TCFD and TNFD Disclosure of T.Hasegawa Group



Business Strategy for Sustainable Growth

We view climate change and biodiversity not only as a risk but also as a business opportunity. Harnessing the power of flavor and fragrance creation, we will contribute to people's prosperity and health and achieve sustainable growth. Climate change and the deterioration of natural capital pose a variety of risks, such as the reduced yield and deteriorated quality of natural raw materials and stricter regulations. On the other hand, the increased demand for alternative food flavors and environmentally friendly products such as those that use less plastic due to increased environmental and health awareness, as well as the improved reputation of sustainability-related initiatives, will also create many business opportunities. In line with these future environmental changes, the T.Hasegawa Group aims to contribute to creating an enriched society and achieve sustainable growth by using its flavor and fragrance technology to help solve the world's problems.

In March 2022, the T.Hasegawa Group announced its support for the TCFD (Task Force on Climate-related Financial Disclosures) recommendations. The Group is also working to disclose information in accordance with the disclosure recommendations of the TCFD and the TNFD (Taskforce on Nature-related Financial Disclosures).



The Group has added the content of the nature-related risk analysis based on the TNFD to the climate change risk analysis based on the TCFD previously conducted, and from this fiscal year, the Group is conducting integrated information disclosure. The following item describes the general requirements based on the TNFD's disclosure recommendations.

Application of materiality

In assessing nature-related risks and opportunities, we have adopted a single materiality approach, consistent with the Group-wide risk management and TCFD disclosures, to assess the impact of natural capital on its business.

Scope of disclosure

The subject of analysis in this disclosure is the flavor and fragrance business (production and sale of flavors and fragrances), which is our main business. To produce flavors and fragrances we use a wide variety of raw materials, including those derived from petroleum. However, for the upstream value chain analysis, we selected key plant-derived raw materials such as vanilla, coffee, and lemon, which have a relatively high dependence and impact on natural capital, to be included in the analysis.



Location of nature-related issues

For the raw material production sites, sourcing sites, and Group sites included in the scope of the analysis, we identified the location information and assessed whether the sites fell within the priority areas identified by the TNFD. For those sites where location information could not be confirmed at this time, approximate locations and ranges are estimated based on publicly available information. In addition, due to the difficulty of obtaining information on distribution and downstream of the value chain, we have not identified the location at this stage. See the Strategy section for specific analysis results.

Integration with other sustainability-related disclosures

Risks and opportunities related to climate change and biodiversity are organized in an integrated manner in this disclosure.

Time horizons considered

Short-term (2024), medium-term (2030), and long-term (2050) time frames are used to assess risks and opportunities.

Engagement with indigenous people, local communities, and affected stakeholders

The Group conducts stakeholder engagement through supplier evaluations and other means in accordance with the T.Hasegawa Group Procurement Policy (For more information, refer to our Sustainability Report). For some raw materials, we also visit overseas production sites to communicate directly with producers and suppliers.

The Group has added the content of the nature-related risk analysis based on the TNFD to the climate change risk analysis that is derived from the TCFD previously conducted, and from this fiscal year, the Group is conducting integrated information disclosure. In our analysis, we followed the LEAP approach presented by the TNFD, as the climate change component is included in the scope of the TNFD disclosure recommendations. In the following sections, we will explain how to proceed with an analysis based on the Locate, Evaluate, Assess approach in LEAP.

Locate interfaces with nature

We identified and estimated the locations of raw-material production sites, sourcing sites, and our Group's sites, as well as confirmed the locations of sites related to our Group's business. We also assessed the identified sites based on the TNFD's LEAP approach to identify priority areas for consideration.

- Northeastern Madagascar, where vanilla is grown, is located in an area of high biodiversity importance.
- Some of the lemons used by the Group are grown in Spain and Italy, both of which are water-stressed areas, etc.

Evaluate dependencies and impacts

Using ENCORE, a tool for identifying and assessing the dependencies and impacts of business activities on nature, we identified the nature and magnitude of the dependencies and impacts associated with each process in the value chain, and summarized them in a heat map.

[Heat map of dependence/impact] * VH: Very High; H: High; M: Medium; L: Low; VL: Very Low

			Dependencies											Impacts																		
	Process	Livestock-related labor	Provision of textiles and other materials	Provision of genetic resources	Use of groundwater	Use of surface water	Pollination	Maintaining soil quality	Ventilation by plants	Maintaining the water cycle	Maintaining water quality	Cleanup of pollutants	Dilution by water or air	Pollutant filtration	Reduction of noise and	Regulating the flow of rivers. etc.	Stabilization of the climate	Disease control	Protection from wind and flood damage	Protection from soil erosion	Pest control	Water use	Use of terrestrial ecosvstems	Use of freshwater ecosystems	Use of marine ecosystems	Other	Greenhouse gas emissions	Water pollution	Soil pollution	Air pollution	Solid waste	Noise, vibration, light pollution
	Growing raw materials	VL	М	М	VH	н	VH	VH	L	VH	н	М	М	М		Н	VH	VH	VH	VH	VH	VH	VH	VH		L		Н	Н			
Upstream	Processing raw materials				VH	٧Н		VL	VL	М	М	L	L	L	L		L		М	L		н	н				н	Н	н	Н	н	
	Distribution																Н		М	М					М		н	L	L	Н		Н
Direct operations	Production of flavors and fragrances				н	н			VL	L	L	VL		VL	L		L		М	L		н	н				н	Н	н	Н	н	
Downstream	Production of products using flavors and fragrances				∨н	∨н		VL		М	м	L	L	L					М	L		н					н	М	М	М	н	
	Sales of products											VL								L		н						Н	Н	М	М	

Strategies

The Group has added the content of the nature-related risk analysis based on the TNFD to the climate change risk analysis that is derived from the TCFD previously conducted, and from this fiscal year, the Group is conducting integrated information disclosure. In our analysis, we followed the LEAP approach presented by the TNFD, as the climate change component is included in the scope of the TNFD disclosure recommendations. In the following sections, we will explain how to proceed with an analysis based on the Locate, Evaluate, Assess approach in LEAP.

Assess risks and opportunities

Based on the results of the Locate and Evaluate analyses, we identified risks and opportunities and assessed their impact on our Group. Physical risks were assessed under a scenario in which climate change progresses (scenario of 4°C global warming) and under the assumption that natural capital is lost and ecosystem services are reduced. Transition risks were assessed based on a scenario in which decarbonization is realized (1.5°C and less than 2°C global warming scenarios), as well as on the assumption of a situation in which society is transformed towards the protection of natural capital. Opportunities are described taking into account the categories of opportunities identified by the TNFD and the physical opportunities identified in the climate change risk analysis (opportunities arising from the scenario of 4°C global warming).

In response to these risks and opportunities, the Group aims to help realize an enriched society and achieve sustainable growth through thorough risk management, while seizing business opportunities through innovation based on the power of flavor and fragrance creation.

Item	Category	Name	Description	Impact	Concept of impact	Term
	Acute Chronic	Increased cultivation costs due to deterioration of ecosystem services	Deterioration of ecosystem services such as pollination services and maintenance of soil quality, as well as severe wind and flood damage due to climate change, and rapid increases in pest and disease damage, may worsen the yield and quality of the raw-material crops.	Medium	For some of the raw materials we purchase, there are concerns about reduced yields, deteriorating quality, and rising prices.	Short Medium Long
	Acute	Interruption of production at suppliers due to drought	There is a possibility that drought may interrupt production activities at factories and other facilities of suppliers.	Small	Based on the proportion of raw materials related to water-scarce areas, we expect the impact to be limited.	Medium Long
Physical risks	Acute	Disruption of the distribution network due to wind and flood damage	Wind and flood damage may disrupt the distribution network.	Small	There are concerns about difficulties in procurement, quality deterioration, and price increases of some of the raw materials we purchase.	Medium Long
	Acute	Interruption of production at our Group's sites due to wind and flood damage	Natural disasters such as floods may affect the Group's sites, resulting in damage to facilities and equipment, interruption of business operations, and other effects.	Large	There are concerns about damage to facilities and business interruption due to flooding in some locations at high risk of flooding.	Medium Long
	Chronic	Decrease in species available for flavor and fragrance creation	Extinctions and population declines of organisms may continue, reducing the number of species available for use in flavor and fragrance creation.	Medium	There is concern that sales and profits will decrease due to a decline in R&D capabilities.	Long
Transition risks	Policy / Regulatory	Increased cultivation costs due to environmental laws and regulations	In the areas where crops used as raw materials are grown, stricter laws and regulations regarding the expansion of farmland and the use of fertilizers and pesticides may increase the cost of response at suppliers.	Small	We expect price increases due to environmental laws and regulations to be limited for raw-material crops.	Medium Long
	Policy / Regulatory	Increased production costs due to environmental laws and regulations (Suppliers)	At our suppliers' factories and other facilities, stricter laws and regulations on greenhouse gas emissions, water withdrawal, pollutant emissions, plastic disposal, etc. may increase the cost of response.	Small	If the response costs are passed on to prices, there is concern that raw-material prices will rise.	Medium Long
	Policy / Regulatory	Increased distribution costs due to environmental laws and regulations	In the distribution industry, stricter laws and regulations regarding greenhouse gas emissions, air pollution, noise and light pollution, etc., may increase the cost of response.	Small	Due to the low proportion of distribution costs in procurement costs, we expect the impact to be limited.	Medium Long

[Major risks and opportunities]

The Group has added the content of the nature-related risk analysis based on the TNFD to the climate change risk analysis that is derived from the TCFD previously conducted, and from this fiscal year, the Group is conducting integrated information disclosure. In our analysis, we followed the LEAP approach presented by the TNFD, as the climate change component is included in the scope of the TNFD disclosure recommendations. In the following sections, we will explain how to proceed with an analysis based on the Locate, Evaluate, Assess approach in LEAP.

[Major risks and opportunities] (continued)

Item	Category	Name	Description	Impact	Concept of impact	Term
	Policy / Regulatory	Increased production costs due to environmental laws and regulations (The Group)	Stricter laws and regulations on greenhouse gas emissions, water withdrawal, and plastic disposal at the Group's production sites could increase the financial burden of carbon pricing and equipment installation.	Medium	Due partly to carbon pricing and equipment installation, we expect some financial burden to be incurred.	Medium Long
	Market	Increased demand for some raw materials	There is a risk that the demand for some raw materials as biomass fuels and biomass plastics may increase and prices may rise.	Small	Based on the proportion of the relevant raw materials among the total procurement items, we expect the impact to be limited.	Medium Long
Transition risks	Technology Market Reputational	Decrease in sales due to changing customer preferences	The Group's delay in responding to the growing customer preference for products with low environmental impact and for companies with an advanced environmental response could hinder its competitiveness.	Medium	There is concern about a decline in sales due to delays in environmental response and R&D.	Medium Long
	Reputational	Reputational loss due to negative supplier impact	The Group's reputation could suffer if suppliers are found to be damaging natural capital, which could lead to inconsistencies with the procurement policy.		There is concern that a decline in the ESG score could lead to a drop in stock prices and litigation.	Medium Long
	Reputational	Decrease in ESG score	The Group's reputation could be damaged by delays in addressing and disclosing information on climate change, natural capital, and biodiversity.	Small	There is concern that a decline in the ESG score could lead to a drop in stock prices and litigation.	Medium Long
	Market Products and services Reputational capital	Increase in sales due to changing customer preferences	The Group's progressive response to the growing customer preference for products with low environmental impact and companies with advanced environmental response can improve the Group's competitiveness.	Medium	Sales are expected to increase due to the development of environmentally friendly products and an improved ESG score.	Medium Long
Opportunities	Products and services	Increased Demand for Beverages, Frozen Desserts, etc. due to Rising Temperatures	Rising temperatures are expected to increase sales of soft drinks, ice cream, and other cold desserts, and increase demand for added flavors.	Small	For sports drinks, we expect sales to rise by several percent as of 2030 due to rising temperatures. Sales of flavors and fragrances are also expected to increase.	Medium Long
	Market Reputational capital	Improvement of ESG score	The Group's reputation could be enhanced by recognition of its progressive response to climate change, natural capital and biodiversity, and information disclosure.	Medium	The ESG score is expected to improve, leading to an increase in stock price.	Medium Long
	Cash flow / Diversification of financing methods		Green financing may become more active.	Medium	It is expected that the cost of upgrading to facilities with lower environmental impact and the cost of developing environmentally friendly products will be financed through green bonds and green loans.	Medium Long

Climate Change and Natural Capital Initiatives

Procurement initiatives

Establishment of the T.Hasegawa Group Procurement Policy and the T.Hasegawa Group Supplier Guidelines

We have established the T.Hasegawa Group Procurement Policy and the T.Hasegawa Group Supplier Guidelines to inform our suppliers of the Group's policies on legal compliance, ethics, human rights, and the environment, and to promote responsible procurement throughout the supply chain.

Implementation of supplier assessment

To promote responsible procurement, we assess suppliers in the areas of human rights, labor, environment, fair corporate activities, quality and safety, information security, supply chain, local communities, corporate governance, etc.

Risk management for raw-material procurement

The Group procures more than 3,000 items from approximately 400 suppliers around the world. In procurement, we manage risk by diversifying purchasing routes and carefully managing raw material inventories. In addition, information on procurement-related risks is collected by the Procurement Division and managed and verified by the Risk Management Committee, which is chaired by the President & CEO and includes members of the Board of Directors, to ensure appropriate responses.

Procurement of certified raw materials

We purchase some of our ingredients from farms that have obtained the Japan Good Agricultural Practices (JGAP) certification, ASIAGAP certification, and Rainforest Alliance certification.

Procurement of perilla oil

To procure perilla oil, which is one of Japan's most distinctive flavor and fragrance raw materials, we collaborate with a producers' association to support stable production in terms of quality and quantity as well as for business continuation.

Product development initiatives

Technology to reduce the use of natural flavors and fragrances

By developing aroma analysis methods and improving the accuracy of analysis of trace aroma components, we are promoting the elucidation of the composition of aroma components in natural products, which is useful for the development of technologies to substitute natural flavors and fragrances and reduce the amounts of natural flavors and fragrances used.

In response to the shortage of vanilla beans, we are developing substances that can produce a vanilla taste even with a reduced amount of vanilla beans, by applying compounded flavor and heat-reaction technology.

We also offer a series of flavors that can replace savory natural raw materials and alternative compounded flavor for citrus essential oils.

We are switching to an upcycled process that uses processing by-products as a substitute for ingredients contained in rare plants protected by the Washington Convention.

Flavors that help to reduce the use of oil and fat ingredients

Koku Jyuwa[®], which is generated by using the power of enzymes in natural vegetable fats and oils, helps to reduce the use of oil and fat ingredients where there are supply concerns by imparting a rich, full-bodied effect to foods.

Flavors that improve the taste of plant-based foods

We have developed Plant React[®], an ingredient that adds the favor and taste of animal products to plant-based food. It is effective in reducing environmental impact, helping to reproduce the characteristic flavors of animal products.

Flavors and fragrances that help to reduce plastic usage

We have developed Carbonation Enhancer[®], which supplements the sensation of carbonation, helping to reduce the thickness of PET bottles and saving resources.

Production process improvement that takes green chemistry into account

We use the IFRA Green Chemistry Compass, which is published by the IFRA, to evaluate the conformity of our chemical processes to green chemistry based on the 12 articles related to green chemistry. We are working to improve production processes that reduce environmental impact, such as reducing the amount of solvent used, replacing toxic substances, and developing environmentally conscious ingredients.

Improvement of the R&D environment

We are implementing various measures to improve our R&D environment to develop better products, including investment in R&D, use of marketing data and AI, active exchange of views with universities and research institutions, and analysis of customer requests and latent needs.

Initiatives on greenhouse gas emissions

Reduction of greenhouse gas emissions and energy consumption

We have set a greenhouse gas emissions reduction target for FY2030 and are working to achieve it. We also procure green power at our head office building, R&D Center, Fukaya Facility, and Itakura Facility.

To reduce energy consumption, all boilers in the Production Division have been replaced with new models and fuels with lower greenhouse gas emissions and higher combustion efficiency, and special high-voltage power receiving and transforming equipment and energy monitoring systems have been installed. In addition, the Fukaya Facility and the Itakura Facility have established energy usage optimization standards.

Climate Change and Natural Capital Initiatives

The following summarizes the Group's climate change and natural capital initiatives by category. Refer to our Sustainability Report for details on our initiatives and progress toward our goals.

Water use initiatives

Reduction of water usage

We have been promoting reduction of water usage by scaling down 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. The company-wide 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.

Wastewater initiatives

Wastewater treatment initiatives

Wastewater from production facilities is treated through a tertiary treatment process. Wastewater from the R&D Center, meanwhile, 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 and the like as prescribed in the Water Pollution Control Law, prefectural ordinances, and agreements with communities.

Initiatives on waste products

Reduction of plastic waste

Although it is difficult to reduce plastic container use due to the characteristics of our Group's products, we separate plastics used within the Group that can be recycled and then endeavor to use them effectively.

Composting of post-extraction residues

At Koumi Compose Co., Ltd. (45% investment by the Company), botanical residue from our Company, which is generated after extracting natural ingredients, goes through fermentation composting for use by highland vegetable farmers. In addition, from the viewpoint of stable procurement of domestic raw materials for flavors and fragrances and realization of a circular economy, the Group is conducting experimental cultivation of lemongrass using this compost in Koumi-machi.

Other waste separation and recycling

We work to promote waste separation and resource recycling of waste cans, paper, waste glass, oil, and so on. We also strive to limit the generation of landfill waste.

We outsource the processing of cans with minimal odor transfer to a company that manufactures recycled cans and some of the waste liquids to a company that specializes in reuse technology.

Waste treatment audits

When choosing waste service companies that treat the waste we generate, we visit their treatment site and also conduct periodic audits. As part of our environmental safety audit once a year, we check the Fukaya Facility, the Itakura Facility, the R&D Center, and our head office to examine the waste treatment conditions. Immediate corrective action is taken for items that need it.

Initiatives on chemical substance management

Compliance with laws and regulations regarding chemical substances

From the viewpoint that the components of flavors and fragrances we handle are chemical substances, we comply with related laws as follows (Refer to the Sustainability Report for details on each item.).

1. Applications for registering new chemical compounds in accordance with Japanese laws

2. Publication of Safety Data Sheets (SDSs) supporting the Globally Harmonized System of Classification and Labelling of Chemicals (GHS)

3. Information management and response to chemical regulation trends in each country and law amendments in Japan

4. Overseas subsidiaries implementing measures to comply with local laws and regulations

Product risk assessment (risk assessment of chemical substances)

At our factories, we conduct risk assessments of chemical substances based on the SDSs of raw materials and intermediate products, consider risk reduction measures, and reflect the results in work procedures. In addition, employees regularly receive education on the danger, harm and appropriate handling of chemical substances and chemical regulations in and outside Japan.

The R&D Center conducts risk assessments of all chemical substances used in the factories according to the Industrial Safety and Health Act, prepares a measure sheet according to the risk level, and puts it on the intracompany website.

At our overseas subsidiaries, we also implement management measures according to the actual situation there.

Management of substances applicable to the PRTR

We manage chemical substance emissions by specifying flavors and fragrances applicable to the Pollutant Release and Transfer Register (PRTR) and substances to be voluntarily controlled.



Vegetable field (Koumi-machi, Nagano)

Climate Change and Natural Capital Initiatives

The following summarizes the Group's climate change and natural capital initiatives by category. Refer to our Sustainability Report for details on our initiatives and progress toward our goals.

Initiatives on wind and flood damage response

Developing business continuity plans and conducting trainings

We have established and are operating business continuity rules and their subordinate rules, the business continuity guidelines, in order to continue the Company's business in the event of a contingency such as disasters or crisis. We conduct annual firefighting training and regular safety confirmation training based on a large-scale disaster scenario to increase their effectiveness.

Initiatives on information disclosure and external collaboration

Information disclosure and response to the ESG score

Through platforms such as CDP, EcoVadis, and Sedex, we disclose the Group's ESG response status and promote recognition of issues and improvement activities. We also respond to supplier surveys requested from customers as needed.

We analyze and disclose risks and opportunities related to climate change and natural capital in accordance with the disclosure recommendations of the TCFD and the TNFD (as presented in this document).

We publish our Sustainability Report (including ESG Data Book and GRI Standard Index) on our website every year.

Endorsement and participation in organizations and initiatives

We have signed the IFRA-IOFI Sustainability Charter and UNGC (United Nations Global Compact), participated in the RSPO (Roundtable on Sustainable Palm Oil) and JaSPON (Japan Sustainable Palm Oil Network), and have endorsed and participated in various sustainability initiatives.

Biodiversity conservation initiatives

Establishment of a biotope at the R&D Center

A biotope that comprises plantings of mainly native species, a pond, and a stream has been created on the premises of the R&D Center, and is used as a habitat for birds, amphibians, aquatic insects, and other animals in the area.

Initiatives on policy formulation and education Environmental policy formulation, certification, education, etc.

We have established the Environmental Philosophy to clarify our stance towards environmental protection, and have formulated the Environmental Safety Activity Policy and the Environmental Policy based on ISO 14001 in order to embody the philosophy. The Fukaya Facility, the Itakura Facility, and the R&D Center obtained ISO 14001 environmental management system certification.

We actively provide environmental education to employees by delivering training and information through the intracompany website, holding seminars and study sessions on environmental issues, and conducting education and training when they join the company.

To ensure efficient and effective environmental protection activities, we referenced the Environmental Accounting Guidelines published by the Ministry of the Environment for conducting environmental accounting.



A biotope on the R&D Center premises

The status of the disclosure metrics presented by the TNFD is shown below. Unless otherwise noted, the scope of coverage is on a domestic consolidated basis and the period covered is fiscal year 2023 (October 2022 to September 2023). The numbers in the table correspond to the TNFD metric numbers. For items under consideration, we will discuss the response policy and collect information for future updates. In addition, we will explain the Group's climate change and natural capital goals.

[Core global disclosure metrics: dependencies and impacts]

#		Indicator	Status				
_	Greenhouse gas emission	ons	Refer to the Sustainability Report				
C1.0	Total spatial footprint	Total surface area controlled/managed by the organization	Total surface area: 0.24864886 km ² • Head office: 0.00059653 km ² • Fukaya Facility: 0.0689828 km ² • Itakura Facility: 0.17131648 km ² *1 • R&D Center: 0.00772504 km ² • Kajiyacho Bldg.: 0.00002801 km ² *2				
		Total disturbed area	N/A *3				
		Total rehabilitated/restored area					
		Extent of the change in use of the land/freshwater/ocean ecosystem	N/A *3				
C1.1	Extent of change in use of land/freshwater/ocean	Extent of land/freshwater/ocean ecosystem conserved or restored	Establishment of green areas in accordance with laws and regulations at facilities and the R&D Center: Fukaya Facility: 0.012 km² Itakura Facility: 0.043 km² R&D Center: 0.0080 km² (Biotope created in the R&D Center) 				
		Extent of land/freshwater/ocean ecosystem that is sustainably managed	N/A				
C2.0	Pollutants released to so	pil (tons) by type	No contaminants released to soil				

* 1: The Itakura Facility site area includes T.HASEGAWA Business Service Co., Ltd.

* 2: Of the total site area of the Kajiyacho Building (0.0060474 km²), the portion owned by the Company is stated.

* 3: With 2020 as the base year, since there are no changes (e.g., purchase or development of new sites) after that year, it is stated as N/A.

The status of the disclosure metrics presented by the TNFD is shown below. Unless otherwise noted, the scope of coverage is on a domestic consolidated basis and the period covered is fiscal year 2023 (October 2022 to September 2023). The numbers in the table correspond to the TNFD metric numbers. For items under consideration, we will discuss the response policy and collect information for future updates. In addition, we will explain the Group's climate change and natural capital goals.

[Core global disclosure metrics: dependencies and impacts] (continued)

#		Indicator	Status				
		Amount of wastewater					
		BOD	Refer to the Sustainability Report				
C2.1	discharged	SS					
		Temperature of wastewater	Wastewater is discharged at factories and laboratories at temperatures in accordance with applicable municipal ordinances.				
		Weight of hazardous and non-hazardous waste generated by type					
C2.2	Waste generation and disposal	Weight of hazardous and non-hazardous waste disposed of	Refer to the Sustainability Report				
		Weight of hazardous and non-hazardous waste diverted from landfill					
C2.3	Plastic pollution	Total weight of plastics used or sold	 Sold plastic (plastic containers of products): 442 tons Recycled plastic: 175.4 tons *4 Incinerated plastic: 0.5 tons *4 				
		Proportion of reusable or recyclable plastic containers	Reuse and recycling of plastic containers are under consideration *5				
		Sulphur oxides	Defer to the Sustainshility Depart				
		Nitrogen oxides	- Refer to the Sustainability Report				
C2.4	Non-GHG air pollutants	Ammonia	N/A				
		Particulate matter	Under consideration				
		Volatile organic compounds	Under consideration				

* 4: Plastic other than product containers.

* 5: Due to the characteristics of flavors and fragrances, plastic containers require high barrier properties; therefore the odor remains in the container after filling, even after use. The current process of making the containers odorless increases GHG emissions, so we will continue to examine the reuse and recycling of plastic containers.

Indicators and Targets

The status of the disclosure metrics presented by the TNFD is shown below. Unless otherwise noted, the scope of coverage is on a domestic consolidated basis and the period covered is fiscal year 2023 (October 2022 to September 2023). The numbers in the table correspond to the TNFD metric numbers. For items under consideration, we will discuss the response policy and collect information for future updates. In addition, we will explain the Group's climate change and natural capital goals.

[Core global disclosure metrics: dependencies and impacts] (continued)

#		Indicator	Status				
C3.0	Water withdrawal and co	onsumption from areas of water scarcity	No operations in water-scarce areas in Japan				
	Quantity of high-risk	Quantity of high-risk natural commodities					
C3.1	natural commodities sourced from land/ocean/freshwater	Quantity of high-risk natural commodities sourced under a sustainable management plan or certification program, including proportion of total high-risk natural commodities	Under consideration				
C4.0	Invasive alien species and other	Measures against unintentional introduction of invasive alien species (IAS)	Under consideration				
CE 0	State of poturo	Ecosystem condition	Under consideration				
0.5.0	State of hature	Species extinction risk	Under consideration				

[Core global disclosure metrics: risks and opportunities]

#		Status	
C7.0		Value of assets, liabilities, revenue and expenses that are assessed as vulnerable to nature-related transition risks	Under consideration
C7.1	Risks	Value of assets, liabilities, revenue and expenses that are assessed as vulnerable to nature-related physical risks	Under consideration
C7.2	-	Description and value of significant fines/penalties received/litigation action in the year due to negative nature-related impacts	0 cases
C7.3		Amount of capital expenditure, financing or investment deployed towards nature-related opportunities	Under consideration
C7.4	Opportunities	Increase and proportion of revenue from products and services producing demonstrable positive impacts on nature with a description of impacts	Under consideration

Targets

For the Group's goals related to climate change and natural capital, refer to "Indicators and Targets" (Procurement, Environment, Innovation) in the Sustainability Report.

Governance, Risk, and Impact Management

The following describes the Group's governance structure and management processes for risks and opportunities related to climate change and natural capital.

Governance

Sustainability promotion system

Climate change and nature-related risks and opportunities are managed within the Group's sustainability promotion system.

The person in charge of sustainability at the Company is the President & CEO. Under this framework, we have established a Sustainability Committee to strategically promote sustainability initiatives, including matters stated in the CSR Policy and ESG, across the entire Group. The Committee develops group-wide business strategies related to sustainability and deliberates and resolves important matters, including initiative details.

Matters deliberated by the Sustainability Committee are referred and reported to the Strategy Committee and the Board of Directors as necessary. In addition, we delegate authority to related divisions depending on the matter.

Sustainability promotion system chart



Nature and related stakeholder engagement

The following describes human rights policies and engagement activities related to the assessment and management of nature-related dependencies, impacts, risks, and opportunities required in the TNFD Recommendations.

Based on the T.Hasegawa Group Procurement Policy, the Group requires its suppliers to consider human rights and conducts stakeholder engagement through supplier assessments and other means. In addition, for some raw materials, we visit overseas production sites and communicate directly with producers and suppliers.

Risk and impact management

Risk management system

The Group has established a Risk Management Committee, chaired by the President & CEO, as a Groupwide organization to analyze and manage risks and consider countermeasures. The Risk Management Committee deliberates on risk management plans, including risk analysis and management, evaluation reports on responses to priority risks, annual risk management plans, and planning and implementation of countermeasures.

Risk Management Committee structure chart



Company-wide risk identification and reporting process

The Group conducts an annual company-wide risk survey to identify risks in accordance with the risk management rules. The risk assessment analysis results are reported to the Risk Management Committee and the Board of Directors. The Risk Management Committee selects the priority risks to be monitored according to the analysis results, and regularly checks them for progress.

Process for identifying and reporting climate change and nature-related risks

Climate change and nature-related risks and opportunities affecting the Group's operations are identified and assessed through an analysis based on the LEAP approach presented by the TNFD (refer also Strategy section).

Identified and assessed climate change and nature-related risks and opportunities are reported to the Risk Management Committee, as are other risks.

