

Our business is made possible throughout the entire product lifecycle by the various ecosystems that exist on the earth and the abundant natural bounty created from biodiversity. Kao vigorously undertakes sustainable raw material procurement and development of new technologies for the effective use of limited resources to prevent the degradation of biodiversity, one of the most pressing issues shared by the entire world. We will also strive to reduce the impacts of our business on biodiversity as well as promote social activities that lead to biodiversity improvements in regions where we have business sites. In addition, we engage with consumers and suppliers by assisting the recovery of an already polluted ecological environment in tackling the issues of ocean plastic pollution and providing products aimed at biodiversity conservation.

ESG Keyword

Aichi Biodiversity Targets

Development of a society that can continue to enjoy the benefits of biodiversity

Development and use of raw materials with minimal impact on biodiversity

Mainstreaming biodiversity

## Kao's creating value to address social issues

### Social issues we are aware of

Global Biodiversity Outlook 5 (GBO5) was published by the Secretariat of the Convention on Biological Diversity on September 15, 2020 to analyze whether the Strategic Plan for Biodiversity 2011–2020 and Aichi Biodiversity Targets are being met. Although significant progress was seen for most of the Aichi Biodiversity Targets, it showed that none of the 20 individual targets were fully realized.

For example, between 2010 and 2015, 32 million hectares of forest disappeared, and one million species of plants and animals are on the verge of extinction, which indicates that extinction is progressing at a speed of 1,000 to 10,000 species per year.

An aspect of current economic activities is that they rely on the consumption of precious natural resources. In addition, humanity's destruction of nature and the loss of biodiversity are leading people to come into contact with species that they never had before, which manifests the risk of new communicable diseases. Businesses are required to solve these issues.

Currently the post-2020 global biodiversity framework

is being developed. We are keenly aware of the need to take biodiversity conservation seriously with a strong sense of crisis acknowledging that the targets set here must be met.

Our businesses operations benefit from many biological resources including palm oil, and the degradation of biodiversity world-wide will significantly impact the sustainability of our business. Biodiversity needs to be taken into consideration throughout the product lifecycle. Establishing a process for sustainable raw material procurement is of particular importance. However, in purchasing RSPO certified palm oil, we have been facing various issues over the last ten years in palm oil tree production regions, including deforestation and the loss of biodiversity as well as human rights violations of people and farmworkers who live in those areas. By taking full advantage of our knowledge and human networks acquired so far, we aim for a future that brings about a positive change for the entire natural environment and all stakeholders connected with our business.

### Kao's creating value

IPBES\* believes that transformative change in economies, society, politics, and science and technology will be necessary in order to achieve the biodiversity targets. We set targets based on visions and policies specified by ESG management and push forward toward the prevention and restoration of the degradation of biodiversity and the development of a sustainable society in the future through our innovative technologies, products and daily initiatives to solve social problems.

\* IPBES

Intergovernmental science-policy platform on biodiversity and ecosystem services

We are contributing to the conservation of biodiversity from the following perspectives.

### Development of a society that can continue to enjoy the benefits of biodiversity

With regard to palm oil, paper and pulp, which are our main raw materials, we set targets for confirming that

# Biodiversity 102-12, 102-15, 103-1

there is no deforestation in the places of origin and ensuring traceability and are implementing specific measures to achieve those targets such as mapping deforestation risks and investigating plants determined to pose high risks. In 2020, we completed the confirmation of traceability back to large plantations, and our object by 2030 is to complete traceability to small oil palm farms.

We believe that expanding sustainable production of raw materials and establishing procurement systems that do not involve deforestation or human rights violations will contribute to the formation of a sustainable society that permanently maintains the benefits of biodiversity for all stakeholders.

## **Development and use of raw materials with minimal impact on biodiversity**

We are developing and using raw materials that have minimal impact on biodiversity.

Palm oil is used in many of our products, and it is predicted that future demand will increase steadily as a result of population increases on a global scale, making deforestation and shortages of raw materials issues of concern. We continue to develop technologies that use natural, non-edible oil sources as alternatives to palm oil. We are developing Bio IOS, which is made from an oil raw material that in the past posed a challenge in use as a surfactant, as well as microalgae, which can produce oil and fat raw materials with high efficiency.

## **Mainstreaming biodiversity**

Promoting the procurement and consumption of sustainable palm oil through Japan Sustainable Palm Oil Network to actively use certified materials and collaborate with other companies and various other measures such

as encouraging employees to participate in business site green space conservation activities and outside biodiversity preservation activities contribute to mainstreaming biodiversity.

## **Risks related to realization of What Kao Aims to Be by 2030**

Future global scale population growth and economic development may increase demand for palm oil, paper and pulp, which are our main necessary raw materials, even further. At the same time, procurement of sustainable raw materials that take into consideration biodiversity, human rights violations and other issues may give rise to additional costs. However, if we do not give consideration to sustainability in procurement, the inability to procure raw materials over the long term may call our business survival into question.

Furthermore, unless we undertake sustainable procurement of raw materials that addresses serious local issues including deforestation and human rights violations, there is a risk that our corporate reputation will be severely harmed and we will lose society's trust and have difficulty continuing to do business.

## **Opportunities related to realization of What Kao Aims to Be by 2030**

We established the Basic Policies on Conservation of Biodiversity in 2011 and have been developing new technologies that can contribute to sustainable procurement of raw materials and the conservation of biodiversity.

The Guidelines for Sustainable Procurement of Raw Materials, which were revised in 2014 sets targets for confirming zero deforestation in places of origin for palm

oil, paper and pulp, and we are increasing the possibility of business continuity by taking specific measures to achieve sustainable procurement of raw materials in the future.

Bio IOS, a new surfactant that we developed, is a completely new technology that can solve various problems such as shortages of raw materials, which are concerns in conjunction with the global scale population increase, and applications are expected to expand.

## **Contributions to the SDGs**



## Policies

In the Basic Policies on Conservation of Biodiversity formulated by Kao in 2011, there are 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. These policies have been reviewed annually.

The year 2021 marks the ten year milestone since the formulation of these policies, and is the year that international agreements will be formed for post-2020 global biodiversity framework. Based on the details of these agreements, we plan to once again revise the direction of the measures that we can contribute to.



- ➔ Basic Policies on Conservation of Biodiversity  
[www.kao.com/content/dam/sites/kao/www-kao-com/global/en/sustainability/pdf/biodiversity-basic-policy.pdf](http://www.kao.com/content/dam/sites/kao/www-kao-com/global/en/sustainability/pdf/biodiversity-basic-policy.pdf)
- ➔ Action Policies on Conservation of Biodiversity  
[www.kao.com/content/dam/sites/kao/www-kao-com/global/en/sustainability/pdf/biodiversity-action-policy.pdf](http://www.kao.com/content/dam/sites/kao/www-kao-com/global/en/sustainability/pdf/biodiversity-action-policy.pdf)
- ➔ Introductions of Biodiversity Conservation Activities  
[www.kao.com/content/dam/sites/kao/www-kao-com/global/en/sustainability/pdf/eco\\_activities\\_03\\_04\\_02\\_001.pdf](http://www.kao.com/content/dam/sites/kao/www-kao-com/global/en/sustainability/pdf/eco_activities_03_04_02_001.pdf)

## Education and promotion

After formulating the Basic Policies on Conservation of Biodiversity, we took other measures that we believe provide basic knowledge about biodiversity to employees by such means as e-learning courses for all employees of the Kao Group in Japan and annual environmental training for new employees.

Additionally, in the section dealing with ESG topics posted via intranet, we provide tips to study and consider how our lifestyles relate to biodiversity as the themes for SDG Target 14 and 15 so that our employees will put this into action.

For employees outside of Japan, we are conducting information sharing and awareness-raising activities through such venues as the annual Global RC Meeting.

## Collaboration and engagement with stakeholders

### Promote sustainable raw materials procurement

We take into consideration the conservation of biodiversity and support zero deforestation in our procurement of raw materials including palm oil, palm kernel oil, paper and pulp. We continue to procure palm oil and palm kernel oil, all of which can be traced back to their production area, and to only purchase pulp for which its wood material can be traced back to its production area.

We seek to create a sustainable supply chain for palm oil and improve and sustain the productivity of small oil palm farms in Indonesia. We launched the Smallholder Inclusion for Better Livelihood & Empowerment program, which seeks to obtain certification for sustainable palm oil.



→ Making thoughtful choices for society > Responsibly sourced raw materials

[www.kao.com/content/dam/sites/kao/www-kao-com/global/en/sustainability/pdf/klp-pr-2021-e-all.pdf#page=79](http://www.kao.com/content/dam/sites/kao/www-kao-com/global/en/sustainability/pdf/klp-pr-2021-e-all.pdf#page=79)

→ 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-20191002-001/](http://www.kao.com/global/en/sustainability/topics/sustainability-20191002-001/)

### Ecosystem and biodiversity conservation activities in individual countries and regions

We have business sites around the world. Basic policies on biodiversity conservation are formulated by the head office, but the status of and approaches to biodiversity vary in different countries and regions. We believe that creating opportunities for the active exchange of opinions with various relevant stakeholders in each country and region including governmental agencies, NGOs, NPOs, and experts can facilitate the effective implementation of biodiversity conservation activities, and we make recommendations to the responsible personnel in each country and region.

### Awareness-raising

We undertake green space conservation activities at each business site in consideration of biodiversity and arrange events in which employees can participate. We also encourage employees to volunteer for outside biodiversity conservation programs. We aspire to deepen understanding of biodiversity among all employees through their active participation in these activities.

At the Eco-Lab Museum in our Wakayama Office where the global environment and Kao's eco technologies are on display, we conduct community-based awareness-raising activities for elementary students who will build the future. At the combined greenhouse facilities, the hot and humid climate of southern countries where palm trees grow is recreated and approximately 60 species of plants can be seen. In 2020, we started a remote service for elementary schools.

## Framework

The loss of biodiversity is one of the major social problems surrounding our company. Among the 19 actions established in the Kirei Lifestyle Plan, measures such as responsibly sourced raw materials, decarbonization, zero waste (plastic reduction etc.), air & water pollution prevention and responsible chemicals management are closely related to biodiversity. These measures are being promoted by the ESG Committee and ESG Promotion Meeting.

We define conservation of biodiversity as one element of environmental conservation, which is a part of the Responsible Care (RC) activities. We establish policies, targets and plans relating to biodiversity and manage them along with the progress of measures under the RC promotion framework. Appropriate information sharing on the progress of measures is conducted at the annual RC Promotion Committee meeting, Japan RC Meeting and Global RC Meeting (responsible executive officers participate in each of these meetings; these were cancelled in 2020 due to the spread of COVID-19).



→ ESG promotion structure

[www.kao.com/content/dam/sites/kao/www-kao-com/global/en/sustainability/pdf/klp-pr-2021-e-all.pdf#page=18](http://www.kao.com/content/dam/sites/kao/www-kao-com/global/en/sustainability/pdf/klp-pr-2021-e-all.pdf#page=18)

## Mid- to long-term targets and performance

### Mid- to long-term targets 2025–2030

In relation to biodiversity, we set performance targets on zero deforestation and ensuring traceability for palm oil, paper and pulp, our main raw materials.

We are implementing measures to achieve 100% of certified paper products and pulp for consumer products by 2025 and to confirm traceability to small oil palm farms by 2030. In addition, we will determine Kao's future policies concerning biodiversity based on international agreements on post-2020 global biodiversity framework scheduled for 2021.

### Anticipated benefits from achieving mid- to long-term targets

#### **Business impacts**

Considerable costs are involved in procuring sustainable raw materials, but we consider these activities an indispensable investment to make our business sustainable and a part of our social responsibility.

As the trend toward ethical consumption is gaining traction in the European and American markets mainly driven by Millennials and Generation Z, products using sustainable raw materials with consideration for biodiversity are growing in demand. Our presence on the rapidly expanding ethical consumption market is enhanced through the incorporation of a biodiversity approach in the products we offer from the procurement of raw materials to the product's design, usage and disposal.

We expect the results of these activities not only to boost our reputation substantially, but also to be of financial and non-financial benefit.

#### **Social impacts**

These various processes relating to sustainable raw material procurement will restore and recover forest environments at raw material procurement sites and improve the respect for the human rights of local communities.

Forests stabilize global temperatures and climate, and play the role of breakwater systems to prevent disasters since they retain water. Various resources and bounties essential for our everyday lives, such as food, medicine, clean water and air, come from forest ecosystems, and are estimated to have an economic value worth thousands of trillions of yen.

Companies developing and selling products that take into consideration biodiversity from the procurement of raw materials to after the product is used and consumers choosing such products will bring about a society that understands the biodiversity within most peoples' daily lives and can contribute directly and indirectly to biodiversity conservation. If we could use resources at a sustainable level considering the productivity of bio organisms, we can keep using nature's bounty and sustain a comfortable lifestyle.

## Targets for 2021

Annual targets relating to biodiversity are set and managed each year within the RC targets managed through PDCA on a one-year activity unit basis. The 2021 targets are as follows.

### 1. Promote sustainable raw materials procurement



→ Making thoughtful choices for society > Responsibly sourced raw materials

[www.kao.com/content/dam/sites/kao/www-kao-com/global/en/sustainability/pdf/klp-pr-2021-e-all.pdf#page=79](http://www.kao.com/content/dam/sites/kao/www-kao-com/global/en/sustainability/pdf/klp-pr-2021-e-all.pdf#page=79)

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

Based on the results of the biodiversity surveys of all Kao Group production sites conducted in 2018 and 2019, each site plans feasible biodiversity conservation activities and implements them.

### 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. From 2021 onwards, our objectives are to promote this activity globally and print less pages per person than the previous year.

### 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 2021 target green purchasing rate in Japan at 100%.

## Performance in 2020

### Performance

#### 1. Promote sustainable raw materials procurement



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[www.kao.com/content/dam/sites/kao/www-kao-com/global/en/sustainability/pdf/klp-pr-2021-e-all.pdf#page=79](http://www.kao.com/content/dam/sites/kao/www-kao-com/global/en/sustainability/pdf/klp-pr-2021-e-all.pdf#page=79)

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

While the activities were unavoidably limited due to the spread of COVID-19, we promoted all activities possible within these constraints.

#### 3. Reduce use of copy paper

The number of sheets printed per person has been reduced by 31.4% compared to 2017, and the target (a reduction of 10% compared to 2017) was substantially exceeded.

#### 4. Green procurement

Our green procurement rate in Japan was 91.6%.

### Reviews of performance

There are several cases in which our business and social activities with consideration for local biodiversity were forced to be suspended due to the spread of COVID-19 in 2020. However, in some examples, these activities could be implemented while ensuring everyone's safety thanks to the enthusiasm of the responsible personnel, and this gave an opportunity to once again raise awareness of biodiversity within the company.

The significant results in reducing the use of copy paper in a short amount of time was made possible thanks to the cooperation of users. We plan to expand these activities globally in and after 2021 as well.

The promotion of green procurement has not achieved 100% of its target yet. We believe that it is required to improve the purchasers' awareness of the environment and to review the structures to purchase goods compliant with the Act on Promoting Green Procurement.



→ Making thoughtful choices for society > Responsibly sourced raw materials

[www.kao.com/content/dam/sites/kao/www-kao-com/global/en/sustainability/pdf/klp-pr-2021-e-all.pdf#page=79](http://www.kao.com/content/dam/sites/kao/www-kao-com/global/en/sustainability/pdf/klp-pr-2021-e-all.pdf#page=79)

## Our initiatives

### Understanding relationships between business and biodiversity

The ecological footprint assessment completed in 2013 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.



→ Ecological Footprint of Corporate Activities  
[www.jstage.jst.go.jp/article/ilcaj/2011/0/2011\\_0\\_164/\\_pdf](http://www.jstage.jst.go.jp/article/ilcaj/2011/0/2011_0_164/_pdf) (Japanese)

We use LIME2 (the second version of the Japanese version of the life-cycle impact assessment method based on endpoint modeling), which enables quantification of comprehensive environmental impact, to comprehensively assess the impacts of our products on various aspects of the environment. We conduct environmental impact assessments for 35 major product categories and gain an understanding of the balance of environmental aspects to benefit product development. Going forward, we will make an evaluation with LIME3 (an environmental impact assessment method to attain global scale LCA).

### Reducing the impact of business on biodiversity

To reduce the various impacts on biodiversity of our business activities, we are continually implementing the following measures. These measures are critical for Kao's ESG Strategy, and they are listed in detail in the Kirei Lifestyle Plan Progress Report 2021.

- Reduce the use of raw materials and switch to raw materials that can be sustainably procured and have lower environmental impact



→ Making thoughtful choices for society > Responsibly sourced raw materials  
[www.kao.com/content/dam/sites/kao/www-kao-com/global/en/sustainability/pdf/klp-pr-2021-e-all.pdf#page=79](http://www.kao.com/content/dam/sites/kao/www-kao-com/global/en/sustainability/pdf/klp-pr-2021-e-all.pdf#page=79)

- Reducing CO<sub>2</sub> emissions associated with business activities



→ Making the world healthier & cleaner > Decarbonization  
[www.kao.com/content/dam/sites/kao/www-kao-com/global/en/sustainability/pdf/klp-pr-2021-e-all.pdf#page=88](http://www.kao.com/content/dam/sites/kao/www-kao-com/global/en/sustainability/pdf/klp-pr-2021-e-all.pdf#page=88)

- Reduce the use of and impact on water resources



→ Making the world healthier & cleaner > Water conservation  
[www.kao.com/content/dam/sites/kao/www-kao-com/global/en/sustainability/pdf/klp-pr-2021-e-all.pdf#page=122](http://www.kao.com/content/dam/sites/kao/www-kao-com/global/en/sustainability/pdf/klp-pr-2021-e-all.pdf#page=122)

- Promote responsible chemicals management  
Through appropriate chemicals management throughout the entire life cycle of chemicals and based on risk assessments with a scientific basis, we continue to create products to minimize the burden of chemicals on the environment and ecosystem.



→ Walking the right path > Responsible chemicals management  
[www.kao.com/content/dam/sites/kao/www-kao-com/global/en/sustainability/pdf/klp-pr-2021-e-all.pdf#page=219](http://www.kao.com/content/dam/sites/kao/www-kao-com/global/en/sustainability/pdf/klp-pr-2021-e-all.pdf#page=219)

### Technology development for valued use of the benefits of biodiversity

For many years, we have produced high-grade industrial alcohols using oil and fat raw materials with carbon numbers of 12 to 14 that can be collected from the fruit of oil palm trees and other sources for use in a variety of



household products. Fats and oils with carbon numbers of 12 to 14 only account for 5% of the world's production of fats and oils. The remaining 95% are oils and fats with carbon numbers of 16 to 18 (Oil World Annual 2016). Fats and oils with carbon numbers of 16 to 18 contain solid parts unsuitable to use for human consumption, and as such the usage of these solid parts has been limited until now. Accordingly, we are generating Bio IOS, a high-quality surfactant, by applying materials science and synthesis technologies for surfactants. Bio IOS has already been put into practical use in *Attack ZERO*, a concentrated liquid laundry detergent, since 2019.

In addition, we are conducting research to use oils and fats produced by algae as an alternative to palm oil, which has low environmental impact and will not result in competition by raw materials with food applications.

We believe that the ability to use materials that previously had been of limited use as new ingredients in surfactant and the expansion of possibilities to use oils that do not compete with food applications will contribute to the sustainable use of biodiversity.

Additionally, for over 30 years, we have conducted R&D on proteins, such as enzymes, and have continued to develop technologies to efficiently produce proteins using microbes such as bacteria. One of these technologies is protein production technology using *Bacillus subtilis*. This technology contributes to obtaining VHH antibodies that neutralize novel coronavirus, through joint research with Kitasato University and Epsilon Molecular Engineering, as announced in May 2020.

By leveraging the strength of our protein production technology with *Bacillus subtilis*, we will continue to contribute widely to solving social problems such as communicable disease measures.



→ Making thoughtful choices for society >  
Transformative innovation  
[www.kao.com/content/dam/sites/kao/www-kao-com/global/en/sustainability/pdf/klp-pr-2021-e-all.pdf#page=73](http://www.kao.com/content/dam/sites/kao/www-kao-com/global/en/sustainability/pdf/klp-pr-2021-e-all.pdf#page=73)

## Compliance with international agreements

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

In addition, we were one of the first in Japan to announce support for zero deforestation in the procurement targets set in the Guidelines for Sustainable Procurement of Raw Materials in 2014. We also signed the New York Declaration on Forests announced at the United Nations Climate Summit held in New York in September of that year.

Details of our activities contributing to the Aichi Biodiversity Targets are reported below. Going forward, we will contribute to activities to achieve the post-2020 global biodiversity framework for international agreements anticipated in 2021.



→ Introductions of Biodiversity Conservation Activities  
[www.kao.com/content/dam/sites/kao/www-kao-com/global/en/sustainability/pdf/eco\\_activities\\_03\\_04\\_02\\_001.pdf](http://www.kao.com/content/dam/sites/kao/www-kao-com/global/en/sustainability/pdf/eco_activities_03_04_02_001.pdf)

## Business activities with consideration for the local ecosystem

### Implementing measures based on global biodiversity evaluation criteria

Biodiversity indicators were introduced in 2017 to determine the extent to which local biodiversity-conscious activities are being carried out at each location where we conduct business around the world, and in 2018 and 2019 we completed biodiversity evaluations at all production sites including those sites that we recently acquired. By utilizing the indicators, we can clarify issues from a biodiversity perspective and improve their score by promoting these activities, which will make confirming their progress simpler.

The primary objective of introducing these criteria is to contribute to conservation of the biodiversity of the local ecosystems of which individual sites enjoy the benefits by determining current conditions and actively undertaking biodiversity conservation at individual sites or in nearby green spaces with a clear understanding of targets.

Due to the spread of COVID-19 infections, there were issues restricting these activities such that several valuable projects were cancelled. However, even under these conditions, our employees are gaining first-hand experience that increasingly heightened their awareness of biodiversity. We believe that our thinking is communicated to many involved persons including local residents in an expanding circle of activity, thereby contributing to the mainstreaming of biodiversity.



# Biodiversity 304-1 ,304-2, 304-3

## Odawara Office Third party certificate (ABINC certification)

In 2020, the Odawara Office acquired ABINC certification from the Association for Business Innovation in Harmony with Nature and Community (ABINC). This marks the third time we acquired this certification as it was acquired for the Kashima Plant in 2015 and the Kawasaki Plant in 2018.

Odawara Office began operations as a Kanebo Cosmetics plant in 1969 and was consolidated and reorganized in 2014 as a worksite that integrates R&D and production for Kao Group Cosmetics. The Odawara Office is located 2.2km northeast of Odawara Castle with Sakawa River flowing from Mt. Fuji and the Tanzawa Mountains to its east providing superb water resources, in an area of great natural beauty that has many wild birds flying around.

Onsite there is approximately 9,000m<sup>2</sup> of green space and over 90% of these plants are native species. From FY2018, we launched new conservation activities with a perspective that's attentive to biodiversity within the region. Employees grew native species that will bloom and bear fruit, and placed birdhouses so that wild birds make nests in the shrine and rows of cherry blossoms on the worksite. In addition, they created a structure piling up tree branches and stones as a hideaway for animals (Eco Stacks) and placed it in the green space near the cargo entrance. The onsite forest is periodically thinned. The forest thinnings are recycled as Beetle Apartments (an area inhabited by rhinoceros beetles that gather and compost pruned tree branches, weeds and fallen leaves), tables and chairs. Any leftover wood is turned into fertilizer to reuse in the premises.

Additionally, Odawara is registered in the stewardship system to preserve the Japanese Killifish (Odawara Killifish) living in the Sakawa River drainage basin, and in May 2018, five Killifish taken from Odawara City were bred and successfully artificially hatched larvae so that their numbers grew to 25. In 2020, we established a pond for

Killifish to be able to naturally lay their eggs in the spacious balcony built on the premises of this site. In addition, with the support of the Kawasaki Plant, we work on activities to protect the *Aristolochia* and *Byasa alcinous*, and periodically monitor the plants, birds and insects.



Green space located in the middle of Odawara Office (Arc Square Garden)



(Top left) Eco Stacks bench  
(Top right) Killifish pond and conservation area for *Aristolochia*  
(Bottom left) Collection box of fallen leaves (Beetle Apartments)  
(Bottom right) Table made with felled tree stumps



(Top left) Eurasian tree sparrow making a nest in a birdhouse placed on the grounds  
(Top right) Common Kingfisher targeting aquatic organisms in the water channel  
(Bottom left) Minnows living in the water channel  
(Bottom right) *Semisulcospira libertina*, freshwater snails living in the water channel, which are prey for fireflies

# Biodiversity 304-1, 304-2, 304-3

## **KSA** Conservation activities after biodiversity assessment

Kao Specialties Americas LLC (KSA) is a company in High Point, North Carolina in the south of the United States. A mixed forests of various coniferous and broad-leaf trees spreads throughout the site, and a variety of living creatures including wild birds such as the wood thrush, which wildlife NGOs have designated as an threatened species, inhabit the area.

In 2019, KSA conducted a biodiversity assessment, verifying regional characteristics on and in the vicinity of the company site, vegetation, invasive species, the current status and future possibilities of habitats for living organisms and monitoring organisms, and prepared a detailed report.

KSA is promoting biodiversity conservation activities based on the results of this assessment with employees' active participation. In 2020, despite the impacts of COVID-19, the following activities were implemented.

- Setting a compost yard for fallen leaves and dead branches on the site
- Employees planting saplings of native species under the guidance of experts (*Itea virginica* and *Beautyberry*)
- Birdhouses for small birds created and placed by employees



Compost yard established on the site



Group of employees placing birdhouses



Created birdhouses

## **PKI** Conservation of superior varieties of coconut palms and mangrove planting activities

Since its founding in 1979, Pilipinas Kao (PKI) has been a worksite that produces higher alcohols, refined glycerin and high-quality tertiary amine in Mindanao, the Philippines. We planted superior varieties of coconut palms which are used as the main ingredients in our products in the conservation area built on the worksite of PKI and have grown them with tender love.

At PKI, we launched the Mangrove Rehabilitation Project in 2010 to bring back mangrove trees in the coastal areas around the plant, and with the collaboration of the Department of Environment and Natural Resources and local NGOs, we planted mangroves at the event for World Wetlands Day hosted in the Philippines. Since then, PKI has continued to plant trees every year, but the low survival rate of mangroves that didn't take root was concerning. The primary cause for this is that plastics floating in the water and marine plants like algae obstruct its growth by getting caught on the saplings and breaking down the leaves and seeds. To counter this, after reviewing our periodic cleaning activities along the coast and cultivating methods for saplings (growing the saplings in an individual nursery and moving them to their destination once the roots have sufficiently sprouted), we altered the time frame for planting to avoid the summer season to the rainy season when the waves were stronger and algae is the most fertile. By applying this expertise cultivated thus far, the survival rates for saplings in 2020 reached 92%, which is a dramatic improvement compared to the first attempts. We still continue to research propagule of different mangrove species by conducting tests to investigate their rates of growth.





Coconut palm planted in the onsite conservation area



Steadily cultivated mangrove saplings

## KCSA Formulation of Biodiversity Policies and promotion of conservation activities

At Kao Corporation S.A. (Spain) (KCSA), we formulated Biodiversity Policies which include a commitment on actions to maintain and promote biodiversity in 2018 to recognize the importance of biodiversity in developing the future of the planet and so as to fulfil the Sustainability and Risk Prevention Policy.

In 2020, while there were constraints on the activities planned due to COVID-19, KCSA carried out a series of activities based on four commitments incorporated in the Biodiversity Policies ([1] the promotion of conservation programs, [2] the provision of appropriate resources to those organizing activities, [3] raising the awareness of employees and relevant parties and [4] designs with greenspace and maintenance plans that give consideration to ecology networks). These activities provide information to all employees and strive to actively raise their awareness. We will introduce activities implemented at the Barbera site within these activities.

- Tree-planting activities

New employees hired at the Barbera site planted aromatic crops such as thyme (*Thymus vulgaris*) and rosemary.

- Creation of birdhouses and insect hotels, and guided nature walks

With the cooperation of two specialists well-versed on animals and plants, we operated site tours participated by our employees with the objective of deepening their knowledge about the site's biodiversity. During the tour, they placed bird houses for three species of wild birds (Eurasian scops owls, House sparrows and Great tits/ Eurasian blue tits), and created and placed insect hotels. In the future, we expect to enhance biodiversity within this site and increase the wildlife living there.



Specialist giving an explanation to participating employees



Mounting birdhouses



Creating insect hotels

## Collaboration with other organizations

We have been a founding member of the Japan Business Initiative for Biodiversity (JBIB), a group of companies that give serious consideration to biodiversity conservation initiatives and carry out specific measures, since 2008 and work with other participating companies. The organization has been divided into multiple working groups according to topic, holds monthly meetings on how to contribute to conserving biodiversity with companies in different industries and develops various events such as JBIB Ikimono Days (which was changed to be an online event in 2020 due to the spread of COVID-19).

We also collaborate with stakeholders including the Organization for Landscape and Urban Green Infrastructure (Kao Creating Forest for Everyone program), the Organization for Industrial, Spiritual and Cultural Advancement (OISCA) (FURUSATO Environment Conservation Project in Northern Thailand), and Earthwatch Japan (East Japan Green Reconstruction Monitoring Project) to undertake initiatives that will lead to the conservation of biodiversity.

The Kao Earthwatch Teachers' Fellowship, a corporate citizenship program aiming to contribute to biodiversity conservation in collaboration with Earthwatch Japan ended its activities in FY2019. However, we set up a special website to summarize and disseminate the outcomes of these activities in the last 17 years and to widely utilize the expertise gained and tools created by participants.



→ Special website, Kao Earthwatch Teachers' Fellowship, 17 year trajectory  
[www.earthwatch.jp/kaofellow/](http://www.earthwatch.jp/kaofellow/) (Japanese)



→ Corporate citizenship activities / FURUSATO Environment Conservation Project in Northern Thailand

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