CSR Policy 2: Environment

We will learn the importance of reducing the environmental impact and actively engage in environmental protection and improvement activities.

Basic approach

We have established the Environmental Philosophy to clarify our stance towards environmental protection and have formulated the Environmental Safety Activity Policy in order to embody the philosophy.

Environmental Philosophy

T. HASEGAWA CO., LTD. recognizes that the important common issue facing all of humanity is to pass on this irreplaceable planet to future generations. As a comprehensive flavor and fragrance manufacturer, we give due consideration to environmental protection in all of our business activities.

Environmental Safety Activity Policy

In addition to environmental protection, we also view security and disaster prevention, occupational health and safety, and chemical safety as important corporate themes. As such, we incorporate these themes into our Environmental Safety Activity Policy and engage in relevant activities.

Environmental Protection

1. **Promotion of energy conservation**
2. **Promotion of resource conservation and effective use of waste products**
3. **Odor countermeasures/Environmental pollutant emissions reduction**
4. **Strengthening of the environmental management system (EMS)**
5. **Promotion of green purchasing**

Security and Disaster Prevention

1. **Promotion of hazardous material safety measures**
2. **Promotion of disaster-prevention and safety measures**

Occupational Health and Safety

1. **Promotion of labor safety measures**
2. **Promotion of occupational health activities**
3. **Improvement of labor environment**

Chemical Safety

1. **Development of a chemical substance management system**
2. **Promotion of chemical safety measures**

Relation with stakeholders

Information disclosure to customers

We disclose information via platforms, such as the CSR Procurement Self-Assessment Tool (Global Compact Network Japan), Sedex, EcoVadis, and CDP. We also respond to supplier surveys conducted by customers.

Environmental education for employees

We provide multifaceted environmental education as part of our efforts to improve the environmental awareness among employees.

- Training and information provision via the intracompany website.
  We post environment-related pages on our intracompany website and provide a Sustainability Report and other environmental information.
  Since FY2022, we have been providing e-learning classes on the basic knowledge of SDGs to all employees in Japan, including employees assigned to overseas offices (excluding employees who are absent for a long period of time). We conducted a comprehension test after the session and achieved a response rate of 100%. We disclose the response results on the intracompany website in an effort to improve employees' knowledge on sustainability.

- Internal environmental seminars
  The Environmental Safety Committee, Education Committee, etc., of each factory plan and hold seminars and study meetings on environmental issues. In response to requests from sites, we held some study meetings led by members of the CSR Division.

- External environmental seminars
  Employees involved in environmental safety work participate in professional seminars, lecture meetings, exhibitions, etc., in an effort to upgrade their environmental knowledge.

- New employee education
  Each factory provides education and training to new employees. We also conduct environment and safety-related training during internal seminars for employees, including group training provided when entering the Company.

- **Environmental education under the environment management system (ISO 14001)**
  The Fukaya Facility, the Itakura Facility, and the R&D Center conduct education and training in a planned manner as part of our ISO 14001 environmental management system (EMS). We have also installed an ISO 14001 message board in each workplace and put environment-related information, including the Environmental Policy and environmental promotion posters, in an effort to promote environmental protection.

Information disclosure to stakeholders

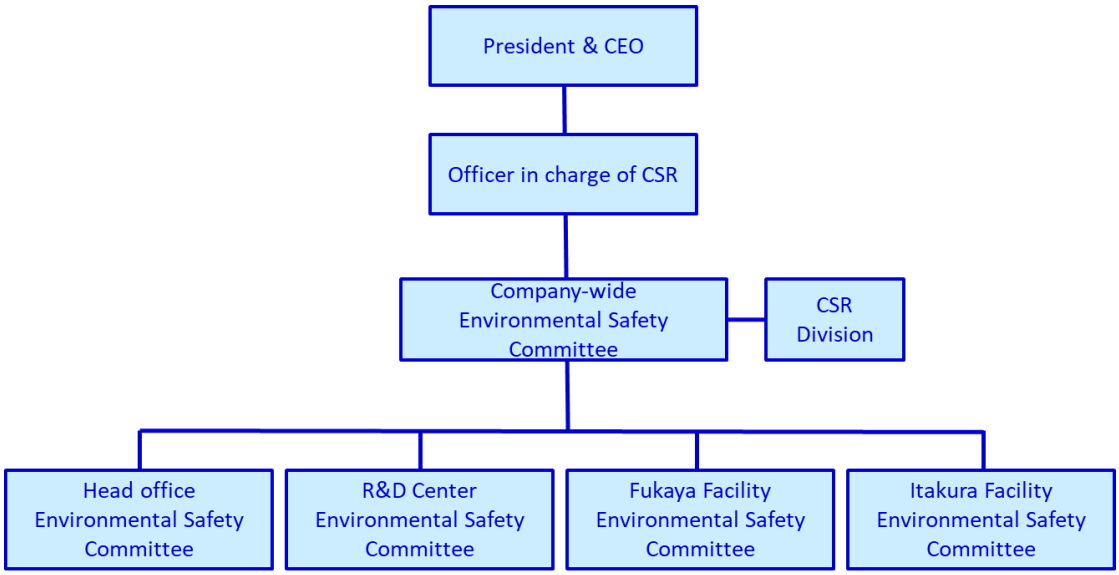
We post sustainability information (including this Report) on the Company website.

SDGs that we are targeting

Promotion system and governance

Promotion system

We have built and promote an environmental safety management system in accordance with the Environmental Safety Management Rules.
In addition, we have obtained the ISO 14001 certification, an international standard for environmental management systems, at our Fukaya Facility, Itakura Facility, and R&D Center. Our EMS is jointly managed by the Production Division and the R&D Division.



(1) Company-wide Environmental Safety Committee

1) The Committee is chaired by an officer in charge of CSR appointed by the President & CEO and it deliberates and decides on company-wide policies and activity plans related to environmental protection and safety measures.
2) The Committee receives reports on environmental safety activity plans, activity results, etc., from each site, and coordinates activities from a company-wide perspective.
3) The Committee selects auditors of environmental safety audits (environmental protection, security and disaster prevention, occupational health and safety), and conducts annual audits at each site.

(2) Environmental Safety Committee of each site

1) We have established an Environmental Safety Committee at our head office, R&D Center, Fukaya Facility, and the Itakura Facility. It is chaired by the responsible officer, factory director, etc., and held at these sites, excluding the head office, every month.
2) Each Committee sets out specific activity policies and targets in accordance with the company-wide activity policy and promotes environment and safety-related activities.

(3) CSR Division

1) The Division develops and promotes basic policies on CSR and the SDGs.
2) This Division is responsible for the overall management of environmental safety activities at T. Hasegawa.
3) The Division plans and manages company-wide Environmental Safety Committee meetings and environmental safety audits as a secretariat.
4) The Division discloses Sustainability Reports and other related information on our website, etc.

(4) ISO 14001

In 2001, the Fukaya Facility and the Itakura Facility obtained an ISO 14001 environmental management system (EMS) certification from the Japanese Standards Association and have since conducted relevant activities. Note that the current certifying body is DNV Business Assurance Japan Co., Ltd. The Production Division has a particularly large environmental impact compared to other divisions of the Company. However, the two facilities cooperate to work on continuous improvement by implementing the PDCA cycle based on the ISO 14001 system. In June 2012, we added the R&D Center to the scope of certification in an attempt to strengthen the efforts of reducing environmental impact from the R&D development phase. As for overseas sites, the Suzhou Facility has been certified since 2015.

ISO 14001 Environmental Policy

As a comprehensive flavor and fragrance manufacturer involved in the production, research, and development of food flavors, cosmetic fragrances, synthetic flavors and fragrances, food additives, foods and cosmetic materials, the Fukaya Production Center and the R&D Center of T. HASEGAWA CO., LTD. recognize the importance of achieving harmony with the environment and aim to become companies that are trusted by society. To achieve this, we will conduct activities related to the environment in accordance with the following policies.

(1) Promote resource and energy conservation and work to protect the global environment.
(2) Promote the reduction and recycling of waste products.
(3) Promote coexistence with local communities by strengthening environmental management at applicable sites and surrounding areas and working to prevent pollution.
(4) Comply with air, water, and other laws and agreements related to the environment.
(5) Conduct internal audits, etc. to make continuous improvements to the EMS.
(6) Provide environmental education to all employees to improve their environmental awareness.

Governance

Our Environmental Safety Management Rules state that each factory shall conduct an environmental safety audit annually and report the results to the Strategy Committee. Both the Production Division and the R&D Division are ISO 14001 certified and are subject to confirmation as to the effectiveness of the environment management system.

Environmental safety audits by the company-wide Environmental Safety Committee

Since 1997, the Environmental Safety Committee has been conducting audits related to environmental protection and safety measures.

From 2008 onwards, we reorganized our auditing framework into three categories: Environmental Protection Audits, Security and Disaster Prevention Audits, and Occupational Safety and Health Audits to conduct more detailed checks. We select expert auditors for each audit category. They check for compliance with environmental laws, the status of activities, and the management status at relevant facilities, and issue an improvement recommendations report for matters that need to be improved. In response, the site to be audited creates an improvement plan for the issues that were pointed out and implements the improvements after reporting to the company-wide Environmental Safety Committee. In FY2022, an audit was conducted at each site in July. The results are to be deliberated by the Environmental Safety Committee, reported to the Strategy Committee, and then referred and reported to the Board of Directors as necessary.

ISO 14001 and internal audit (environmental)

We have obtained an ISO 14001 certification for the Fukaya Facility, the Itakura Facility, and the R&D Center. An internal audit is conducted by the Internal Audit Team as prescribed in the Environmental Manual.

In the Production Division, which has a particularly large environmental impact compared to other divisions of the Company, the two factories cooperate to manage the operations (implementing PDCA) based on the ISO 14001 system.

If any remark is made, a corrective action is taken quickly and then passed to other divisions in an attempt to make continuous improvements.

Note that the Suzhou Facility in China obtained the ISO 14001 certification in 2015 and has been engaging in environmental improvement activities since then.

Risks, opportunities, and strategies

Risks

- Administrative actions or lawsuits due to insufficient compliance with laws and regulations
- Hindering the environmental protection of the local community
- Reputational damage
- Transactions stopped by customers, etc.
- Raw material crop failure due to climate change
- Disruption of the supply chain due to a disaster, etc.

Opportunities

- Response to social needs brought by climate change

Strategies

- We will thoroughly comply with laws and respond to risks.
- We will solve environmental issues in accordance with the CSR Policy and incorporate them in our growth strategy.

Related measures

- The Strategy Committee considers and decides on targets from a long-term perspective, and the company-wide Environmental Safety Committee manages the progress of policies and promotes awareness among the entire Group.
- We ensure that measures against global warming are taken (reduction of energy consumption and CO_2 emissions through the activities of the Environmental Safety Committee, effective use of resources and waste products through resource conservation, and composting of waste products).
- We join platforms, including the CSR Procurement Self-Assessment Tool (Global Compact Network Japan), Sedex, EcoVadis, and CDP and maintain transparency through information disclosure.
- We expand transactions with customers by disclosing information and ensuring traceability.
- We accelerate innovation and develop, propose, and sell new products to achieve the SDGs.
- We contribute to resource conservation for container materials through thinner and lighter weight PET bottles by using Carbonation Enhancer®, a natural light degradation inhibitor, etc.

Main FY2022 initiatives

(1) TCFD initiatives and CDP evaluation

The T. Hasegawa Group declared its support for the TCFD recommendations in 2022 and disclosed our analysis of climate change risks.
As part of this process, we are conducting a scenario analysis in light of the requirements of the TCFD. For details, refer to the “Climate change risk analysis of the T. Hasegawa Group.”
Home > Sustainability > Disclosures Based on TCFD Recommendations > Climate change risk analysis of the T. Hasegawa Group
https://www.t-hasegawa.co.jp/files/hasegawa_group_tcfd.pdf

Note that, under the CDP climate change category in FY2022, we achieved the B ranking in the management level, indicating that actions are being taken for environmental risks and that environmental risks and their impacts are tracked, mitigated, and eliminated.

(2) Environmental accounting

To ensure efficient and effective environmental protection activities, we referenced the Environmental Accounting Guidelines published by the Ministry of the Environment to conduct environmental accounting. (Reference: ESG Databook 2023)

(3) Initiatives for mitigating environmental impact

・Energy use

We take energy conservation as an important issue and are proactively working on it. In addition to conducting company-wide energy conservation activities, we promote energy conservation by updating all boilers used in the Production Division to models with less CO_2 emissions and better combustion efficiency and by installing special high-voltage power receiving and transforming equipment and energy monitoring systems. The Fukaya Facility and the Itakura Facility, which are Type 1 Designated Energy Management Factories as defined by the Energy Conservation Act, have established energy usage optimization standards and are working on energy conservation based on them.
In FY2022, we improved manufacturing processes, streamlined the formula, reviewed the use of steam to reduce loss, increased the efficiency of boiler operations, and so on. As a result, the energy consumption was reduced by 1,372 GJ compared to the previous year and the energy consumption rate per unit was improved by 4.2%, achieving the target year-on-year reduction of 1.6%. (Reference: ESG Databook 2023)

・CO_2 emissions

In FY2022, we reduced CO_2 emissions in scopes 1 and 2 by 1.6% compared to the previous year. For our target of 46% reduction by FY2030 from the FY2013 level, we have managed to reduce the emissions by 22%.
We started green power procurement as part of the reduction plan. At the head office building, 100% of the electricity used has been procured from green power sources since December 2021, while at the R&D Center, 10% of the electricity used has been procured from green power sources since March 2022. In the Production Division, which uses more electricity, the Fukaya Facility started to procure 10% of the electricity used from green power sources in January 2023 and the Itakura Facility is scheduled to start procuring 10% of the electricity used from green power sources in June 2023.
We received a third-party validation of CO_2 emissions (scopes 1 to 3) for the Company alone for FY2021 and for the consolidation of Group companies in Japan for FY2022. (Reference: ESG Databook 2023)

・Water use

We use water in our manufacturing processes, as well as for cooling and cleaning. So far, we have been striving to reduce water usage by reducing the use of cooling water through the implementation of better manufacturing methods and by reducing the use of water through the optimization of cleaning methods and additions of cooling water recycling equipment. In FY2022, we reduced the amount of water usage by 1.3% compared to the previous year.

In addition, in light of rising global interest and the importance of water resources in addition to climate change, the company-wide Environmental Safety Committee (chaired by the officer in charge of CSR) developed a strategy for water risks and built a mechanism to supervise initiatives for water risks.

The Environmental Safety Committee sets numerical targets using data on the amount of water used in the past. The Production Division, in which water usage is particularly high, reports the reasons for the increased or decreased usage and the reduction measures implemented every month. (Reference: ESG Databook 2023)

At the moment, we understand that the water risk in the production area of the Company is not high. However, since we recognize that water is a precious resource globally and it is important to strengthen its management, we will continue to manage water risks properly.

・Wastewater treatment

Since we installed a wastewater treatment system at the Fukaya Facility in 1969, we have been improving our wastewater treatment by increasing wastewater treatment facilities using various water purification technologies, such as the activated sludge method, dissolved air floatation method, anaerobic method, coagulation and sedimentation method, and the membrane filtration method.

Wastewater treatment equipment (Itakura Facility)

Wastewater from each facility is treated through a tertiary treatment process. Wastewater from the R&D center is treated through to the secondary treatment process before being discharged to the sewer system. We comply with wastewater standards in terms of regulation values, etc., as prescribed in the Water Pollution Control Law, prefectural ordinances, and agreements with communities. (Reference: ESG Databook 2023)

・Effective use of waste products

We manufacture a diverse range of flavor and fragrance products, which generate various waste. We work to effectively use such waste and proactively promote resource recycling of waste cans, paper, waste glass, oil, and so on. We also work to limit the generation of landfill waste. The effective utilization rate of waste products was 96.4% in FY2022. (Reference: ESG Databook 2023)

We ask a business operator that manufactures recycled cans to treat cans that do not have much odor and another business operator with recycling technology to treat some waste liquid.

As seen in the enforcement of the Plastic Resource Circulation Act in Japan in 2022 and the intergovernmental negotiations to formulate a legally binding international document (treaty) concerning plastic pollution, we recognize the reduction and waste treatment of plastics as issues that require a more serious response. We sort plastics into recyclable conditions.

When choosing waste service companies, we visit the treatment site to check if they treat waste properly and we also conduct periodic audits. In addition, we also have a responsibility as waste generators, so we audit the Fukaya Facility, Itakura Facility, R&D Center, and head office regarding the conditions of waste treatment as part of our environmental safety audit once a year. If there is any remark, correction is taken immediately. During an environmental safety audit in FY2022, it was confirmed that waste management was properly conducted.

As an example of effective use of waste products, the large amount of residue generated after extracting natural products (botanical residue) goes through fermentation composting at Koumi Compose Co., Ltd. in Koumi-machi, Minamisaku-gun, Nagano (45% investment by the Company) and then used by highland vegetable farmers.


Laying compost (Koumi-machi, Nagano)


Vegetable field (Koumi-machi, Nagano)

・Odor measures

As a company that manufactures flavors and fragrances, we pay extra attention to odor measures (malodor prevention). We work to prevent the emission of odors by adopting many deodorizing equipment using various deodorizing technologies.
We also conduct regular environmental patrol activities in our premises and the surrounding areas as part of our odor measures.


Deodorizing equipment (Itakura Facility)

・Dust collection measures

Dust collectors are installed in some manufacturing divisions as part of our efforts to improve the work environment during manufacturing.

・Biodiversity protection

The production of flavors and fragrances takes up resources, such as energy, natural and synthetic raw materials, and water, which may have some effect on the ecosystem in the entire value chain.
One of the themes in which we can contribute with flavors and fragrances is to develop alternatives for widely consumed food resources, and to reduce the amount of such resources used. For example, food items that are expected to be in greater demand (such as meat, milk, sugar, lard, palm, coffee, tea, cacao, and nuts) can be delivered to consumers without making them give up on their preferences, if the use of such items in processed food is reduced and they are supplemented with flavors and fragrances instead. The use of flavors and fragrances not only protects food resources, but also makes it possible to stably supply food at lower prices than natural food.
The second theme is reduction of food loss. Using formulation technology to create powdered flavors and fragrances not only reduces the container and transport costs for carrying flavors and fragrances, but also improves food storage. Furthermore, by using Carbonation Enhancer® and light degradation inhibitors, we contribute to making lighter PET bottles and extending the food expiration dates.
While promoting activities that take into consideration the nature of our business and the characteristics of the community, we will work on deepening our understanding of biodiversity through internal education to systematically understand the relationship between our business activities and biodiversity.

In FY2022, we started to collect information in an attempt to launch various activities so that we can share the information related to biodiversity from the next fiscal year onwards.

(4) Environmental targets and results

Environmental objective	FY2022 target	FY2022 result	Mid- to long-term target
1. Strengthening of the environmental management system (EMS)			
1) Continuous improvement of the EMS	Continue to manage and improve environmental protection activities Continue to manage and improve ISO 14001 (Certification acquiring division)	All divisions of T. Hasegawa conducted the activities. The Manufacturing and R&D Division continued to manage and improve ISO 14001.	Continue to conduct the activities Continue to conduct the activities
2) Implementation of environmental audit	Conduct environmental safety audit Conduct ISO 14001 review and internal environment audit	Environmental safety audit was conducted. The ISO 14001 certification acquiring divisions conducted the audit.	Continue to conduct the activities Continue to conduct the activities
3) Promotion of environmental safety education	Plan and provide various education courses Plan and provide ISO 14001 education and training	Education via the intracompany website and other topics were provided. The ISO 14001 certification acquiring division conducted the education and training.	Continue to conduct the activities Continue to conduct the activities
4) Improvement of environmental management	Publish the Sustainability Report Conduct environmental accounting	Published the Sustainability Report. Conducted environmental accounting.	Continue the improvement Enhance the activities
2. Promotion of energy conservation			
1) Reduction of energy use	Energy consumption rate per unit: Reduce by 1.6% compared to the previous year	Energy consumption rate per unit was reduced by 1,372 GJ. (0.5% reduction compared to the previous year) (Energy consumption per production unit: 4.2% reduction → Achieved the target)	Continue to conduct the activities
2) Reduction of CO_2 emissions (scopes 1 and 2)	CO_2 emissions: 25% reduction compared to FY2013 (total amount)	CO_2 emissions were reduced by 4,128 t. (22% reduction compared to FY2013)	Reduce by 46% by FY2030 compared to FY2013
3. Resource conservation and effective use of waste products			
1) Promotion of resource conservation	Continue to improve the amount of water used Continue to improve the amount of office paper used	The amount of water used was reduced by 5,522 m^3. (1.3% reduction compared to the previous year) The amount of office paper used was reduced by 871 kg. (5.7% reduction compared to the previous year)	Continue the improvement Continue the improvement
2) Promotion of effective use of waste products	Continue to improve the effective utilization rate of waste products	Effective utilization rate of 96.4% (down 1.2 points from the previous year)	Continue to conduct the activities
3) Reduction of landfill amount	Zero landfill amount	Landfill amount of 0 ton Landfill glass waste products were effectively used.	Zero landfill amount
4. Reduction of emissions to the environment			
1) Prevention of air pollution and water quality contamination	Manage based on voluntary regulation values (facilities)	The values were properly managed within the voluntary regulation values. Modification of a wastewater treatment facility	Continue the improvement
2) Odor measures	Increase and properly manage deodorizing equipment Conduct odor patrol (facilities and R&D centers); zero complaints regarding odor	Properly managed equipment and zero complaints regarding odor	Continue the improvement
3) Chemical substance management	Report substance emissions in accordance with the PRTR (law concerning PRTR and voluntarily managed substances)	Reported substance emissions in accordance with the PRTR.	Continue to conduct the activities
5. Green purchasing			
1) Promotion of green purchasing	Promote of green purchasing	Managed green purchasing according to the Green Purchasing Principles/Guidelines.	Continue to conduct the activities

Plan for the future

- We will promote renewable energy procurement and work to reduce CO_2 emissions in scopes 1 and 2 in a medium- to long-term perspective.
- We will continue third-party validation of CO_2 emissions to maintain the accuracy of our calculation methods and the reliability of our data.
- We will set a water use reduction target and work to reduce the amount of water used while checking the progress of measures.
- We will ascertain risks, opportunities, and the impact of biodiversity and will consider sharing information in line with the Taskforce on Nature-related Financial Disclosures (TNFD).