer in charge of managing corporate risks as well as on personnel responsible for managing risk within company divisions and at subsidiaries and affiliates. In addition, depending on the magnitude of the impact on the Kao Group as a whole, Kao also establishes a countermeasure headquarters with the

President and CEO or executive officer as its general manager.

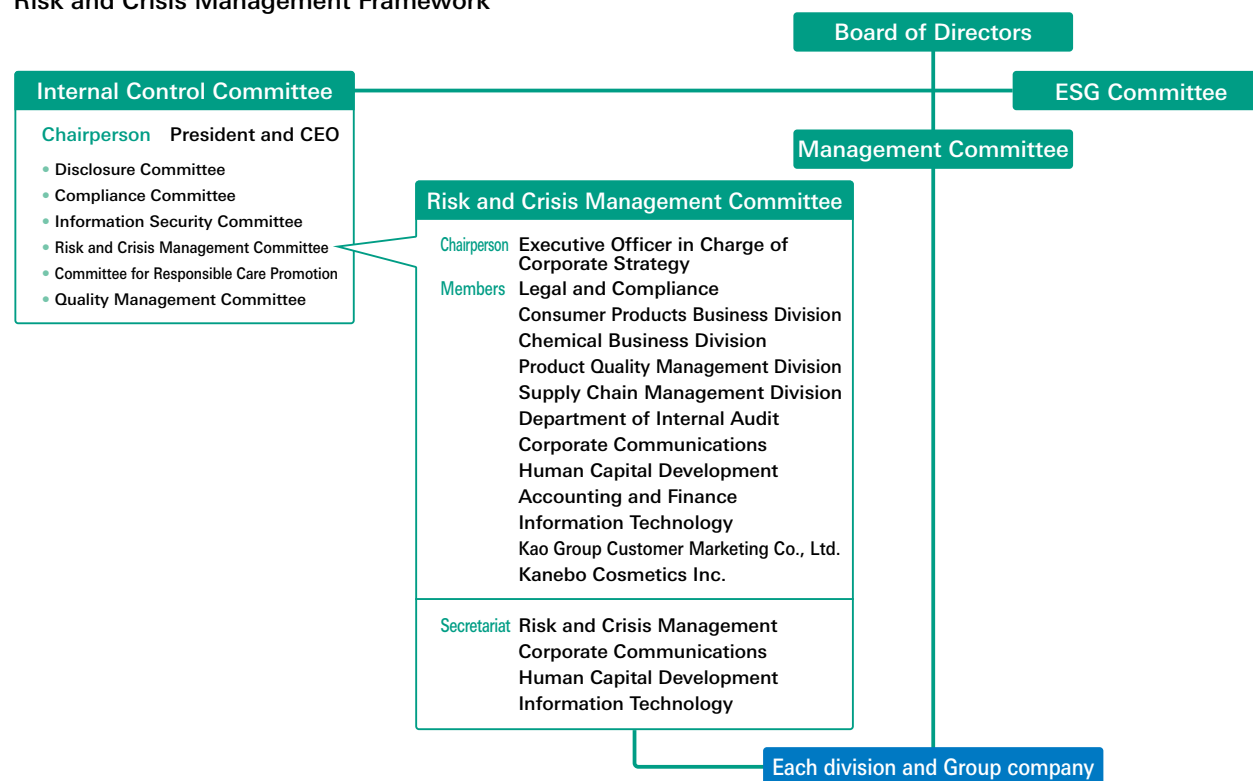
The Risk and Crisis Management Department, which operates independently of Kao's individual businesses, promotes effective management of risk and crisis in all Kao Group member companies. Besides submitting proposals for improvement, the Department also works to identify new risks and risks for which it is not clear which unit has responsibility, and formulates response strategies. The head of the Department also functions as head of the secretariat of the

Risk and Crisis Management Committee, and reports on risk and crisis management activities when needed at meetings of the Management Committee and of the Board of Directors.

The effectiveness of the risk and crisis management process is verified by the Internal Control Committee.

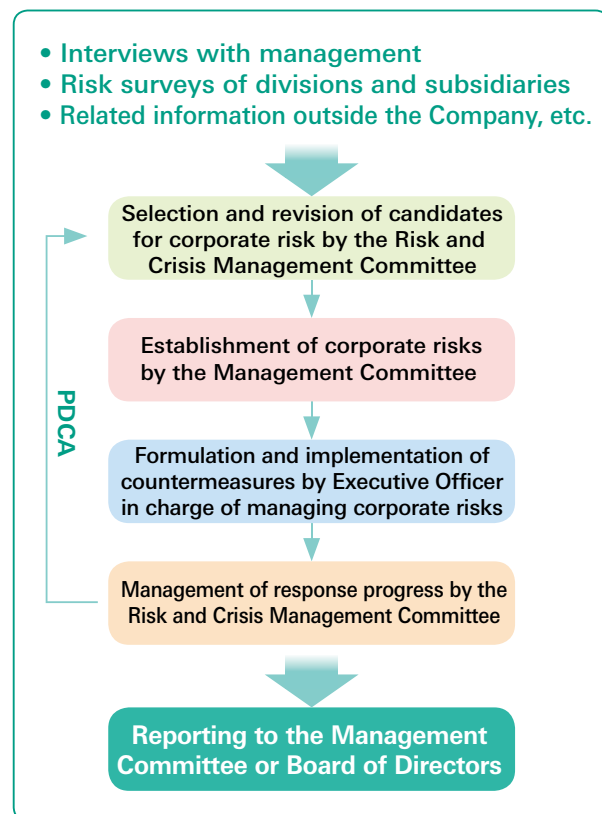
Performance evaluation of the Executive Officer in charge of risk and crisis management and of the Risk and Crisis Management Department incorporates evaluation of the extent to which targets have been achieved in relation to the activities outlined above.

Risk and Crisis Management Framework

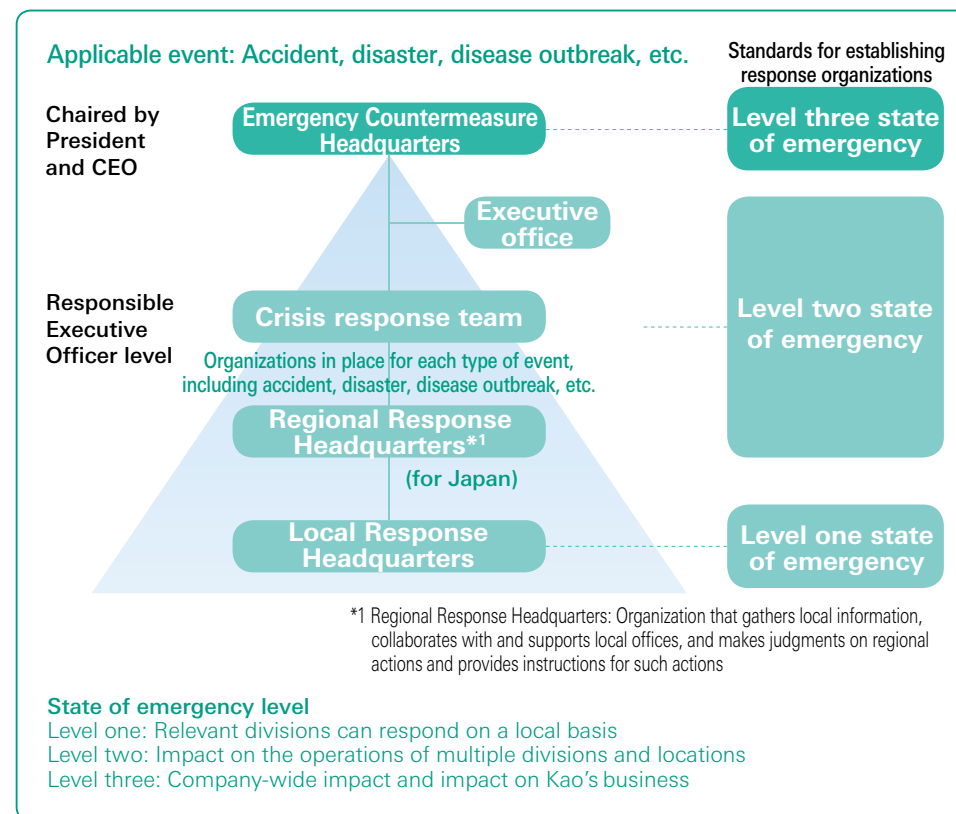


* As of December 2018.

Management of corporate risk



Management framework during times of crisis (an example)*



*System to be followed in the event of a crisis.

Within the Kao Group, when a crisis occurs, the head of the crisis response team will evaluate the level of severity of the crisis on the basis of the potential impact on the Kao Group (designating the crisis as Level one, Level two or Level three depending on the severity of the accident, disaster, epidemic, etc. in question), and an appropriate organizational framework will be established for dealing with the crisis in accordance with the level of severity.

Education and promotion

Establish awareness for risk management structure and its policy

Kao Group (division, subsidiary and affiliated company) risk and crisis management structure ensures each division and organization are aware of significant risks' management structure and its policies which determined by the Risk and Crisis Management Committee. Furthermore, risk surveys and reviews are conducted at each division, subsidiary and affiliated company to identify significant risks and to promote the development and revision of countermeasures on a regular basis, by confirming the progress of these activities, allowing each site to establish risk management structure.

The education for risk management is also provided to directors (including outside directors) at least once a year by internal or external lecturers.

Risk surveys

Risk surveys—both a comprehensive survey and surveys with questions on designated topics—are conducted at each division and subsidiary to identify significant risks and to assist in the revision of countermeasures.

For cross-organizational risks and common risks, the causes of events are being analyzed. The results of the surveys are fed back to each division and subsidiary to promote ongoing improvement in the risk management capabilities of the organization and its employees.

Providing information on risks

We provide emergency contact and the response structure to be used when a risk becomes realized and information on such issues as overseas safety, infectious diseases, and information security. Information is provided on a regular basis or as necessary to raise employee awareness and promote a crisis-preparedness mindset. A "Risk and Crisis Management Report" is posted once a month on our internal portal site to promote an understanding of risk and a immediate, appropriate response in the event of a crisis. The Report includes such information as how to prepare and respond to reputation, terrorism, large-scale earthquakes, or pandemic, as well as the usage of social media. By calling attention to issues as they arise, we are working to heighten crisis awareness and foster a proactive risk culture.

Crisis response training

To improve our ability to respond to a crisis, we regularly conduct emergency response training, comprehensive disaster prevention drills, and safety confirmation drills once or twice a year.

Mid- to long-term targets and performance

Mid- to long-term targets

By implementing the following basic strategies, we aim to build a management structure for handling risks and crises that can evaluate to a global level.

- Clarify significant risks (corporate risks) to be managed and strengthen its response structure.
- Expand the scope of target risks (response to strategic risks, reputation risk).
- Strengthen the ability to respond when risks become realized.

Important Initiatives in 2018

- Strengthened our practical ability to respond to corporate risks.
 - Established PDCA cycle for managing significant risks at overseas subsidiary and affiliated company.
 - Enhanced our ability to respond to emerging risks that occur in the changing business environment.
 - Improved employee awareness and sensitivity to risk.
- etc.

Performance in 2018

Performance

Implementation of corporate risk response reinforced

In 2018, we reviewed the themes of corporate risk as follows, in light of changes in the business environment. Then we strengthened our practical ability to respond to risks based on progress management of the Risk and Crisis Management Committee.

- Large-scale earthquakes and other natural disasters
- Personal information protection
- Pandemics
- Exchange rate fluctuations
- Reputation
- Response to product quality issues
- Change in structures of sales channel
- Risks associated with the use of digital media
- Risks related to business in Asia etc.

Strengthening significant risk management at overseas bases

Regarding risk management at the subsidiaries out side Japan, their management is promoting risk management by selecting significant risks and examining countermeasures against them. In 2018, we established PDCA cycle for risk management through coordinating risk management at each of our subsidiaries with activities regarding corporate risks and our responsible department in Japan.

Improved ability to respond in a crisis

We disseminated guidelines, formulated action plans,

and put in place a response structure for significant risks, including corporate risks. We improved our information collection system and analysis capabilities, and also implemented response training to strengthen our response capabilities in the event of a crisis.

Improved employees' awareness and sensitivity to risk

One educational initiative is the use of the internal portal website to heighten crisis awareness among employees. On the website, we warn about realized risks, and post "Risk and Crisis Management Report" once a month to facilitate an accurate understanding of risk and to enable an appropriate and immediate response when a crisis does occur. The report provides many kinds information, including information on strategic risks, corporate scandals, natural disasters, warehouse fires, infectious diseases, reputation risks, personal information management and cautions for overseas business trips.

Emerging risks

During the review of corporate risk topics in 2018, discussions were held about new risks.

Due to the ocean plastic waste problem in recent years, global monitoring the use of plastics in products, and product containers and packaging have been intensified, and regulations in each country on the use and disposal of plastics have been tightened. In addition, with the rapid expansion of digital media, the way that companies communicate with consumers has also changed dramatically. We believe there needs to be greater aware of the risks associated with an expanded use of digital media for marketing and other purposes.

At the same time, international trade conflicts have also developed in other fields such as technology, and are now more complex. Accordingly, it is now necessary to pay attention to the impact on business activities resulting from both increasing raw material costs and the tightening up of regulations. We are making more efforts to respond to these changes in terms of both opportunity and risk.

Main training/drills in 2018

- Comprehensive disaster drills (implemented at major global plants).
- Emergency response training presumed on a large-scale earthquake, BCP training (implemented twice in Japan).
- Safety confirmation drills presumed on a large-scale earthquake (implemented twice in Japan).
- Personal information leak response training.
- Emergency reporting training from overseas bases to Kao Head Office in Japan (implemented at 25 overseas sites).
- Japan-based media training and risk communication training.
- High-risk area business trip training, security assessments (overseas sites).

Reviews of performance

The steady implementation of the actions planned at the beginning of the year led to an increase in employees' awareness of risk and an increase in their ability to respond. They were able to respond quickly to actual natural disasters. The issues and additional assumptions that were revealed will be reflected in next year's training (stress tests, deepening of BCP).

Kao's approach

The Kao Group is working to strengthen information security in order to protect information assets that include confidential information (trade secrets) and personal information, as well as IT hardware, software and many kinds of data records, in accordance with Kao's Information Security Policy. Kao promotes information security through the use of a PDCA cycle created to set internal rules and ensure that those rules are observed and that internal controls are implemented thoroughly.

Kao's creating value to address social issues

Social issues we are aware of

Every company uses IT to promote efficiency in its business and operations, and uses data to develop innovations and initiate reforms. Information technology has spawned new cross-industry growth areas and the engagement of diverse human resources.

The rising use of IT has also recently increased the threat of cyberattacks, which can temporarily interrupt business activities and cause information leakage. Cyberattacks adversely affect business performance and have turned cybersecurity into a social issue.

Kao's creating value

Kao hopes to contribute to improving the security measures of the entire industry by sharing information with other companies in the industry about the cyberattacks that Kao has experienced through our participation in information-sharing networks: the Initiative for Cyber Security Information sharing Partnership of Japan (J-CSIP), which is directed by the Information technology Promotion Agency, Japan (IPA), the National Police Agency's Cyber Intelligence Information Sharing Network, and the early warning information system of the Japan Computer Emergency Response Team Coordination Center (JPCERT/CC).

Risks related to realization of our vision by 2030

A major risk is the occurrence of cyberattacks that can cause the extended suspension of production, sales, marketing, and R&D activities, along with the loss of corporate trust due to information leaks.

Opportunities related to realization of our vision by 2030

By strengthening cybersecurity measures and the management of data—trade secrets and personal information—can be utilized in new ways and new styles of working enabled through the use of networks.

Contributions to the SDGs



Policies

We have formulated our Information Security Policy, Guidelines on Handling Trade Secrets, Guidelines on Handling Personal Information and IT Security Guidelines. We also carefully manage cybersecurity measures, trade secrets, and personal information. Such efforts are carried out in accordance with laws

and regulations and the guidelines set forth by government agencies and committees, and are also designed to clarify Kao's management framework and management methods.

Education and promotion

To ensure that employees throughout the group fundamentally understand the issues of protecting trade secrets and personal information, internal education is provided at times of the year when new hires are assigned positions or personnel transfers are made. We arrange lectures by external instructors for the members of the TS & Personal Information Protection Committee and for Personal Information Controllers, and awareness-raising activities are held to familiarize our staff with the latest trends. Awareness-raising materials for education at the level of the individual divisions are provided to the members of the TS & Personal Information Protection Committee and Personal Information Controllers. Company-wide warnings and awareness-raising messages for all staff are sent via the company intranet portal site.

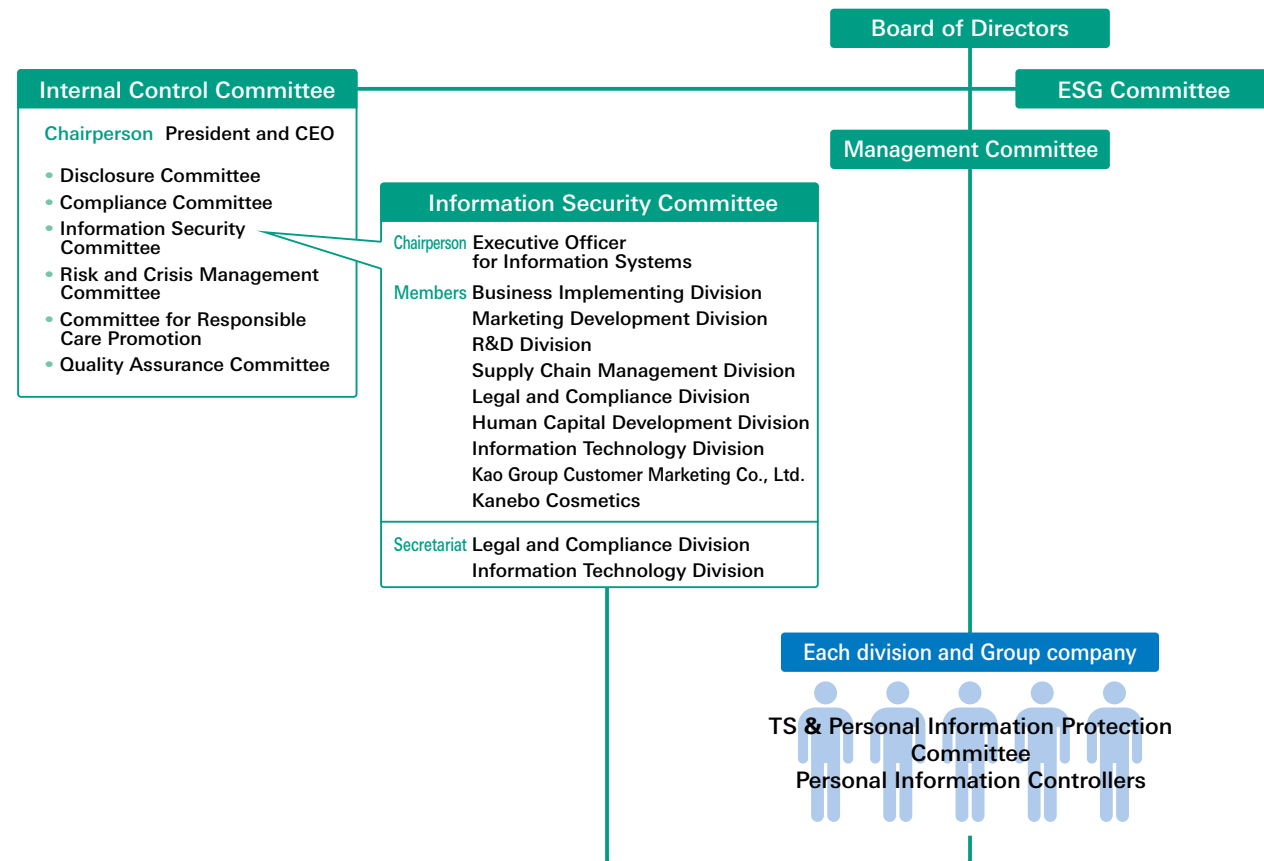
Also, to evaluate the effectiveness of the in-house education, self-checks are performed. On the basis of the results obtained, any problems that may exist are identified, improvement targets are set, and improvement activities are implemented.

Framework

We have appointed executive officers to serve as Chair and Vice-Chair of the Information Security Committee, and both the committee members and the staff of the committee's secretariat are drawn from different divisions, including Human Capital Development, Information Technology, Marketing, Intellectual Property Management, Production and Engineering, and Legal and Compliance. In this way, we benefit from a wide range of perspectives when determining policies, formulating internal rules, putting management systems in place, and implementing awareness-raising activities.

The Information Security Committee reports on its activities to the Internal Control Committee on a quarterly basis, and the Internal Control Committee reports to the Board of Directors on the activities of all subordinate committees. The report contains the activity targets of the current fiscal year, plus progress status and performance evaluations, and is reported in the fourth quarter, together with the activity targets for the coming fiscal year. The global system places the information security committees of each country under the umbrella of Japan's Information Security Committee. Primarily for Europe and the Americas, which have taken measures to be GDPR compliant, and China, which already has a corresponding information security body, we will develop the system in fiscal 2019.

Information Security Management System



* As of December 2018.

Mid- to long-term targets and performance

Mid- to long-term targets

- Protection of information assets such as trade secrets, personal information, hardware, software, and many kinds of data records, including cybersecurity measures.
- In the event of an information leak or other emergency, the quick confirmation of facts, decision on a response, and the formulation and implementation of measures to prevent recurrence.

Anticipated benefits from achieving Mid- to long-term targets

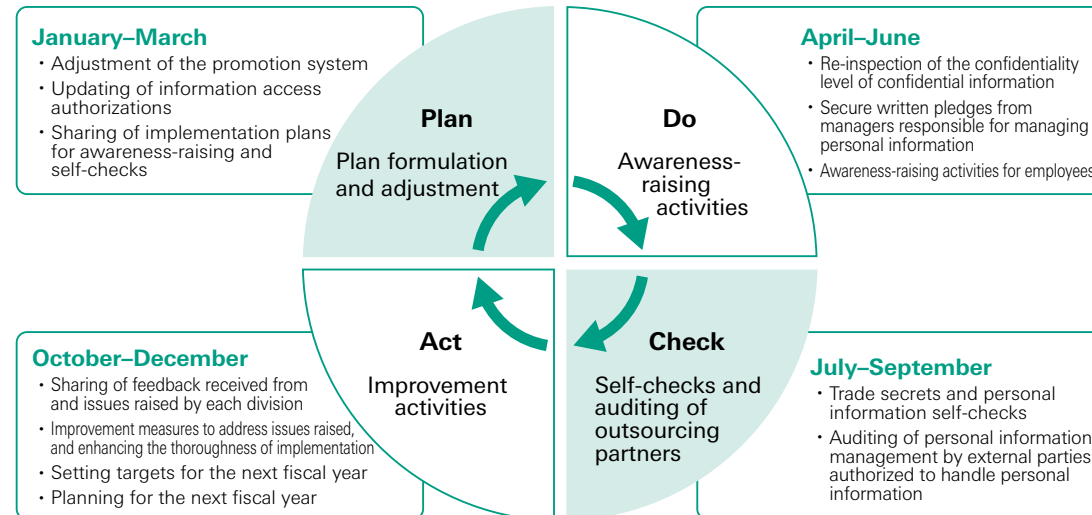
Cost reduction or profit expansion

Cybersecurity measures can reduce costs incurred to respond to leaks of trade secrets or personal information by preventing such leaks. Also, damage can be minimized if measures are in place to respond to the leak of trade secrets or personal information.

Impacts on society

Implementing cybersecurity measures for the entire supply chain will play a part in improving cybersecurity for the entire industry and for Japanese companies overall.

PDCA cycle for information security activities



Performance in 2018

Performance

The PDCA cycle was implemented in TS and personal information protection promotion activities.

First Quarter: Plan formulation and adjustment

- Adjustment of TS and personal information protection promotion system.
- Targeted e-mail training.
- Report on GDPR response to the Supervisory Board.

Second Quarter: Awareness-raising activities

- TS awareness-raising activities in 99 divisions, departments, and affiliated companies in Japan.
- Personal information awareness-raising activities in 77 divisions, departments and affiliated companies in Japan.
- Personal information leak response training.
- Website GDPR compliance implementation for the EU.
- Report on GDPR compliance at the Board of Directors meeting.
- Confirmation of status of compliance with China's Cybersecurity Law.
- Ministry of Economy, Trade and Industry (METI) "Cybersecurity Management Guidelines V2.0" compliance.

Third Quarter: Self-checks and auditing of outsourcing partners

- Self-checks on trade secrets in 109 divisions, departments and affiliated companies in Japan.
- Self-checks on personal information in 88 divisions, departments and affiliated companies in Japan.
- Paper audits of 182 subcontractors that handle personal information.

Fourth Quarter: Improvement activities

- The 25th TS & Personal Information Protection Promotion Meeting was held at the Plenary Meeting (relayed to remote locations via Web teleconference) on November 15, 2018 at which a 2018 incident report on trade secrets and personal information was presented, feedback was given on self-checks, and improvement targets were set.
- Implementation of overseas security assessment: 10 companies in Asia, 3 in the Americas, 3 in Europe.

Reviews of performance

It is necessary to carry out promotion activities to protect trade secrets and personal information on a continuous basis every year. Even those who fully understand TS and personal information protection lose clarity in their knowledge over a number of years, increasing the risk of an incident. It is important that all employees, including new hires and mid-career hires, understand and follow the Kao Group's TS and personal information protection rules. We have also begun to consider TS and personal information protection promotion activities as necessary to expand globally.

Collaboration with stakeholders

We contribute to the enhancement of information security in Japan's chemical industry through our participation in the Security Information Management Subcommittee established by the Japan Chemical Industry Association (JCIA), an industry body whose members include chemical product manufacturers.

We also participate in two information-sharing networks that work to combat cyberattacks: the Initiative for Cyber Security Information sharing Partnership of Japan (J-CSIP), which is directed by the Information technology Promotion Agency, Japan (IPA), and the National Police Agency's Cyber Intelligence Information Sharing Network. Starting in 2017, we are also participating in the JPCERT Coordination Center's Early Warning Information program.

Through our participation in these information-sharing networks, besides obtaining information about software vulnerabilities and cyberattacks, we are also able to disclose and share information about cyberattacks that we have experienced, thereby contributing to the enhancement of cyberattack prevention measures in Japan.

In June 2018, an incident occurred in which a false Kao marketing campaign was created, aimed at stealing the personal information of consumers. To address this attack, we issued a warning on the Kao website and on Kao's official Twitter and Facebook accounts, and worked with consumers to prevent damage.

Our initiatives

First Quarter: Plan formulation and adjustment

Adjustment of TS and personal information protection promotion system

In line with the changes in roles due to organizational restructuring and personnel changes, adjustments were made for 46 members of the TS & Personal Information Protection Committee, 35 supervisors who handle personal information, and one Information Security Committee member. To ensure that the Kao Group's trade secret and personal information protection promotion activities are not interrupted even if organizational changes or personnel changes are made, the adjustments assure that a handover to the next people in charge will take place.

Targeted e-mail training

The fourth targeted e-mail training was conducted in February 2018 for 19,746 people in the Kao Group in Japan, and the attachment open rate was 13.7%, an improvement over last year. It is still necessary to ensure that every employee is able to identify suspicious e-mails with an awareness of cybersecurity so as not to inadvertently open attachments.

Open rate in targeted e-mail training

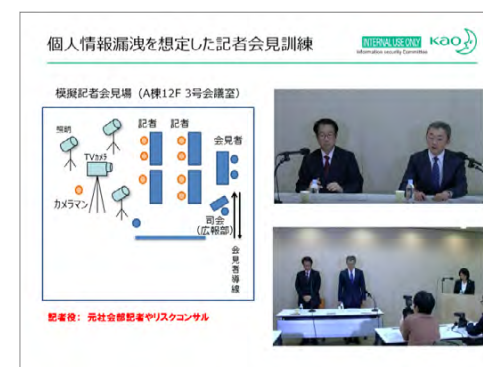
	2015	2016	2017	2018
Open rate	21.3%	31.5%	18.5%	13.7%

Second Quarter: Awareness-raising activities

Personal information leak response training

A personal information leak response drill was conducted in April 2018 in two parts: Part one—Incident response training; and Part two—Press conference training.

In the incident response training, Kao's servers were infected with malware by a cyberattack, resulting in an assumed leak of personal information. Several crisis response meetings were held at which discovered facts were shared and countermeasures studied and implemented. In the press conference training, two executive officers took the podium and were peppered with tough questions by consultants playing the role of the press. An issue identified through these training sessions was the need for call center outsourcing and capacity planning. Before announcing a leak of personal information, a number for consumers to call needs to be set up. Assuming that the answering of phone calls cannot be adequately handled with internal resources, a call center would have to be set up on short notice and the call center's personnel increased to the maximum. The training made clear that it would be necessary to choose a contractor in advance who would be able to do both.



From press conference for personal information leak response training

METI "Cybersecurity Management Guidelines V2.0" compliance

The Japanese government's Cybersecurity Management Guidelines V2.0, revised in November 2017, define three principles that executives need to recognize and ten important items concerning which they should instruct the chief information security officer (CISO). The latter refers to the National Institute of Standards and Technology (NIST) security framework. Kao uses NIST's security framework to ascertain the group's current status, identify issues, and make improvements.

Third Quarter: Self-checks and auditing of outsourcing partners

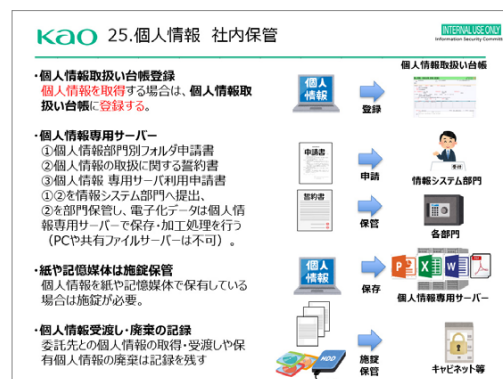
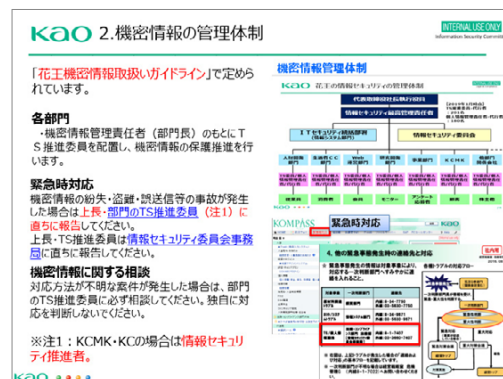
Self-checks of TS and personal information protection

Trade secret self-checks are conducted every year as part of the thorough implementation of awareness-raising activities and efforts to develop division manuals, implement TS labeling, and manage confidential information. In 2018, the self-checks took place from July 9 to August 10.

Personal information self-checks were conducted at the same time to similarly raise awareness, and also to manage the retention of personal information and determine which outsourced tasks involve the handling of personal information. Feedback on the self-checks was given at the TS & Personal Information Protection Promotion Meeting held on November 15, 2018, and improvement targets were set.

The improvement target for trade secrets was set in this way: "When taking confidential information out of the office is unavoidable, it should not be on paper but on a company PC or company smartphone." If it is a company PC locked with an ID or password, or a company smartphone locked with a PIN code, a theft or loss will not lead immediately to an information leak.

The improvement target for personal information was set in this way: "Personal information is to be kept on a server dedicated to personal information protected by a security function." When personal information is stored on a dedicated server, access can be controlled on a file-by-file basis, so even if a file is leaked, it can only be opened by the person who has the access permissions to open it, so the information is protected.



From information security awareness-raising materials.

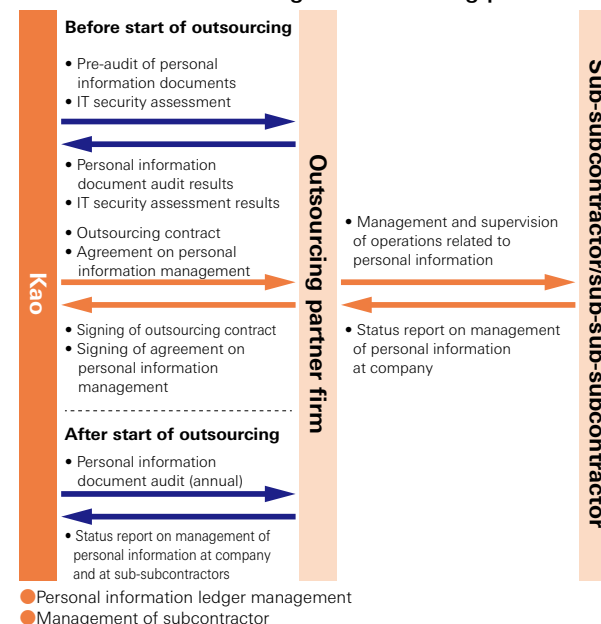
Auditing of external parties authorized to handle personal information

When the outsourcing of business tasks involves personal information, Kao conducts a preliminary audit to see if the subcontractor can manage personal information safely. We also conduct an IT security assessment if the subcontractor provides a service such as a Web campaign. A contract will

not be signed unless the personal information pre-audit and IT security assessment show no problems.

In addition, Kao manages and oversees outsourced personal information by conducting annual audits of subcontractors that handle personal information. In 2018, we conducted such audits at 182 companies and confirmed the status of personal information management and the systems used by subcontractors for protecting personal information. If personal information is stored by a subcontractor, we confirm the number of records and check for consistency with the number of data records registered in their personal information handling ledger system.

Outsourcing of business tasks that involve personal information and auditing of outsourcing partners



Fourth Quarter: Improvement activities

Holding of the 25th TS & Personal Information Protection Promotion Meeting

The 25th TS & Personal Information Protection Promotion Meeting was held on November 15, 2018. An external lecturer gave a talk on the topic of cybersecurity as a business continuity issue in which he gave many examples of cyberattacks in the last few years. Cyberattacks have become a major threat for causing leaks of confidential information and personal information. After the talk, a report was given on incidents related to TS and personal information in 2018. Feedback was then provided on TS and personal information self-checks, and improvement targets were set.



TS and Personal Information Protection Promotion Meeting
113 participants at head office venue; 174 participants via relay at other business sites.

GDPR compliance

The European Union's General Data Protection Regulation (GDPR) came into force on May 25, 2018. The GDPR regulates the handling and transfer of personal data, and is characterized by strict rules and penalties.

Main Compliance Measures

- Transfers of personal data outside the EU based on adequacy: the use of standard contractual clauses (SCCs).
- Respect for an individual's exercise of rights: Privacy Policy update and Agreement to use of cookies.
- Establishment of data protection officer (DPO).
- Preparation of data protection impact assessments (DPIAs) and records of processing activities (RoPA).
- Security management measures (conclusion of Data Processing Agreement (DPA)).
- Obligatory disclosure upon infringement of rights.

Response to China's Cyber Security Law (CSL)

The Cybersecurity Law of China, which came into force in June 2017, requires that important data collected in China be stored in China. Personal information is classified as important data. If personal information is to be transferred across borders, it is necessary to indicate to the personal information provider "the purpose, scope and type of data being transferred and the recipient country or overseas

region," and obtain consent.

In addition, when transferring personal information across borders, it is necessary to undergo a security review by a government agency. The Kao Group processes personal information on a Japanese server as part of its information system for cosmetics customers. In order to meet China's legal requirements, the cosmetics customer system that deals with customers in China must be separated out and the data stored in China.

Security assessments outside Japan

Security assessments outside Japan are conducted by the Kao Group's overseas companies to check the following 158 items in order to identify areas where security measures are weak and to make improvements.

Main items to check

- Security policies and standards
- User authentication
- System operation & control
- IT asset management
- Control of the physical environment
- Protection from malware
- Incident management
- Compliance
- Handling of disaster recovery

In 2018, overseas security assessments were conducted at 10 companies in Asia, three companies in the Americas, and three companies in Europe to improve cybersecurity.

Kao's approach

At Kao, we are endeavoring to protect Research and Development (R&D) outcomes and effectively utilize the rights derived from these outcomes through cooperation between our Intellectual Property Division and research institutes to realize "Contributions to business and social through intellectual property (IP)."

Kao's creating value to address social issues

Social issues we are aware of

It is necessary to acquire IP and appropriately utilize one in order to use the technologies that we have created through *Yoki-Monozukuri* in ways that lead to the development of industry and contribute to society. There are social problems, for example, increasing counterfeit goods around Asia and existence of patent trolls who get expensive license fees with inappropriately utilizing IP.

Kao's creating value

Kao creates value that contributes to industry and society and transforms IP into assets by pursuing its true nature through particular attention to product development research and fundamental technology research. We also make global contributions through IP-related activities conducted by Kao Corporation and its Group companies both within and outside Japan working in tandem. In addition, we are ensuring acceleration in the pace of open innovation based on our IP strategy by entering into technical contracting.

Risks related to realization of our vision by 2030

In cases where it is not possible to acquire technology development linking industry and public benefit in the form of IP, difficulties arise in the ongoing development of products and pose risks to the realization of the company that we seek to be. Furthermore, the appearance of counterfeit goods with inferior quality gives rise to the risk of failing to meet the expectations of consumers regarding the value of our products, which makes it necessary to acquire IP and appropriately use one.

Opportunities related to realization of our vision by 2030

In addition to using the IP rights acquired through product development and fundamental technologies for our own products, we create opportunities to contribute to industry and society by making IP rights available through open innovation.

Contributions to the SDGs



Policies

Kao conducts its business activities by acquiring industrial property rights, such as patents, design rights and trademarks, and other IP rights as R&D results and names representing brand image, etc.

Kao also actively pursues the acquisition of rights in Asia, the Americas and Europe while vigorously protecting itself against any infringements of its legal rights, both within and outside Japan. Recently, Kao has been pursuing measures against counterfeit products in Asia and other regions.

At the same time, we are strengthening our global efforts to respect and avoid infringing on the rights of other companies, through undertaking R&D in such a way as to avoid infringing upon them from the initial stages and reconfirming existing patents before new product launches and taking action as necessary.

We also flexibly use IP by promoting open innovation.

Framework

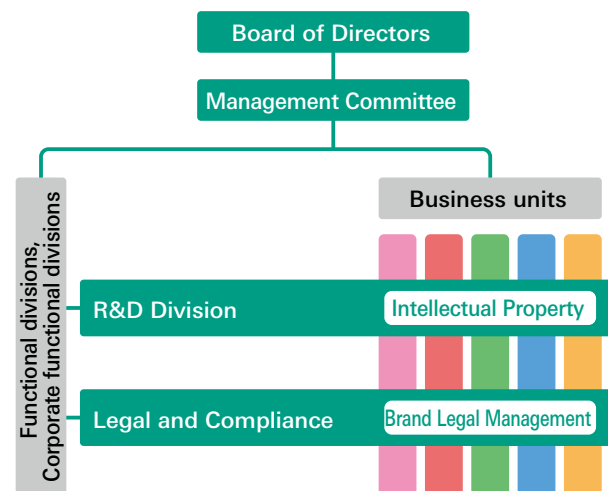
We implement Group-wide management of business-related intellectual property rights through the coordinated activities of our Intellectual Property Division (under R&D) and our Brand Legal Management Department (under Legal & Compliance).

The Intellectual Property Division plays a key role by promoting strategic applications for patents and technology-based design rights, which are indicators of key company values from the perspective of technology development capability, in a broad range of fields. The responsible of the party is the Senior Managing Director in charge of research.

Brand Legal Management collaborates closely with business divisions, considering cost effectiveness while submitting and managing applications for design-based design rights and trademark rights. The responsible of the party is the Executive Officer in charge of the Legal and Compliance Division.

When an important issue arises, Intellectual Property Division and Brand Legal Management Division submit it to the Management Committee for deliberation, and the Board of Directors discusses proposals when necessary. The Management Committee reports and deliberates on useful patents that involve patent invention once each year.

Industrial property rights management framework



* As of December 2018.

Education and promotion

We have implemented a wide range of IP education and training programs for researchers, with continual fine-tuning, for researchers aligned with, for example, their years of experience and roles. In 2018, a total of around 750 researchers participated in IP education and training programs.

We also make effective use of e-learning program to enhance the effectiveness of our educational activities; online learning has already been adopted as a tool for IP education and training by our researchers in Asia, the Americas and Europe.

As a result, researchers have been taking more initiative in acquiring IP rights for technologies and in building IP portfolio.

Collaboration with stakeholders

We have created opportunities for direct dialogue with management levels in the Japan Patent Office and European Patent Office, as well as in patent offices in emerging economies, in order to allow us to maintain an accurate grasp of the latest trends in IP administration. In 2018, we engaged in an exchange of views with the Japan Patent Office.

We have also created opportunities for direct dialogue with patent attorneys in major countries and regions (including Europe, the Americas, China, South Korea and Taiwan) and multiple emerging nations to deepen our understanding of global IP practice.

Mid- to long-term targets and performance

Mid- to long-term targets

- Continue to build and strategically utilize our own patent portfolio, optimized for both volume and quality, and create cross-category, global structures that can strategically use essential research results that can generate diverse product value.
- Ensure effective and efficient prevention of third party IP-related incidents.

Anticipated benefits from achieving Mid- to long-term targets

Cost reductions or profit increase

Kao, which deploys numerous products, is able to apply essential research results to product development in multiple fields, and therefore, will be able to increase the efficiency of R&D through appropriate IP protection, which will lead to higher product revenues.

Impacts on society

Public release of inventions that we create will not just contribute to the advancement of technology, but also will contribute to the public good through the release of beneficial technologies (see below).

Performance in 2018

Performance

The number of new patent applications in 2018 remained at the previous year's high level thanks to active development of new inventions. Income from patent licenses also remained at a high level as a result of active utilization of patent rights.

Reviews of performance

IP acquired through assignment also contributed to the development of our portfolio, and we are promoting use of that IP globally.

Examples of technologies publicly released:

Shampoo bottle notches

Kao has been placing a notch with a jagged shape on the sides of shampoo bottles since 1991. This enables persons with visual impairment as well as persons with normal vision who wash their hair with their eyes closed to identify the bottle by touch.

Believing that a lack of uniformity in the industry concerning the use of these notches would lead to consumer confusion, we withdrew our utility model application and worked through the Japan Cosmetic Industry Association to call on other companies to adopt an industry standard. As a result, the agreement of numerous companies in the industry was obtained. Now, most shampoo bottles have notches, and the use of notches has become an international standard due to Japan taking the initiative. (ISO 11156: 2011)



Notches first developed in 1991



Current notches

Our initiatives

Handling of Intellectual Property issues with other corporations

We regard intellectual property, including patents, as critical business assets, and are making efforts to effectively and strategically utilize such resources. In addition, in cases where IP issues with other corporations arise, we make efforts to resolve these issues through dialogue with those corporations when feasible, and through patent licensing where necessary.

Remuneration and incentives for employee inventions

The incentive system for employee inventions is intended to celebrate significant inventions by researchers from our company which contribute to our business operations. We give weight to the perspective that this will incentivize further inventions. Incentives include those awarded for patents utilized internally at Kao, which have led to excellent commercial outcomes, and license income incentives for patents which have produced significant income as a result of licensing to third parties.

We continued to implement incentive systems based on internal utilization of inventions and licensing income in 2018, marking 19 consecutive since the launching of this system at Kao Corporation. Every year the President offers words of appreciation

and encouragement at an awards ceremony for presentation of the incentives to the inventors.

Employee invention systems are implemented on a country-by-country basis, and Group companies in Asia, the Americas, and Europe continued to establish their own incentive systems.

Promotion of industrial property rights management

We consider that the acquiring of the outcomes of R&D at Group companies as industrial property rights is an important step in realizing our *Yoki-Monozukuri* globally and in responding to local consumers and client needs. For this reason, we actively provide platforms for exchange and mutual inspiration among employees with responsibility for IP at Kao Corporation and Group companies both within and outside Japan, while taking measures to execute related work duties collaboratively. We also focus our capacities to support IP-related activities at different localities, with an emphasis on IP education for researchers.

With the increase in the number of Group companies and the lively state of invention activity around the world, we are striving to ensure closer coordination between countries with respect to IP activities. In 2018, there were a large number of new patent applications from Group companies in six countries outside Japan.

Response to the counterfeit goods problem in emerging nations

In regard to business expansion in emerging nations, the risk posed by the rapid diffusion of counterfeit goods increases for products which are well-received locally. It is thus very important to find appropriate countermeasures after having developed a clear picture of the current situation with regard to counterfeit goods. Some counterfeit goods are associated with safety concerns. In such cases it is not merely a question of protecting the brand value of the Kao product being counterfeited; it also becomes imperative that countermeasures to ensure the health and safety of local consumers are put in place.

China in particular could be described as a highly litigious society compared to Japan, as there are many more cases of IP-related litigation. There may thus be times when a resolute stance must be taken to address the issue of counterfeit goods in a lawsuit, depending on the particularities of the case.

In addition, to help prevent counterfeit goods from being imported, we have arranged for Kao personnel to act as instructors in Customs training sessions, teaching Customs personnel the key points to identify counterfeit items, and we have also been actively involved in seizure of imported counterfeit goods (border protection).

Management of trademarks and design rights

At Kao Corporation, the Brand Legal Management Department, which forms part of the Legal and Compliance Division, is in charge of trademark and design rights (some design rights are handled by the Intellectual Property Division under R&D). We conduct adequate availability searches for new names or designs in order not to infringe any rights of third parties. We also try to widen the scope of rights acquired to maintain Kao's brand value.

Close collaboration with marketing teams is very important for our trademark activities in particular. For this reason, in addition to the Kao Corporation Head Office, we also have three offices in Europe and the U.S. for smooth communication with marketing teams worldwide. Furthermore, we manage the entire schedule of naming processes, from the beginning of name creation through trademark filing and decision of names, in order to ensure timely naming synchronized with product development schedules.

We consolidate systems for the early elimination of counterfeit goods which have been on the rise in recent years. We cooperate with governmental authorities, e-commerce site managers, and peer companies in the industry, while we also reinforce our monitoring of markets including e-commerce sites.

Topic Rainbow Dyes innovation achieved through collaboration with other industries and fields

Kao and Fujifilm Corporation conducted joint research that resulted in the successful development of non-reactive hair dyes that penetrate into the interior of hair and are resistant to removal, enabling unique, high-resolution colors and personal hair color expression. The two companies named these hair dyes Rainbow Dye.

Rainbow Dye is the result of the fusion of the hair control technologies created from the knowledge accumulated through many years of hair research by Kao Group research teams in Japan and Germany and the dye molecular design and synthesis technologies that enable to creation of vivid colors acquired by Fujifilm from many years of research and development on photosensitive materials. We also received cooperation from Professor Horst Hartmann of the Dresden University of Technology in Germany, an authority on dye design.

Rainbow Dye is characterized by the creation of three-dimensional colors with a sense of depth and self-expression through hair color, expanding the scope of self-expression using hair coloring. The dye also has the property of easily dyeing hair but does not easily dyeing skin and is highly durable.

Going forward, the Kao Group plans to develop and release hair color products for salons using the Rainbow Dye technologies employed in these hair dyes.



Comparison of oxidation dye color (top) and Rainbow Dye color (bottom)

External recognition

Kao's various initiatives which aim to contribute to the realization of a sustainable society have earned high recognition.

SRI indexes and evaluations

The latest status of our SRI indexes can be found on our website.



→ SRI indexes and evaluations (updated as needed)
www.kao.com/global/en/sustainability/recognition/

Conservation

Date of award	Group recognized	Awards/details	Sponsoring organization
2018/01	Kao Corporation	Acquired the "Certification for Business Facilities Engaging in Conservation of Biodiversity" for activities to promote biodiversity at the Kawasaki Plant. Over the course of 15 years, areas of trees, bushes, grasses, and high-growing and low-growing grassland were mixed on an integrated green area of approximately 7,000m ² and grown to create a natural-feeling forest.	Association for Business Innovation in Harmony with Nature and Community (ABINC)
2018/02	Kao Corporation	Received the JIPS Excellence Award of the Japan Chemical Industry Association. GSS created was promoted through collaboration by the Safety Science Research Laboratories and Product Quality Management, and the announcement of 125 matters, the highest in Japan, was highly evaluated.	Chemicals Management Committee of the Japan Chemical Industry Association
2018/02	Kao Corporation	The Kashima Plant received the Alternative Story Grand Prize at the 2018 Low-Carbon Cup Conference. The plant was recognized for the CO ₂ reduction effects of trees that have been ongoing for some 35 years as well as steady measures to restore forests rich in biodiversity in areas of sandy land.	Japan Network for Climate Change Actions
2018/03	Kao Corporation	Received the 14th LCA Society of Japan Forum Award. We were commended for introducing lifecycle assessment for individual products and engaging in active communications regarding environmentally conscious products with stakeholders not only in Japan, but also in China.	LCA Society of Japan
2018/04	Kao Corporation	Received the Contribution Prize of the 50th Ichimura Prize in Industry. We were recognized for making it possible to use concrete under all conditions through the development of a slurry rheology modifying agent.	Ichimura Foundation for New Technology agent.

Commitment to Society

Our Commitment to Society can be found on our website.



→ Commitment
www.kao.com/global/en/sustainability/declaration/

Date of award	Group recognized	Awards/details	Sponsoring organization
2018/04	Kao Corporation	The Smart Holder & Raku-raku Eco Pack Refill packaging received the Minister of Economy, Trade and Industry Award at the Japan Packaging Contest 2018. The award was granted in recognition of this new packaging with lower environmental impact achieved through a significant reduction in the amount of plastic used and a new concept that allows label designs to be changed according to diverse lifestyles.	Japan Federation of Printing Industries
2018/08	Kao Industrial (Thailand) Co., Ltd.	Received the Eco Factory Award from the Industrial Estate Authority of Thailand (IEAT) for Achieving Green Industry Level 4 (green culture level), the MOI Standard.	Ministry of Industry of Thailand
2018/10	Kao Corporation	Received the Good Design Award 2018 Grand Prize for the <i>Issho ni Eco-Nikki</i> (A journal for a collaborative water conservation challenge) educational program for elementary school students. These practical teaching materials for fourth graders learning about water conservation were highly regarded as being suitable for active learning in next-generation education regarding environmental conservation.	Japan Institute of Design Promotion
2018/12	Kao Industrial (Thailand) Co., Ltd.	Received the Best Waste Management Award Platinum Level (the highest level). The company achieved the highest rank of waste management in accordance with IEAT standards.	Industrial Estate Authority of Thailand (IEAT)

External recognition

Community

Date of award	Group recognized	Awards/details	Sponsoring organization
2018/02	Kao Corporation	Received the Consumer-Oriented Activities Prize of the Third ACAP Consumer-Oriented Activities Awards. We were recognized for its efforts to focus on social media, which is becoming ever more important, and accurately grasp the current environment in response to active support from Yahoo! Chiebukuro.	The Association of Consumer Affairs Professionals
2018/03	Kanebo Cosmetics Inc.	Kanebo won the Promotion Prize of the Women's Health and Work-Life Balance Awards. Achievements such as making beauty booklets for women that support their health and beauty and giving lectures at internal and external seminars were highly evaluated.	Women's Healthcare Awareness & Menopause Network Society
2018/07	Kao Corporation	Received fifth (2018) Thesis Support Award. We were recognized for scientific investigations showing that tea catechins may contribute to the improvement of overall endurance during exercise by enhancing the ability to transport oxygen.	Japan Sports Nutrition Association
2018/10	Kao Corporation	<i>Merries Sarasara Air Through</i> diapers won the Good Design Award 2018. The large surface irregularities with ample air in the center were highly evaluated as a design that reduces friction with the skin.	Japan Institute of Design Promotion
2018/11	Kao Corporation	Received the First-Year Selection of Consumer-Oriented Management Companies for the Best Practice of the Minister of State Commendation. This award recognizes companies that make outstanding efforts in accordance with the Voluntary Declaration of Consumer-Oriented. We were recognized for its diverse consumer-oriented management efforts over many years.	Consumer Affairs Agency
2018/11	Kao Corporation	We won the Excellent Presentation Award at the 31st Annual Meeting of the Japanese Society for Alternatives to Animal Experiments. We were recognized for proposing new risk assessment strategies using "h-CLAT," an alternative method developed by Kao.	Japanese Society for Alternatives to Animal Experiments

Corporate Culture

Date of award	Group recognized	Awards/details	Sponsoring organization
2018/05	Kao Corporation	Received the 12th Annual Responsible Care Award (RC Award) Grand Prize. We were commended for our continuous energy-saving activities starting in the earliest stages of the industry, resulting in having CO ₂ emissions intensity by half (in 2016 compared to 1990).	Japan Chemical Industry Association
2018/05	Kao Corporation	Won the WorldStar Award for <i>Segreta Airy Styling Oil</i> in a packaging contest. The compatibility between the base with a sleeve shrink film in the design of the product makes it possible to appreciate the combination of reduced environmental impact and premium sensibility.	World Packaging Organization

Corporate Culture

Date of award	Group recognized	Awards/details	Sponsoring organization
2018/06	Kao Huludao Jinxing Casting Materials Co., Ltd.	Received an Excellence Award at a safety speech conference sponsored by the municipal government. The theme was "life is the most important thing" and the speech, which discussed the importance of safe manufacturing activities for companies and respect for life, was highly evaluated.	Huludao City, Liaoning Province, China
2018/08	Kao Corporation	Won the Japan Graphic Designers Association Award and other awards in the 2018 Japan Packaging Contest. Our aqueous ink free of volatile organic compounds (VOCs) is used for shrink label printing on confectionery containers, and its contribution to reducing environmental impact was highly evaluated.	Japan Packaging Institute
2018/08	Kao (Taiwan) Corporation	Received the Award of Excellence in Corporate Social Responsibility. Kao (Taiwan) was recognized for its activities to promote corporate social responsibility in Taiwan.	CommonWealth Magazine
2018/08	Pilipinas Kao, Incorporated	Won a Company Volunteer Fire Brigade Award. The service of our volunteer fire company when a fire occurred at the neighboring areas of our plant is highly evaluated.	Bureau of Fire Department, Regional Headquarters, Cagayan de Oro City
2018/09	Kao Peony Co., Ltd.	Received the Disabled Persons Employment Excellent Company Award. Kao Peony received this award for its distinctive and outstanding measures relating to the employment of persons with disabilities.	Tokyo Metropolitan Government
2018/09	Kao Corporation	Won the Publicity Award from the Publicity Committee, Society of Polymer Science, Japan. We were recognized for the development of a completely new environmentally friendly cellulose derivative production technology and the development of a new amphiphilic cellulose derivative that exhibits unique performance based on this technology.	67th Symposium on Macromolecules
2018/12	Kao (Taiwan) Corporation	Recognized as Accredited healthy workplace. Kao (Taiwan) received this accreditation for promoting health policies by raising employee awareness and collaborating with the government.	Health Promotion Administration, Ministry of Health and Welfare

Governance

Date of award	Group recognized	Awards/details	Sponsoring organization
2018/01	PT. Kao Indonesia Chemicals	Received the Gold Award of Responsible Care. The company was highly evaluated for achieving the goals of the first prize standards for seven prescribed managed practices.	Responsible Care Indonesia
2018/02	Kao Corporation	We were selected for the Corporate Governance of the Year Prize as a leader and example of governance in Japanese industry.	Japan Association of Corporate Directors
2018/02	Kao Industrial (Thailand) Co., Ltd.	Received a Responsible Care Silver Ward. The company received high scores in the RC self-checks that cover all evaluation items, as well as for continuous reports of KPI.	Responsible Care Management Committee of Thailand (RCMCT)

Major sustainability indicators 103-2, 103-3

We have defined our sustainability indicators as follows and are conducting activities accordingly.

Conservation

Materiality	Vision	Items	Results				Targets	Results	Targets	SDGs*7
			2014	2015	2016	2017	2018		2020	
Conservation	Minimize environmental impact from our business activities and contribute to the realization of the One Planet Living vision for environmental sustainability									
	Reduction rate for CO ₂ emissions*1									
	Scope 1 and 2	-28%	-29%	-30%	-31%	-32%	-33%	-35%	12 13	
	Across the entire product lifecycle (Kao Group)	-15%	-17%	-14%	-14%	—	-17%	—		
	Across the entire product lifecycle (Kao Group in Japan)	-16%	-17%	-16%	-15%	—	-18%	-35%		
	Reduction rate for water consumption*1									
	All Kao Group plants and offices	-38%	-43%	-42%	-43%	-39%	-42%	-40%	6 12	
	Across the entire product lifecycle (Kao Group)	-18%	-21%	-17%	-19%	—	-21%	—		
	During product use (Kao Group in Japan)	-22%	-24%	-22%	-24%	—	-24%	-30%		
	Reduction rate for the amount of generated waste and other unwanted materials*1									
	All Kao Group plants and offices	-27%	-27%	-25%	-25%	-32%	-26%	-33%	12	
	Percentage of sales from products displaying the “eco together ” logo*2	27%	28%	29%	29%	—	29%	—	6 9 12 13	
	Procurement of sustainable palm oil*3	—	PKO*3 Completed traceability to the mills*4	PKO*3 Completed traceability to the mills	PO*3 Completed traceability to the mills to 97%	PO*3 Traceability to the mills	PO*3 Completed traceability to the mills to 98%	Traceability to the plantations	15	
	Procurement rate for sustainable paper and pulp*5	—	96%	99%	100%	—	100%	100%	15	
	Promote further environmental activities by engaging in environmental communication with society									
	Cumulative number of participants in environmental communication*6 (thousands of people)	240	460	690	910	1,200	1,230	1,000	12	
	Aim to contribute to the realization of a sustainable society by promoting sound chemical management through Strategic Approach to International Chemicals Management (SAICM) activities									
	Number of released safety summaries for Kao priority risk assessment substances	—	7 (Total 7)	3 (Total 10)	3 (Total 13)	3	3 Total 16	Total 20	3 12	
	Number of released GPS safety summaries for chemical products	47 (Total 77)	12 (Total 89)	18 (Total 107)	18 (Total 125)	16	16 (Total 141)	Total 150	3 12	

*1 Per unit (of sales), relative to FY2005

*2 Consumer products in Japan; sales rate of products that meet the criteria for “eco together” certification
“eco together” certification:
www.kao.com/global/en/sustainability/environment/statement-policy/eco-friendly-products/eco-together-logo/

*3 Progress of activities to trace the palm oil used by the Kao Group back to the plantation;
PKO: palm kernel oil, PO: palm oil

*4 As of the end of 2015, we were unable to establish the traceability of some of the derivatives that we had no choice but to purchase from other companies.

*5 Recycled and sustainable paper and pulp and packaging materials used in our products

*6 Cumulative number of participants in educational programs, factory tours, environmental events, etc., since 2014

*7 The goals to which the Kao Group can contribute among 17 Sustainable Development Goals

Major sustainability indicators 103-2, 103-3

Community

Materiality	Vision	Items	Results				Targets	Results	Targets	SDGs
			2014	2015	2016	2017	2018		2020	
Health	Improve and prevent obesity and lifestyle diseases by contributing to the creation of a society conducive to a healthy life									
	Number of participants in health educational programs* ⁸ (thousands of people)	1,610	2,610	2,320	2,880	100	100	—	3	
Hygiene	Prevent the spread of infectious diseases by contributing to the creation of a society conducive to a hygienic life									
	Number of participants in the educational programs of hygiene habits* ⁹ (thousands of people)	6,120	7,540	7,530	8,290	6,820	7,230	12,000	3612	
Aging	Support the lifestyles of the elderly by contributing to the creation of a society conducive to healthy aging, both mentally and physically									
	Cumulative number of the products improved with Universal Design considerations* ¹⁰	2,066	2,876	3,585	4,666	—	5,658	—	12	
	Implementation rate of improvements with Universal Design considerations* ¹⁰	80%	91%	71%	63%	—	56%	—		
Partnership with the community	Engage in social activities with local communities to contribute to an improved quality of life									
	Number of times information was provided to employees regarding volunteer activities	79	71	67	50	75	33	80	17	
	Educational activities for external parties provided through transmitted information	71	99	59	60	70	50	80		

*⁸ Number of participants in walking events and events for measuring visceral fat and teeth brushing education; QUPiO users; the QUPiO business was sold in April 2018, and accordingly, QUPiO users are not included. QUPiO: A program aimed at providing support for health promotion and preventive, lifestyle improvement measures based on knowledge obtained from joint research undertaken with the University of Tokyo using a database of health checkup data for one million people that covers an extended period of time.

*⁹ Number of participants in the educational programs for infant care, hand and hair washing, laundry and cleaning,

and menstrual hygiene (including the delivery of educational samples and tools) in Japan and the rest of Asia

*¹⁰ Products improved with Universal Design considerations represent products improved from considerations including accessibility, safety and usability. The implementation rate of improvements is the percentage of products improved with Universal Design considerations among all new and improved product items. The data until 2015 covers Japan, the data for 2016 covers Japan and the Americas, and the data for 2017 covers Japan, the Americas and Europe (not including salons and Molton Brown Ltd.).

Corporate Culture

Materiality	Vision	Items	Results				Targets	Results	Targets	SDGs
			2014	2015	2016	2017	2018		2020	
Integrity	Instillment of Integrity throughout the entire Kao Group									
	BCG test rate	87.2%	96.4%	97.5%	97.1%	—	— ^{*16}	100%	16	
	Number of serious compliance violations ^{*11}	0	0	0	0	0	0	0		
Diversity and Inclusion	Maximize employee potential through Diversity and Inclusion									
	Percentage of female managers	27.6%	27.5%	25.4% ^{*12}	25.1%	—	27.3%	30% ^{*13}	5	
	Percentage of female managers (Japan)	10.1%	10.4%	13.1% ^{*12}	14.6%	—	18.4%	15% ^{*13}	5	
	Cumulative attendance rate for manager training on diversity and increasing management capabilities	—	—	8.2%	55.7%	100%	94.0%	200% ^{*14}	10	
Employee health and safe workplaces	Improvement of health literacy and safety awareness among employees									
	Total participants for health promotion programs	—	—	31,885	36,259	—	40,768	35,900	8	
	Lost time accident frequency rate ^{*15}	0.54	0.61	0.67	0.55	0.20	0.77	Less than 0.10	8	

*¹¹ Serious compliance violations relating to the Kao Group's operations are internally defined and managed within the Kao Group.

*¹² The definition of "manager" was revised in 2016 following the promotion of integrated Group management.

*¹³ Not established as targets for 2020, but targets to be quickly realized as future milestones

*¹⁴ Cumulative attendance rate for manager training since 2016

*¹⁵ Number of persons dead or seriously injured in occupational accidents per million hours worked (including only accidents involving at least one lost work day and also the loss of a part of the body or a bodily function)

*¹⁶ Not implemented in 2018 due to a review of BCG activities.



Independent Assurance Report

To the President and CEO of Kao Corporation

We were engaged by Kao Corporation (the "Company") to undertake a limited assurance engagement of the environmental and social performance indicators marked with ☒ (the "Indicators") for the period from January 1, 2018 to December 31, 2018 included in its Sustainability Data Book 2019 (the "Data Book") for the fiscal year ended December 31, 2018.

The Company's Responsibility

The Company is responsible for the preparation of the Indicators in accordance with its own reporting criteria (the "Company's reporting criteria"), as described in the Data Book.

Our Responsibility

Our responsibility is to express a limited assurance conclusion on the Indicators based on the procedures we have performed. We conducted our engagement in accordance with the 'International Standard on Assurance Engagements (ISAE) 3000, Assurance Engagements other than Audits or Reviews of Historical Financial Information' and the 'ISAE 3410, Assurance Engagements on Greenhouse Gas Statements' issued by the International Auditing and Assurance Standards Board. The limited assurance engagement consisted of making inquiries, primarily of persons responsible for the preparation of information presented in the Data Book, and applying analytical and other procedures, and the procedures performed vary in nature from, and are less in extent than for, a reasonable assurance engagement. The level of assurance provided is thus not as high as that provided by a reasonable assurance engagement. Our assurance procedures included:

- Interviewing the Company's responsible personnel to obtain an understanding of its policy for preparing the Data Book and reviewing the Company's reporting criteria.
- Inquiring about the design of the systems and methods used to collect and process the Indicators.
- Performing analytical procedures on the Indicators.
- Examining, on a test basis, evidence supporting the generation, aggregation and reporting of the Indicators in conformity with the Company's reporting criteria, and recalculating the Indicators.
- Visiting the Company's Kawasaki Plant and Kao Specialties Americas LLC selected on the basis of a risk analysis.
- Evaluating the overall presentation of the Indicators.

Conclusion

Based on the procedures performed, as described above, nothing has come to our attention that causes us to believe that the Indicators in the Data Book are not prepared, in all material respects, in accordance with the Company's reporting criteria as described in the Data Book.

Our Independence and Quality Control

We have complied with the Code of Ethics for Professional Accountants issued by the International Ethics Standards Board for Accountants, which includes independence and other requirements founded on fundamental principles of integrity, objectivity, professional competence and due care, confidentiality and professional behavior. In accordance with International Standard on Quality Control 1, we maintain a comprehensive system of quality control including documented policies and procedures regarding compliance with ethical requirements, professional standards and applicable legal and regulatory requirements.

KPMG AZSA Sustainability Co., Ltd.

KPMG AZSA Sustainability Co., Ltd.
Tokyo, Japan
June 10, 2019

With the aim of ensuring more transparent disclosure of data relating to environmental protection and data relating to health and safety, KPMG AZSA Sustainability Co., Ltd. provides independent assurance for this data book. Indicators on which assurance is provided are marked with a check ☒.

Scope of Assurance

In general, we report the activities of the Kao Group (Kao Corporation and its subsidiaries). Exceptions to this scope have been clearly stated as graph's annotations and in the text.

Assured data

Category	Data	Pages
CO ₂	Energy consumption (all sites)	P40
	CO ₂ emissions across the entire product lifecycle (Kao Group)	P40
	GHG emissions (all sites)	P40
	CO ₂ emissions across the entire product lifecycle (Kao Group in Japan)	P40
	Scope 1 CO ₂ emissions (Thousand tons-CO ₂ e)	P41
	Scope 2 CO ₂ emissions (Thousand tons-CO ₂ e)	P41
	Scope 3 CO ₂ emissions (Thousand tons-CO ₂ e) *1,4,11,12	P41
Water	CO ₂ emission during distribution (Japan)	P45
	Water consumption (withdrawal) (all sites)	P53
	Water consumption during product use (Kao Group in Japan)	P53
	Water consumption across the entire product lifecycle (Kao Group)	P53
	COD pollution load (all production sites)	P53
	Water withdrawal amount by source (Million m ³)	P53
	Wastewater discharge by destination (Million m ³)	P53
Chemical substances	VOCs emissions (Kao Group in Japan)	P69
	NOx emissions	P69
Waste	Amount of waste reused or recycled (all sites)	P88
	Amount of generated waste and other unwanted materials (all sites)	P88
Product lifecycle and environmental impact	Output: Material procurement: CO ₂ emissions Output: Development/Manufacturing: GHG emissions Output: Distribution/Sales (facilities and company cars): GHG emissions Output: Distribution (transportation): CO ₂ emissions Output: Use: CO ₂ emissions Output: Disposal/Recycling: CO ₂ emissions	P92
Sustainable and responsible procurement	Ratio of certified paper/pulp materials (paper/pulp used in Kao products [excludes some products])	P142
	Certified palm oil purchases (Kao Group)	P143
Occupational safety	Lost time accidents frequency rate: Including both regular employees and temporary workers (Kao Group)	P179
	Lost time accidents frequency rate: Subcontractors (Kao Group)	P179
	Number of employees who experienced lost work days due to occupational diseases: Including both regular employees and temporary workers (Kao Group in Japan)	P180

GRI Standards table 102-55

This data book has been compiled with reference to the GRI Sustainability Reporting Standards.

General disclosures

100: Universal Standards				
GRI 102: General Disclosures 2016				
1. Organizational profile		Relevant Sections in Data Book		
	102-1	Name of the organization	●Kao Group Overview (external link)	—
	102-2	Activities, brands, products, and services	●Kao Group Fields of Business (external link)	—
	102-3	Location of headquarters	●Kao Group Overview (external link)	—
	102-4	Location of operations	●Kao Group Overview (external link)	—
	102-5	Ownership and legal form	●Kao Group Overview (external link)	—
	102-6	Markets served	●Global Locations (external link)	—
	102-7	Scale of the organization	●Kao Group Overview (external link)	—
	102-8	Information on employees and other workers	●Diversity and inclusion: Support for the active utilization of diverse human capital	P159
	102-9	Supply chain	—	—
	102-10	Significant changes to the organization and its supply chain	—	—
	102-11	Precautionary Principle or approach	<ul style="list-style-type: none"> ●Chemical substances: Kao's creating value to address social issues ●Chemical substances: Comprehensive Management System for Chemical Substances ●Chemical substances: Mid- to long-term targets and performance ●Process safety and disaster prevention: Emergency response drills to prepare for large-scale disasters ●Process safety and disaster prevention: Disaster prevention audits/Strengthening process safety and disaster prevention ●Information security: Kao's creating value to address social issues 	P56 P58 P60 P185 P186 P208
	102-12	External initiatives	<ul style="list-style-type: none"> ●Kirei Lifestyle Plan—Kao's ESG Strategy ●"Kao's approach: Contribution to the SDGs" in each section ●Sustainable and responsible procurement: Kao vendor summits/Conducting the supplier satisfaction survey ●Information security: Fourth Quarter: Improvement activities 	P13 P146 P214
	102-13	Membership of associations	—	—
2. Strategy				
	102-14	Statement from senior decision-maker	●Kao Integrated Report: CEO Message	—
	102-15	Key impacts, risks, and opportunities	<ul style="list-style-type: none"> ●Kirei Lifestyle Plan—Kao's ESG Strategy: Performance in 2018 ●Kirei Lifestyle Plan—Kao's ESG Strategy: The Kao ESG Commitments and Actions responds to global mega-trends ●Kirei Lifestyle Plan—Kao's ESG Strategy: Kao's ESG Commitments ●"Kao's approach: Risks and opportunities related to realization of our vision by 2030" in each section ●Process safety and disaster prevention: Emergency response drills to prepare for large-scale disasters ●Process safety and disaster prevention: Disaster prevention audits/Strengthening process safety and disaster prevention ●Risk and crisis management: Management of corporate risk/Management framework during times of crisis (an example) ●IP protection and utilization: Our initiatives 	P12 P15 P16-23 P185 P186 P205 P218-219
3. Ethics and integrity				
	102-16	Values, principles, standards, and norms of behavior	<ul style="list-style-type: none"> ●Kirei Lifestyle Plan—Kao's ESG Strategy ●For realization of the Kao Corporate Philosophy ●Integrity: Kao's creating value to address social issues/Policies ●Integrity: Our initiatives 	P4-23 P122-125 P126 P131-133
	102-17	Mechanisms for advice and concerns about ethics	<ul style="list-style-type: none"> ●Integrity: Framework ●Integrity: Compliance hotlines 	P127 P133

GRI Standards table 102-55

100: Universal Standards				
GRI 102: General Disclosures 2016				
4. Governance		Relevant Sections in Data Book		
	102-18	Governance structure	<ul style="list-style-type: none"> ●Kirei Lifestyle Plan—Kao's ESG Strategy: ESG promotion structure ●Corporate governance: Corporate governance structure ●Corporate governance: Directors and Board of Directors 	P9 P189 P190
	102-19	Delegating authority	<ul style="list-style-type: none"> ●Kirei Lifestyle Plan—Kao's ESG Strategy: ESG promotion structure 	P9
	102-20	Executive-level responsibility for economic, environmental, and social topics	<ul style="list-style-type: none"> ●Kirei Lifestyle Plan—Kao's ESG Strategy: ESG promotion structure ●CO₂: Framework ●Chemical substances: Framework ●Packaging: Framework ●Product quality management: Framework ●Integrity: Framework ●Overall vision for human capital development: Framework ●Risk and crisis management: Management of corporate risk/Management framework during times of crisis (an example) 	P9 P38 P57 P80 P97 P127-128 P150 P205
	102-21	Consulting stakeholders on economic, environmental, and social topics	<ul style="list-style-type: none"> ●Kirei Lifestyle Plan—Kao's ESG Strategy: ESG promotion structure 	P9
	102-22	Composition of the highest governance body and its committees	<ul style="list-style-type: none"> ●Corporate governance: Corporate governance reform ●Corporate governance: Corporate governance structure ●Corporate governance: Directors and Board of Directors ●Corporate governance: Audit & Supervisory Board Members and Audit & Supervisory Board ●Corporate governance: Committee for the Examination of Nominees for Directors and Compensation Advisory Committee 	P188 P189 P190 P192 P193
	102-23	Chair of the highest governance body	<ul style="list-style-type: none"> ●Corporate governance: Corporate governance reform ●Corporate governance: Committee for the Examination of Nominees for Directors and Compensation Advisory Committee 	P188 P193
	102-24	Nominating and selecting the highest governance body	<ul style="list-style-type: none"> ●Corporate governance: Corporate governance structure ●Corporate governance: Committee for the Examination of Nominees for Directors and Compensation Advisory Committee 	P189 P193
	102-25	Conflicts of interest	<ul style="list-style-type: none"> ●Corporate governance: Audit & Supervisory Board Members and Audit & Supervisory Board 	P192
	102-26	Role of highest governance body in setting purpose, values, and strategy	<ul style="list-style-type: none"> ●Kirei Lifestyle Plan—Kao's ESG Strategy: ESG promotion structure ●Corporate governance: Corporate governance structure ●Corporate governance: Directors and Board of Directors ●Corporate governance: Audit & Supervisory Board Members and Audit & Supervisory Board 	P9 P189 P190 P192
	102-27	Collective knowledge of highest governance body	—	—
	102-28	Evaluating the highest governance body's performance	<ul style="list-style-type: none"> ●Corporate governance: Evaluation of the effectiveness of the Board of Directors 	P191
	102-29	Identifying and managing economic, environmental, and social impacts	<ul style="list-style-type: none"> ●Kirei Lifestyle Plan—Kao's ESG Strategy: ESG promotion structure ●Risk and crisis management: Management of corporate risk/Management framework during times of crisis (an example) 	P9 P205
	102-30	Effectiveness of risk management processes	<ul style="list-style-type: none"> ●Risk and crisis management: Management of corporate risk/Management framework during times of crisis (an example) ●Risk and crisis management: Performance in 2018 	P205 P207
	102-31	Review of economic, environmental, and social topics	<ul style="list-style-type: none"> ●Kirei Lifestyle Plan—Kao's ESG Strategy: ESG promotion structure 	P9
	102-32	Highest governance body's role in sustainability reporting	—	—
	102-33	Communicating critical concerns	<ul style="list-style-type: none"> ●Risk and crisis management: Management of corporate risk/Management framework during times of crisis (an example) 	P205
	102-34	Nature and total number of critical concerns	<ul style="list-style-type: none"> ●Process safety and disaster prevention: Disaster prevention audits 	P186
	102-35	Remuneration policies	<ul style="list-style-type: none"> ●Corporate governance: Compensation system for Directors, Audit & Supervisory Board Members and Executive Officers 	P194
	102-36	Process for determining remuneration	<ul style="list-style-type: none"> ●Corporate governance: Compensation system for Directors, Audit & Supervisory Board Members and Executive Officers 	P194
	102-37	Stakeholders' involvement in remuneration	<ul style="list-style-type: none"> ●Corporate governance: Compensation system for Directors, Audit & Supervisory Board Members and Executive Officers 	P194
	102-38	Annual total compensation ratio	—	—
	102-39	Percentage increase in annual total compensation ratio	—	—

GRI Standards table 102-55

100: Universal Standards				
GRI 102: General Disclosures 2016				
5. Stakeholder engagement		Relevant Sections in Data Book		
	102-40	List of stakeholder groups	●Stakeholder Engagement	P24
	102-41	Collective bargaining agreements	—	—
	102-42	Identifying and selecting stakeholders	—	—
	102-43	Approach to stakeholder engagement	●Stakeholder Engagement	P24
	102-44	Key topics and concerns raised	●Sustainable and responsible procurement: Comments from Institute of Public & Environmental Affairs (IPE) ●Dialogue with employees	P147 P165-168
6. Reporting practice				
	102-45	Entities included in the consolidated financial statements	—	—
	102-46	Defining report content and topic Boundaries	—	—
	102-47	List of material topics	●Kirei Lifestyle Plan—Kao's ESG Strategy: Kao's ESG Commitments and Actions ●Kirei Lifestyle Plan—Kao's ESG Strategy: Matrix of Materiality	P5 P8
	102-48	Restatements of information	—	—
	102-49	Changes in reporting	—	—
	102-50	Reporting period	●Editorial Policy	P3
	102-51	Date of most recent report	●Editorial Policy	P3
	102-52	Reporting cycle	●Editorial Policy	P3
	102-53	Contact point for questions regarding the report		Back cover
	102-54	Claims of reporting in accordance with the GRI Standards	— (This data book has been compiled with reference to the GRI Standards 2016, GRI 303: Water and Effluents 2018 and GRI 403: Occupational Health and Safety 2018)	
	102-55	GRI content index	●GRI standards table	P225-232
	102-56	External assurance	●Editorial Policy ●Independent assurance report	P3 P224
GRI 103: Management Approach 2016				
	103-1	Explanation of the material topic and its Boundary	●Kirei Lifestyle Plan—Kao's ESG Strategy: Matrix of Materiality ●Kirei Lifestyle Plan—Kao's ESG Strategy: Impacts on society through the value chain ●Kirei Lifestyle Plan—Kao's ESG Strategy: Kao's ESG Commitments ●"Kao's approach" in each section	P8 P14 P16-23
	103-2	The management approach and its components	●Kirei Lifestyle Plan—Kao's ESG Strategy: Selection process for the Kao Actions as material themes ●Kirei Lifestyle Plan—Kao's ESG Strategy: Mid- to long-term targets ●Kirei Lifestyle Plan—Kao's ESG Strategy: Kao's ESG Commitments	P7-8 P10-11 P16-23
	103-3	Evaluation of the management approach	●Kirei Lifestyle Plan—Kao's ESG Strategy: Selection process for the Kao Actions as material themes ●Kirei Lifestyle Plan—Kao's ESG Strategy: Mid- to long-term targets ●"Kao's approach" in each section	P7-8 P10-11

GRI Standards table 102-55

Materials

200: Economic topics					
Economic Performance			Relevant Sections in Data Book		Indicators on which third-party assurance is provided (☑)
GRI 201: Economic Performance 2016	201-1	Direct economic value generated and distributed	—	—	
	201-2	Financial implications and other risks and opportunities due to climate change	●CO ₂ : Kao's creating value to address social issues/Policies/Framework/Mid- to long-term targets and performance	P35-39	
	201-3	Defined benefit plan obligations and other retirement plans	—	—	
	201-4	Financial assistance received from government	—	—	
Market Presence					
GRI 202: Market Presence 2016	202-1	Ratios of standard entry level wage by gender compared to local minimum wage	—	—	
	202-2	Proportion of senior management hired from the local community	—	—	
Indirect Economic Impacts					
GRI 203: Indirect Economic Impacts 2016	203-1	Infrastructure investments and services supported	●Initiatives for the environment: Seventh year of water conservation campaign in cooperation with the Chinese government	P34	
	203-2	Significant indirect economic impacts	—	—	
Procurement Practices					
GRI 204: Procurement Practices 2016	204-1	Proportion of spending on local suppliers	—	—	
Anti-corruption					
GRI 205: Anti-corruption 2016	205-1	Operations assessed for risks related to corruption	—	—	
	205-2	Communication and training about anti-corruption policies and procedures	●Integrity: Framework ●Integrity: Our initiatives	P127 P131-133	
	205-3	Confirmed incidents of corruption and actions taken	—	—	
Anti-competitive Behavior					
GRI 206: Anti-competitive Behavior 2016	206-1	Legal actions for anti-competitive behavior, anti-trust, and monopoly practices	—	—	
300: Environmental topics					
Materials			Relevant Sections in Data Book		Indicators on which third-party assurance is provided (☑)
GRI 301: Materials 2016	301-1	Materials used by weight or volume	●Product lifecycle and environmental impact	P92-93	
	301-2	Recycled input materials used	●Packaging: Our initiatives ●Waste: Our initiatives	P83-84 P90-91	
	301-3	Reclaimed products and their packaging materials	●Packaging: Recycle: Introducing recycled materials	P85	
Energy					
GRI 302: Energy 2016	302-1	Energy consumption within the organization	●CO ₂ : Performance in 2018 ●Product lifecycle and environmental impact	P40 P92-93	
	302-2	Energy consumption outside of the organization	—	—	
	302-3	Energy intensity	●CO ₂ : Performance in 2018	P40	
	302-4	Reduction of energy consumption	●CO ₂ : Performance in 2018 ●CO ₂ : 1. Efforts to reduce energy consumption	P40 P43-44	
	302-5	Reductions in energy requirements of products and services	●CO ₂ : Performance in 2018	P40	

GRI Standards table 102-55

300: Environmental topics					
Water			Relevant Sections in Data Book	Indicators on which third-party assurance is provided (✓)	
GRI 303: Water and Effluents 2018	303-1	Interactions with water as a shared resource	<ul style="list-style-type: none"> ●Water: Policies ●Water: Mid- to long-term targets and performance ●Water: Our initiatives 	P50-51 P52 P54-55	
	303-2	Management of water discharge-related impacts	<ul style="list-style-type: none"> ●Water: Policies ●Water: Our initiatives 	P50-51 P54-55	
	303-3	Water withdrawal	<ul style="list-style-type: none"> ●Water: Water withdrawal amount by source ●Product lifecycle and environmental impact 	P53 P92-93	✓
	303-4	Water discharge	<ul style="list-style-type: none"> ●Water: Wastewater discharge by destination ●Product lifecycle and environmental impact 	P53 P92-93	✓
	303-5	Water consumption	<ul style="list-style-type: none"> ●Water: Water consumption (withdrawal) (all sites) ●Water: Water consumption during product use (Kao Group in Japan) ●Water: Water consumption across the entire product lifecycle (Kao Group) ●Product lifecycle and environmental impact 	P53 P53 P53 P92-93	✓ ✓ ✓
Biodiversity					
GRI 304: Biodiversity 2016	304-1	Operational sites owned, leased, managed in, or adjacent to, protected areas and areas of high biodiversity value outside protected areas	<ul style="list-style-type: none"> ●Biodiversity: Business activities with consideration for the local ecosystem ●Biodiversity: Kawasaki Plant acquires third-party certification (Association for Business Innovation in harmony with Nature and Community® certification—ABINC certification) 	P75-76 P76	
	304-2	Significant impacts of activities, products, and services on biodiversity	<ul style="list-style-type: none"> ●Biodiversity: Kao's creating value to address social issues ●Biodiversity: Reducing the impact of business on biodiversity 	P72 P75	
	304-3	Habitats protected or restored	<ul style="list-style-type: none"> ●Biodiversity: Business activities with consideration for the local ecosystem 	P76-78	
	304-4	IUCN Red List species and national conservation list species with habitats in areas affected by operations	—	—	
Emissions					
GRI 305: Emissions 2016	305-1	Direct (Scope 1) GHG emissions	<ul style="list-style-type: none"> ●CO₂: Scope 1 CO₂ emissions (Thousand tons-CO₂e) ●Product lifecycle and environmental impact 	P41 P92-93	✓ ✓
	305-2	Energy indirect (Scope 2) GHG emissions	<ul style="list-style-type: none"> ●CO₂: Scope 2 CO₂ emissions (Thousand tons-CO₂e) ●Product lifecycle and environmental impact 	P41 P92-93	✓ ✓
	305-3	Other indirect (Scope 3) GHG emissions	<ul style="list-style-type: none"> ●CO₂: Scope 3 CO₂ emissions (Thousand tons-CO₂e) ●CO₂: Efforts in distribution/Efforts during use/Efforts in disposal and recycling ●Product lifecycle and environmental impact 	P41 P45-47 P92-93	✓ (1,4,11,12) ✓
	305-4	GHG emissions intensity	<ul style="list-style-type: none"> ●CO₂: Performance in 2018 ●CO₂: Efforts in distribution 	P40-41 P45	
	305-5	Reduction of GHG emissions	<ul style="list-style-type: none"> ●CO₂: Performance in 2018 	P40-41	✓
	305-6	Emissions of ozone-depleting substances (ODS)	<ul style="list-style-type: none"> ●CO₂: 3. Reducing the volume of leaked refrigerants and other greenhouse gases 	P44	
	305-7	Nitrogen oxides (NO _x), sulfur oxides (SO _x), and other significant air emissions	<ul style="list-style-type: none"> ●Chemical substances: Emission Management of Chemicals ●Product lifecycle and environmental impact 	P69 P92-93	✓
Effluents and Waste					
GRI 306: Effluents and Waste 2016	306-1	Water discharge by quality and destination	<ul style="list-style-type: none"> ●Water: Wastewater discharge by destination 	P53	✓
	306-2	Waste by type and disposal method	<ul style="list-style-type: none"> ●Waste: Performance in 2018 ●Product lifecycle and environmental impact 	P88 P92-93	✓
	306-3	Significant spills	<ul style="list-style-type: none"> ●Water: Compliance with environmental legislation 	P54	
	306-4	Transport of hazardous waste	<ul style="list-style-type: none"> ●Waste: Performance in 2018 	P88	
	306-5	Water bodies affected by water discharges and/or runoff	—	—	

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300: Environmental topics					
Environmental Compliance			Relevant Sections in Data Book		Indicators on which third-party assurance is provided (✓)
GRI 307: Environmental Compliance 2016	307-1	Non-compliance with environmental laws and regulations	●Water: Compliance with environmental legislation	P54	
Supplier Environmental Assessment					
GRI 308: Supplier Environmental Assessment 2016	308-1	New suppliers that were screened using environmental criteria	—	—	
	308-2	Negative environmental impacts in the supply chain and actions taken	●CO ₂ : Efforts in raw materials procurement ●Water: Efforts in raw materials procurement ●Sustainable and responsible procurement	P42 P54 P139-146	
400: Social topics					
Employment			Relevant Sections in Data Book		Indicators on which third-party assurance is provided (✓)
GRI 401: Employment 2016	401-1	New employee hires and employee turnover	●Diversity and inclusion: Support for the active utilization of diverse human capital	P159	
	401-2	Benefits provided to full-time employees that are not provided to temporary or part-time employees	—	—	
	401-3	Parental leave	●Diversity and inclusion: Employment system utilization status (Kao Corporation)	P163	
Labor/Management Relations					
GRI 402: Labor/Management Relations 2016	402-1	Minimum notice periods regarding operational changes	—	—	
Occupational Health and Safety					
GRI 403: Occupational Health and Safety 2018	403-1	Occupational health and safety management system	●Occupational safety: Policies ●Process safety and disaster prevention: Policies/Framework ●Responsible care activities: Status of international management system certification	P177 P183 P201	
	403-2	Hazard identification, risk assessment, and incident investigation	●Occupational safety: Mid- to long-term targets and performance ●Occupational safety: Status of occupational accident occurrences/Risk assessments of chemical substances ●Process safety and disaster prevention: Disaster prevention audits/ Strengthening process safety and disaster prevention/High-pressure gas safety inspection, auditing and verification	P178 P181 P186	
	403-3	Occupational health services	—	—	
	403-4	Worker participation, consultation, and communication on occupational health and safety	●Occupational safety: Education and promotion	P178	
	403-5	Worker training on occupational health and safety	●Occupational safety: Education and promotion ●Process safety and disaster prevention: Education and promotion ●Process safety and disaster prevention: Emergency response drills to prepare for large-scale disasters	P178 P184 P185	
	403-6	Promotion of worker health	●Health	P169-176	
	403-7	Prevention and mitigation of occupational health and safety impacts directly linked by business relationships	—	—	
	403-8	Workers covered by an occupational health and safety management system	—	—	
	403-9	Work-related injuries	●Occupational safety: Performance in 2018 ●Process safety and disaster prevention: Performance in 2018	P179-180 P184	✓ (Partial data)
	403-10	Work-related ill health	●Occupational safety: Performance in 2018: Number of employees who experienced lost work days due to occupational diseases (persons)	P180	✓ (Partial data)

GRI Standards table 102-55

400: Social topics					
Training and Education			Relevant Sections in Data Book		Indicators on which third-party assurance is provided (✓)
GRI 404: Training and Education 2016	404-1	Average hours of training per year per employee	●Human capital development: Performance in 2018	P154	
	404-2	Programs for upgrading employee skills and transition assistance programs	●Kirei Lifestyle Plan—Kao's ESG Strategy: Education to promote ESG ●"Kao's approach: Education and promotion" in each section ●Initiatives for the environment: Opportunities for environmental education and study ●Biodiversity: Raising awareness among employees and sharing information ●For realization of the Kao Corporate Philosophy: Performance in 2018 ●Integrity: Performance in 2018 ●Integrity: Compliance education ●Human capital development: Framework/Mid- to long-term targets and performance/Performance in 2018 ●Diversity and inclusion: Performance in 2018 ●Diversity and inclusion: Support for balancing work and childcare or family care responsibilities	P9 P30 P77 P125 P130 P132 P152-154 P157 P162	
	404-3	Percentage of employees receiving regular performance and career development reviews	—	—	
Diversity and Equal Opportunity					
GRI 405: Diversity and Equal Opportunity 2016	405-1	Diversity of governance bodies and employees	●Diversity and inclusion: Support for the active utilization of diverse human capital ●Diversity and inclusion: Promoting better understanding of disability and promoting the employment of persons with disabilities	P159 P160	
	405-2	Ratio of basic salary and remuneration of women to men	—	—	
Non-discrimination					
GRI 406: Non-discrimination 2016	406-1	Incidents of discrimination and corrective actions taken	—	—	
Freedom of Association and Collective Bargaining					
GRI 407: Freedom of Association and Collective Bargaining 2016	407-1	Operations and suppliers in which the right to freedom of association and collective bargaining may be at risk	—	—	
Child Labor					
GRI 408: Child Labor 2016	408-1	Operations and suppliers at significant risk for incidents of child labor	—	—	
Forced or Compulsory Labor					
GRI 409: Forced or Compulsory Labor 2016	409-1	Operations and suppliers at significant risk for incidents of forced or compulsory labor	—	—	
Security Practices					
GRI 410: Security Practices 2016	410-1	Security personnel trained in human rights policies or procedures	—	—	
Rights of Indigenous Peoples					
GRI 411: Rights of Indigenous Peoples 2016	411-1	Incidents of violations involving rights of indigenous peoples	—	—	
Human Rights Assessment					
GRI 412: Human Rights Assessment 2016	412-1	Operations that have been subject to human rights reviews or impact assessments	●Human rights: Performance in 2018 ●Human rights: Human rights due diligence process	P137 P138	
	412-2	Employee training on human rights policies or procedures	●Integrity: Compliance education ●Human rights: Human rights due diligence process	P132 P138	
	412-3	Significant investment agreements and contracts that include human rights clauses or that underwent human rights screening	●Human rights: Performance in 2018 ●Human rights: Human rights due diligence process	P137 P138	

GRI Standards table 102-55

400: Social topics					
Local Communities			Relevant Sections in Data Book		Indicators on which third-party assurance is provided (✓)
GRI 413: Local Communities 2016	413-1	Operations with local community engagement, impact assessments, and development programs	<ul style="list-style-type: none"> ●Initiatives for the environment: Our initiatives ●Chemical substances: Risk communication about chemical substances with stakeholders 	P32-34 P63	
	413-2	Operations with significant actual and potential negative impacts on local communities	—	—	
Supplier Social Assessment					
GRI 414: Supplier Social Assessment 2016	414-1	New suppliers that were screened using social criteria	●Human rights: Human rights due diligence process	P138	
	414-2	Negative social impacts in the supply chain and actions taken	<ul style="list-style-type: none"> ●Human rights: Human rights due diligence process ●Sustainable and responsible procurement 	P138 P139-146	
Public Policy					
GRI 415: Public Policy 2016	415-1	Political contributions	—	—	
Customer Health and Safety					
GRI 416: Customer Health and Safety 2016	416-1	Assessment of the health and safety impacts of product and service categories	<ul style="list-style-type: none"> ●Product quality management: Our initiatives ●Universal Design: Performance in 2018 ●Universal Design: Promoting the adoption of new safety icons for consumer products 	P99-100 P104 P105	
	416-2	Incidents of non-compliance concerning the health and safety impacts of products and services	●Product quality management: Product recall over the last 3 years	P99	
Marketing and Labeling					
GRI 417: Marketing and Labeling 2016	417-1	Requirements for product and service information and labeling	<ul style="list-style-type: none"> ●Initiatives for the environment: Expansion of products to display the “eco together” logo ●Initiatives for the environment: Product design with environmental considerations ●CO₂: Developmental efforts ●Chemical substances: Examples of Kao products that contribute to reducing the environmental impact ●Universal Design: Performance in 2018 ●Universal Design: Our new products launched in 2018 incorporated UD considerations ●Communication with consumers: Framework ●Communication with consumers: Performance in 2018 ●Communication with consumers: Providing information on the Kao website 	P30 P31 P43 P70-71 P104 P107 P110 P111 P112	
	417-2	Incidents of non-compliance concerning product and service information and labeling	—	—	
	417-3	Incidents of non-compliance concerning marketing communications	—	—	
Customer Privacy					
GRI 418: Customer Privacy 2016	418-1	Substantiated complaints concerning breaches of customer privacy and losses of customer data	—	—	
Socioeconomic Compliance					
GRI 419: Socioeconomic Compliance 2016	419-1	Non-compliance with laws and regulations in the social and economic area	●Integrity: Response to compliance violations, and legal violations in 2018	P133	

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Core subjects and issues	Pages of the Sustainability Data Book 2019	
6.2 Organizational governance	<ul style="list-style-type: none"> Kirei Lifestyle Plan—Kao's ESG Strategy Governance 	P4-23 P187-219
6.3 Human rights	<ul style="list-style-type: none"> Human rights Kao Business Conduct Guidelines (external link) 	P134-138 —
6.3.3 Due diligence	<ul style="list-style-type: none"> Kirei Lifestyle Plan—Kao's ESG Strategy Integrity Human rights Sustainable and responsible procurement Diversity and inclusion 	P4-23 P126-133 P134-138 P139-147 P155-164
6.3.4 Human rights risk situations	<ul style="list-style-type: none"> Human rights Diversity and inclusion 	P134-138 P155-164
6.3.5 Avoidance of complicity	<ul style="list-style-type: none"> Human rights Sustainable and responsible procurement Diversity and inclusion 	P134-138 P139-147 P155-164
6.3.6 Resolving grievances	<ul style="list-style-type: none"> Communication with consumers Integrity 	P108-112 P126-133
6.3.7 Discrimination and vulnerable group	<ul style="list-style-type: none"> Corporate citizenship activities Diversity and inclusion 	P113-120 P155-164
6.3.8 Civil and political rights	<ul style="list-style-type: none"> Integrity Dialogue with employees 	P126-133 P165-168
6.3.9 Economic, social, and cultural rights	<ul style="list-style-type: none"> Corporate citizenship activities Integrity Diversity and inclusion 	P113-120 P126-133 P155-164
6.3.10 Fundamental principles and rights at work	<ul style="list-style-type: none"> Integrity Overall vision for human capital development Human capital development 	P126-133 P148-150 P151-154
6.4 Labour practices		
6.4.3 Employment and employment relationships	<ul style="list-style-type: none"> Integrity Diversity and inclusion 	P126-133 P155-164

Core subjects and issues	Pages of the Sustainability Data Book 2019	
6.4.4 Conditions of work and social protection	<ul style="list-style-type: none"> Dialogue with employees 	P165-168
6.4.5 Social dialogue	<ul style="list-style-type: none"> Dialogue with employees 	P165-168
6.4.6 Health and safety at work	<ul style="list-style-type: none"> Occupational safety Process safety and disaster prevention Responsible care activities 	P177-182 P183-186 P195-201
6.4.7 Human development and training in the workplaces	<ul style="list-style-type: none"> Human capital development 	P151-154
6.5 The environment		
6.5.3 Prevention of pollution	<ul style="list-style-type: none"> Kirei Lifestyle Plan—Kao's ESG Strategy Initiatives for the environment Water Chemical substances Waste 	P4-23 P27-34 P48-55 P56-71 P86-91
6.5.4 Sustainable resource use	<ul style="list-style-type: none"> Kirei Lifestyle Plan—Kao's ESG Strategy Initiatives for the environment Water Biodiversity Sustainable and responsible procurement 	P4-23 P27-34 P48-55 P72-78 P139-147
6.5.5 Climate change mitigation and adaptation	<ul style="list-style-type: none"> Kirei Lifestyle Plan—Kao's ESG Strategy Initiatives for the environment CO₂ 	P4-23 P27-34 P35-47
6.5.6 Protection of the environment, biodiversity and restoration of natural habitats	<ul style="list-style-type: none"> Kirei Lifestyle Plan—Kao's ESG Strategy Initiatives for the environment Biodiversity Sustainable and responsible procurement 	P4-23 P27-34 P72-78 P139-147
6.6 Fair operating practices		
6.6.3 Anti-corruption	<ul style="list-style-type: none"> Integrity Corporate governance 	P126-133 P188-194

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Core subjects and issues	Pages of the Sustainability Data Book 2019	
6.6.4 Responsible political involvement	• Integrity	P126-133
6.6.5 Fair competition	• Integrity • Corporate governance	P126-133 P188-194
6.6.6 Promoting social responsibility in the value chain	• Kirei Lifestyle Plan—Kao's ESG Strategy • Communication with consumers • Integrity • Sustainable and responsible procurement • Corporate governance	P4-23 P108-112 P126-133 P139-147 P188-194
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This report has been compiled with reference to the recommendations for disclosure given by the Task Force on Climate-related Financial Disclosures (TCFD).

Governance

Disclose the organization's governance pertaining to climate-related risks and opportunities.			
Recommended disclosure content		Relevant sections in the Sustainability Data Book 2019	
a)	Framework of the Board of Directors' oversight of climate-related risks and opportunities	<ul style="list-style-type: none"> • CO₂: Framework • Water: Framework • Risk and crisis management: Framework 	P38 P51 P204
b)	The role of management in assessing and managing climate-related risks and opportunities	<ul style="list-style-type: none"> • CO₂: Framework • Water: Framework • Risk and crisis management: Framework 	P38 P51 P204

Strategy

Recommendation: Disclose the actual or latent impact on the business, strategy, and financial planning of climate-related risks and opportunities if such information is important.			
Recommended disclosure content		Relevant sections in the Sustainability Data Book 2019	
a)	Climate-related risks and opportunities the organization has identified over the short-, mid- and long-term	<ul style="list-style-type: none"> • CO₂: Risks and opportunities related to realization of our vision by 2030. • Water: Risks and opportunities related to realization of our vision for 2030 	P36 P49
b)	Impact of climate-related risks and opportunities on the organization's business, strategy and financial planning	<ul style="list-style-type: none"> • CO₂: Risks and opportunities related to realization of our vision for 2030 • CO₂: Mid- to long-term targets and performance • Water: Risks and opportunities relating to realization of our vision for 2030 • Water: Mid- to long-term targets and performance 	P36 P39 P49 P52
c)	Resilience of the organization's strategy, taking into consideration different climate-related scenarios, including a 2°C or lower scenario	<ul style="list-style-type: none"> • CO₂: Risks and opportunities relating to realization of our vision for 2030 • Water: Risks and opportunities relating to realization of our vision for 2030 	P36 P49

Risk management

Recommendation: Disclose how the organization is identifying, evaluating, and controlling climate-related risks.			
Recommended disclosure content		Relevant sections in the Sustainability Data Book 2019	
a)	Organization's processes for identifying and assessing climate-related risks	<ul style="list-style-type: none"> • CO₂: Framework • Water: Framework • Risk and crisis management: Policy • Risk and crisis management: Framework 	P38 P51 P203 P204
b)	Organization's processes for managing climate-related risks	<ul style="list-style-type: none"> • CO₂: Framework • Water: Framework • Risk and crisis management: Policy • Risk and crisis management: Framework 	P38 P51 P203 P204
c)	How processes for identifying, assessing, and managing climate-related risks are integrated into the organization's overall risk management	<ul style="list-style-type: none"> • CO₂: Framework • Water: Framework • Risk and crisis management: Policy • Risk and crisis management: Framework 	P38 P51 P203 P204

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Metrics and targets

Recommendation: Disclose indicators and targets used in the evaluation and control of climate-related risks and opportunities if such information is important.			
Recommended disclosure content		Relevant sections in the Sustainability Data Book 2019	
a)	Metrics used by the organization to assess climate-related risks and opportunities in line with its strategy and risk management process	<ul style="list-style-type: none"> • Kirei Lifestyle Plan—Kao's ESG strategy: Mid- to long-term targets-Making the world healthier and cleaner • CO₂: Mid- to long-term targets and performance • Water: Mid- to long-term targets and performance 	P10 P39 P52
b)	Scope 1, Scope 2, and if appropriate, Scope 3 greenhouse gas (GHG) emissions and related risks	<ul style="list-style-type: none"> • CO₂: 2018 results—Scope 1, 2, and 3 emissions 	P41
c)	Targets used by the organization to manage climate-related risks and opportunities and performance against targets	<ul style="list-style-type: none"> • Kirei Lifestyle Plan—Kao's ESG strategy: Mid- to long-term targets-Making the world healthier and cleaner • CO₂: Mid- to long-term targets and performance • Water: Mid- to long-term targets and performance 	P10 P39 P52

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Enriching lives, in harmony with nature.

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