

Welcome to your CDP Climate Change Questionnaire 2023

C0. Introduction

C0.1

(C0.1) Give a general description and introduction to your organization.

Fuji Seal Group started manufacturing and selling cap seals in 1958. Since that time, we have continuously developed our products in response to changes in customers, markets, and product containers. Fuji Seal provides shrink sleeve labels, self-adhesive labels (pressure sensitive labels), spouted pouches, and packaging machinery on a global scale. Utilizing the technology and capabilities of the Group, we provide total packaging solutions to meet our customers needs in a wide range of areas, such as food, beverages, dairy, home & personal care and pharmaceutical products.

- Shrink Sleeve Labels

Fuji Seal is a global pioneer in the development of distinctive shrink labels, a core product of its business. Utilizing the characteristics of film, which shrink when heat is applied, Fuji Seal's unique shrink sleeve labels are able to fit perfectly to containers of any shape or material. Applying attractive printing and various processing techniques to transparent plastic film, Fuji Seal shrink sleeve labels become the face of customer products. Our shrink sleeve labels contribute to product quality as well as further environmental protection efforts thanks to the addition of special functions such as light-shielding and weight-saving.

- Self-adhesive Labels (Pressure Sensitive Labels)

Self-adhesive labels are pre-glued labels that are also known as pressure sensitive labels. Fuji Seal's self-adhesive labels contribute to the promotion of customer products. Our POP (point of purchase) labels and campaign seals enhance the effectiveness of store advertising. Our self-adhesive labels also boast a high share of the battery label market. With the addition of Pago to the Group, we will offer a wider range of self-adhesive label solutions on a global scale.

- Soft Pouches (Spouted Pouches)

Soft Pouches, which are generally called spouted pouches, combine the features of a flexible pouch with the functionality of bottles. In addition to their lightweight and space-saving features, the attachment of spouts to soft pouches makes packaging more user friendly. Helping to reduce waste after use, spouted pouches are used in a wide array of areas, such as beverages, food, home & personal care and pharmaceuticals.

- Machinery

Fuji Seal listens attentively to customer needs and proposes an optimized combination of packaging machinery such as label feeders, label applicators and peripheral production line

equipment. We provide technical support and services at every location to meet global demands.

C0.2

(C0.2) State the start and end date of the year for which you are reporting data and indicate whether you will be providing emissions data for past reporting years.

Reporting year

Start date

April 1, 2022

End date

March 31, 2023

Indicate if you are providing emissions data for past reporting years

No

C0.3

(C0.3) Select the countries/areas in which you operate.

France
Germany
India
Indonesia
Italy
Japan
Mexico
Netherlands
Poland
Spain
Thailand
United Kingdom of Great Britain and Northern Ireland
United States of America
Viet Nam

C0.4

(C0.4) Select the currency used for all financial information disclosed throughout your response.

JPY

C0.5

(C0.5) Select the option that describes the reporting boundary for which climate-related impacts on your business are being reported. Note that this option should align with your chosen approach for consolidating your GHG inventory.

Financial control

C0.8

(C0.8) Does your organization have an ISIN code or another unique identifier (e.g., Ticker, CUSIP, etc.)?

Indicate whether you are able to provide a unique identifier for your organization	Provide your unique identifier
Yes, an ISIN code	JP3813800004

C1. Governance

C1.1

(C1.1) Is there board-level oversight of climate-related issues within your organization?

Yes

C1.1a

(C1.1a) Identify the position(s) (do not include any names) of the individual(s) on the board with responsibility for climate-related issues.

Position of individual or committee	Responsibilities for climate-related issues
Board Chair	<p>Fuji Seal Group has established the group sustainability committee in December, 2020 to promote and support sustainability management, including addressing climate change issues. The group sustainability committee is chaired by the FSI President, and consists of all executive officers as members, and as its subordinate body, the FSI sustainability subcommittee has also been established. Each region hosts a regional sustainability committee chaired by an executive officer in charge of the region, who is responsible for developing group policies, establishing and operating an implementation system, and executing measures.</p> <p><Board of Directors></p> <p>The Board of Directors is responsible for determining policies and regulations related to sustainability management for the entire group, setting targets and promotion plans, and determining promotion systems, as well as monitoring and supervising the activities of the group sustainability committee. The Board Chair is responsible for leading them.</p> <p>The Board of Directors also determines the greenhouse gas reduction targets set in the current medium-term management plan, as well as the development of environmentally friendly products that also contribute to greenhouse gas reduction and the reduction of waste that is not effectively utilized.</p> <p>< Group Sustainability Committee></p>

	<p>The group sustainability committee, as the center of the sustainability management in the group, is responsible for reviewing and formulating basic policies (including materiality reviews), submitting and reporting action plans and results, and other sustainability-related matters to the Board of Directors, and managing and monitoring the progress of sustainability management.</p> <p>< FSI Sustainability Subcommittee ></p> <p>The FSI sustainability subcommittee is responsible for supporting the deliberations and activities of the group sustainability committee by drafting and proposing basic policies, etc. to the group sustainability committee, by managing and monitoring the progress of KPIs for each policy and region, and by implementing CO2 reduction and various policies.</p>
--	---

C1.1b

(C1.1b) Provide further details on the board’s oversight of climate-related issues.

Frequency with which climate-related issues are a scheduled agenda item	Governance mechanisms into which climate-related issues are integrated	Please explain
Scheduled – some meetings	<ul style="list-style-type: none"> Overseeing major capital expenditures Reviewing innovation/R&D priorities Reviewing and guiding strategy Overseeing and guiding the development of a transition plan Monitoring the implementation of a transition plan Overseeing and guiding scenario analysis Overseeing the setting of corporate targets Monitoring progress towards corporate targets Overseeing value chain engagement 	<p>Considering the risks and opportunities associated with climate change, marine plastic issues, and resource depletion, the Board of Directors has deliberated and formulated the latest medium-term management plan (announced in February 2021) and determined new environmental KPIs, which include increasing the sales ratio of environmentally friendly products, reducing CO2 emissions and waste. The Board of Directors checks progress of the initiatives, provides guidance to officers in each region, and supervises each initiative and oversees major capital expenditures with respect to these goals and risk management at each meeting of the Board of Directors.</p>

	Reviewing and guiding the risk management process	
--	---	--

C1.1d

(C1.1d) Does your organization have at least one board member with competence on climate-related issues?

	Board member(s) have competence on climate-related issues	Criteria used to assess competence of board member(s) on climate-related issues
Row 1	Yes	<p>The Company transitioned to a "Company with Nominating Committee, etc." (then called "Company with Committees") in June 2004 in order to (1) strengthen the governance of the entire group management, (2) improve management transparency for shareholders and investors, (3) clarify the roles of each operating company and group management and improve the efficiency and quality of group strategies, and (4) utilize outside directors to broaden the perspective of the company's strategy and speed up the response to change. The Nominating Committee is responsible for the appropriate management of the Group. The Nominating Committee considers and decides on the selection and dismissal of directors and executive officers in light of the selection criteria, etc., with the aim of contributing to the establishment of an appropriate management structure for the Group. In order to be a company that contributes to the realization of a sustainable society by resolving ESG issues through packaging, the Nominating Committee appoints directors who are knowledgeable about and able to promote decarbonization, eco-design, diversity, and work-life balance. Specifically, our directors directly supervise and lead the development of environmentally friendly products, and host the Sustainability Committee as a chairperson, which was established in 2020 to promote and support FSG's sustainability management, and work together to promote sustainability management across the board.</p> <p>The "Sustainability Environmental Management" section in the Director Skill Chart on our website clearly states that two directors are able to serve the role.</p>

C1.2

(C1.2) Provide the highest management-level position(s) or committee(s) with responsibility for climate-related issues.

Position or committee

Chief Executive Officer (CEO)

Climate-related responsibilities of this position

- Managing annual budgets for climate mitigation activities
- Managing major capital and/or operational expenditures related to low-carbon products or services (including R&D)
- Managing climate-related acquisitions, mergers, and divestitures
- Developing a climate transition plan
- Implementing a climate transition plan
- Integrating climate-related issues into the strategy
- Conducting climate-related scenario analysis
- Setting climate-related corporate targets
- Monitoring progress against climate-related corporate targets
- Managing value chain engagement on climate-related issues
- Assessing climate-related risks and opportunities
- Managing climate-related risks and opportunities

Coverage of responsibilities

Reporting line

Reports to the board directly

Frequency of reporting to the board on climate-related issues via this reporting line

More frequently than quarterly

Please explain

'Under the direction of CEO, the following are working on climate-related issues: four Executive Officers for Regions, who are responsible for the execution of operations in each Region, as well as Executive Officers responsible for Shrink Label Business , Pressure Sensitive Label Business, Spout Pouch Business, and Machinery Business, and Executive Officer responsible for Development to manage each business and function.

Under the supervision of Board of Directors, the group sustainability committee, chaired by CEO and President of Fuji Seal International (FSI), sets environmental targets, which include increasing the sales ratio of environmentally friendly products, reducing CO2 emissions and waste, promotes action plans, monitors progress, and evaluates achievements, to relevant to the assessment of climate-related risks and opportunities. It is composed of executive officers and meets four times a year at the same time as Executive Officers meetings. In addition, FSI sustainability subcommittee has been established as a subordinate organization of the committee, and is responsible for drafting basic policies and other proposals to the committee, managing and monitoring the progress of each policy and region's KPI and other indicators, and operating CO2 reduction and various policies.

In addition, each region has a region sustainability committee chaired by an executive officer in charge of the region, who is responsible for developing group policies, building and operating an implementation system, and executing measures.

Executive Officers responsible for Regions report how they address environmental issues at Board of Directors meetings and in monthly reports). Executive Officers for Business Sectors are responsible for promoting the reduction of the environmental impact from manufacturing processes, and monitors them as part of their duties. In addition, the executive officer for business sector needs to take the lead to identify and promote new product development, etc. in point of reduction environmental impact and obtainment climate change opportunity. CEO is responsible for monitoring progress of new developments that contributes to reducing environmental impact and their budget for it, through meetings and deliberations in regular development meetings four times a year.

C1.3

(C1.3) Do you provide incentives for the management of climate-related issues, including the attainment of targets?

	Provide incentives for the management of climate-related issues	Comment
Row 1	Yes	The "performance-linked compensation" has been introduced to its executive officers. The percentage of total remuneration varies from 0% to 30%, and the calculation items include consolidated net sales and operating income ratio for a single year, financial indicators important for management strategy, and non-financial indicators such as environmental indicators and human resource development. We also provide "restricted stock compensation" as a medium- to long-term incentive to executive officers in order to share the same values with our shareholders and to sustainably enhance the corporate value of the Group. Our vision for sustainable enhancement of corporate value is "Delivering value that is friendly to people and the environment," which is also related to our efforts to address climate change-related issues.

C1.3a

(C1.3a) Provide further details on the incentives provided for the management of climate-related issues (do not include the names of individuals).

Entitled to incentive

Chief Executive Officer (CEO)

Type of incentive

Monetary reward

Incentive(s)

Bonus - % of salary
Shares

Performance indicator(s)

Increased share of revenue from low-carbon products or services in product or service portfolio

Incentive plan(s) this incentive is linked to

Both Short-Term and Long-Term Incentive Plan

Further details of incentive(s)

The Company has introduced "performance-linked compensation" for its Executive Officers. The percentage of total compensation varies within a range of 0% to 30%, and calculation items include consolidated sales and operating income ratio for a single fiscal year, financial indicators important for management strategy, and non-financial indicators such as environmental indicators and human resource development. The environmental indicators are calculated based on the percentage of achievement of single-year targets set in the medium-term management plan for the ratio of sales of environmentally friendly products (100% of sales of environmentally friendly products, 50% of sales of recyclable designed products, and 20% of sales of products made from recycled materials). We also provide "restricted stock compensation" as a medium- to long-term incentive to executive officers in order to share the same values with our shareholders and to sustainably enhance the corporate value of the Group. Our vision for sustainable enhancement of corporate value is "Delivering value that is friendly to people and the environment," which is also related to our efforts to address climate change-related issues.

Explain how this incentive contributes to the implementation of your organization's climate commitments and/or climate transition plan

Under the vision of "Delivering value that is friendly to people and the environment", this incentive, which encourages the deployment of low-carbon products such as those derived from plant-derived and recycled materials, as well as products that can reduce energy use during manufacturing, transportation, customer use, and disposal, will contribute to reducing greenhouse gas emissions throughout the supply chain.

Entitled to incentive

Executive officer

Type of incentive

Monetary reward

Incentive(s)

Bonus - % of salary
Shares

Performance indicator(s)

Increased share of revenue from low-carbon products or services in product or service portfolio

Incentive plan(s) this incentive is linked to

Both Short-Term and Long-Term Incentive Plan

Further details of incentive(s)

The Company has introduced "performance-linked compensation" for its Executive Officers. The percentage of total compensation varies within a range of 0% to 30%, and calculation items include consolidated sales and operating income ratio for a single fiscal year, financial indicators important for management strategy, and non-financial indicators such as environmental indicators and human resource development. The environmental indicators are calculated based on the percentage of achievement of single-year targets set in the medium-term management plan for the ratio of sales of environmentally friendly products (100% of sales of environmentally friendly products, 50% of sales of recyclable designed products, and 20% of sales of products made from recycled materials). We also provide "restricted stock compensation" as a medium- to long-term incentive to executive officers in order to share the same values with our shareholders and to sustainably enhance the corporate value of the Group. Our vision for sustainable enhancement of corporate value is "Delivering value that is friendly to people and the environment," which is also related to our efforts to address climate change-related issues.

Explain how this incentive contributes to the implementation of your organization’s climate commitments and/or climate transition plan

Under the vision of "Delivering value that is friendly to people and the environment", this incentive, which encourages the deployment of low-carbon products such as those derived from plant-derived and recycled materials, as well as products that can reduce energy use during manufacturing, transportation, customer use, and disposal, will contribute to reducing greenhouse gas emissions throughout the supply chain.

C2. Risks and opportunities

C2.1

(C2.1) Does your organization have a process for identifying, assessing, and responding to climate-related risks and opportunities?

Yes

C2.1a

(C2.1a) How does your organization define short-, medium- and long-term time horizons?

	From (years)	To (years)	Comment

Short-term	0	2	
Medium-term	2	5	
Long-term	5		Longer term means more than five years for us, and we do not specify an end date as we are conscious of sustainability in the future.

C2.1b

(C2.1b) How does your organization define substantive financial or strategic impact on your business?

A significant financial or strategic impact is defined as an event that results in the suspension of factory operations for seven or more consecutive days or an impact of 300 million yen or more in terms of sales. Such an event would cause the inability to provide a stable supply of our label or pouch products, both in normal times and in emergencies, to those products that are positioned as part of our Essential Business, which are essential to society. One example of this is the restriction on the supply of product labels, including those for essential businesses, after the Great East Japan Earthquake in 2011. The scope of the impact can include both direct operation and supply chains, where we would not be able to carry out our manufacturing activities in the normal course of business, from purchasing raw materials to manufacturing products and shipping them to our customers. This would result in a significant expenditure to address potential or actual risks, a significant decrease in revenues due to emerging risks, and a reduction in business over the medium to long term.

C2.2

(C2.2) Describe your process(es) for identifying, assessing and responding to climate-related risks and opportunities.

Value chain stage(s) covered

Direct operations

Risk management process

Integrated into multi-disciplinary company-wide risk management process

Frequency of assessment

More than once a year

Time horizon(s) covered

Short-term

Medium-term

Long-term

Description of process

Description of the process of climate-related risk management:

Using our proprietary "risk map" method, risk assessment is carried out regularly for climate-related risks as a main part of risk management.

- 1) Create a risk map by evaluating the degree of impact and the likelihood of occurrence for each possible risk to visualize their importance.
- 2) Estimate the impact and occurrence of each risk item onto management over the short, medium, and long terms. Then, identify the most important risk items and determine their priority as a part of risk assessment.
- 3) The updated risk map is reviewed and approved by the Board of Directors multiple times a year, and each division and region then formulates and implements countermeasures to manage their own risks based on the approved risk map.

Description of the process of managing climate-related opportunities:

- (1) At the end of every fiscal year, the impact of each opportunity and feasibility of action are reviewed in a global development meeting attended by R&D members from each region, and key opportunity items are identified based on customer/market needs and technical challenges.
- (2) The identified key opportunity items are reviewed by Board of Directors and approved as global development projects.
- (3) The remained development proposals are handled by the relevant regional development departments as local development projects.

Case Studies/Examples of Process Application to Physical Risks

In recent years, extreme weather events such as typhoons and torrential rains have increased due to climate change. These physical risks are defined in our Risk Map 2022 as moderate in impact and low in frequency. Therefore, we mitigate the identified risks by applying insurance coverage against such natural disasters.

In fact, the torrential rains in Hiroshima in June 2018 caused a significant damage to a customer's factory and a subcontractor located near the factory, while our manufacturing machinery installed at the subcontractor was also damaged by the floods. The damage, which amounted to 246 million yen, was fully covered by insurance, which helped to minimize the financial damage.

Case Study/Example of Applying the Process to Transitional Opportunities

We see the development of new markets by solving problems related to climate change as one of the major opportunities. Anticipating the market impact of reducing CO₂ emissions in our customers' production and delivery, we decided to follow our opportunity management process to develop a higher volume-efficiency pouch. As a result, we succeeded in developing "Fuji Pouch" (a bottle-like soft pouch with a faucet) and its production machinery in Japan. Compared to conventional bottle containers, Fuji Pouch can reduce the amount of plastic used by more than 70%, and with a 50% improvement in volumetric efficiency, it can also improve transportation efficiency by 50%, contributing to CO₂ reduction. These products were launched in the market in 2016 and are widely used in daily necessities such as shampoo, conditioner, and food products, and have been adopted by many customers including major global customers

who are focusing on environmental measures such as climate change, as they can greatly contribute to reducing the weight and weight of containers.

C2.2a

(C2.2a) Which risk types are considered in your organization's climate-related risk assessments?

	Relevance & inclusion	Please explain
Current regulation	Relevant, always included	<p>According to the risk map for fiscal 2022 approved by Board of Directors, among the climate-related risks, inappropriate responses to legal and regulatory issues are considered to have high impact on management and moderate likelihood of occurrence.</p> <p>For this reason, regional environmental managers monitor GHG emissions and energy use in accordance with the laws and regulations in each country or region, under the direction of the executive officer in charge of each region (Japan, America, Europe and ASEAN).</p> <p>However, if changes in laws and regulations, such as CFC emission control laws and energy conservation laws, were to be made, there would be a risk that our business, financial condition and operational results may be affected materially and adversely if we fail to take appropriate actions.</p> <p>For example, if these environmental standards were to reduce allowed emission levels of hazardous substances that we currently report for under the PRTR Act, we may be required to install more sophisticated treatment equipment, which could have an adverse financial impact. In addition, we pay an annual recycling fee of approximately 30 million yen as a consignment fee for packaging recycling under the Containers and Packaging Recycling Law, but if this fee were to increase due to further emission controls or mandatory recycling in order to mitigate climate change, there would be a risk that our financial condition could be affected adversely. For example, in UK a plastic packaging tax comes into effect in April 2022, imposing a tax of 200 pounds per ton if the recycled material content is lower than 30%. In addition, if we were unable to comply with these laws and regulations, there would be a risk that our reputation for corporate social responsibility could be damaged, resulting in decline of our sales turnover.</p>
Emerging regulation	Relevant, always included	<p>According to the risk map for fiscal 2022 approved by Board of Directors, among the climate-related risks, inappropriate responses to legal and regulatory issues are considered to have high impact on management and moderate likelihood of occurrence.</p> <p>While we generally benefit from enhanced regulations of our customers' products, demand for our services and products could be adversely affected by amendments or repeals of laws or changes in regulatory enforcement policies regarding those laws. An example of</p>

		<p>regulations that may affect our business is the financial impact risk from carbon taxes. If a carbon price is implemented to the level recommended by the Carbon Pricing Leadership Coalition ("CPLC") (\$40 to \$100 per tonne of CO2 in 2030), an additional annual expenditure of approximately 0.7-1.6 billion yen would be required, which would impact our financial status significantly.</p> <p>In addition, there is a risk that our business, which manufactures and sells labels for PET bottle beverage, will be significantly affected by the certification of environmentally friendly products and the requirement for businesses to reduce emissions and recycle resources under the Law Concerning the Promotion of Resource Recycling of Plastics, which went into effect in April 2022. Therefore, under the leadership of the Executive Officer, we are working to reduce the emission of greenhouse gases and strengthen the development and supply of environmentally friendly products.</p>
Technology	Relevant, always included	<p>The risk map for fiscal 2022 approved by Board of Directors defines the risk of business transformation due to rising environmental issues, including climate change, as having high impact on management and low likelihood of occurrence.</p> <p>Specifically, in the absence of technological innovation in such areas as the development of low-carbon products and systems, we may not be able to provide products that meet the standards demanded by the markets and customers, which could lead to a decline in sales. Therefore, investment in technological innovation, such as the development of low-carbon products and systems, is considered to be the key to our market expansion, and the risks and impacts are discussed at the global development meetings based on market conditions, customer requirements and technical difficulties, with the Board of Directors making the final decisions.</p>
Legal	Relevant, always included	<p>According to the risk map for fiscal 2022 approved by Board of Directors, among the climate-related risks, inappropriate responses to legal and regulatory issues are considered to have high impact on management and moderate likelihood of occurrence.</p> <p>In this area, the risk is considered to be lawsuits from citizens and other stakeholders due to inappropriate responses to CFC emission control laws and energy conservation laws.</p> <p>Therefore, under the direction of the executive officers in charge of each region (Japan, the United States, Europe and ASEAN), our environmental and manufacturing managers are working to reduce CFC and energy emissions in accordance with the laws and regulations in each country.</p>
Market	Relevant, always included	<p>The risk map for fiscal 2022 approved by Board of Directors defines the risk of business transformation due to rising environmental issues, including climate change, as having high impact on management and low likelihood of occurrence.</p>

		<p>In this category, there is a possibility that the market shift to more sustainable packaging, such as biomass, which emits less CO2 in total over its life cycle, will be more demanding and rapid, and there is also a risk of business continuity against a shift to paper products.</p> <p>Therefore, we are introducing products such as RecShrink™, which was developed as a recyclable plastic packaging label with lower environmental impact to meet or exceed market expectations.</p>
Reputation	Relevant, always included	<p>In the risk map for fiscal 2022 approved by Board of Directors, among the climate-related risks, reputational damage is identified as having moderate impact on management and low likelihood of occurrence.</p> <p>Poor publicity from investors, consumers, employees and other stakeholders due to a lack of action on climate change issues could result in a decline in stock value and employee shortages, among other risks.</p> <p>IR, HR and corporate planning departments monitor this risk under the guidance of the CEO. And related key issues are discussed at board meetings. The methods to disclose non-financial information of FSG include statutory financial statements and business reports for General Meeting of Shareholders, the publications in our website such as Integrated Reports, Sustainability Reports and Environmental Reports as well as environmental rating platforms such as CDP, EcoVadis and Sedex.</p>
Acute physical	Relevant, always included	<p>The risk map for fiscal year 2022 approved by Board of Directors indicates that among climate-related risks, natural disasters, which are physical risks of an urgent nature, have moderate impact on management and low likelihood of occurrence.</p> <p>Loss of sales due to inability to produce due to natural disasters such as typhoons and floods, and loss of confidence due to inability to supply essential products are considered as such risks.</p> <p>Therefore, a business continuity plan is prepared under the direction of CEO and discussed in Board of Directors.</p>
Chronic physical	Relevant, always included	<p>In the risk map for fiscal 2022 approved by Board of Directors, chronic physical risks have high impact on management and are considered to have moderate likelihood of occurrence.</p> <p>As our main product, shrink sleeve labels are made of heat-shrinkable film. One of the chronic physical risks where the average temperature increases due to the greenhouse gas effect will make the product shrunk before use and therefore the product will lose its value as a packaging product. This makes it impossible to supply products that meet the customer specifications, and there is a risk that we may be in breach of contract with our customers and suppliers. To mitigate this risk, we continue to implement energy-saving activities such as updating large energy-consuming production and air-conditioning equipment and replacing lighting equipment with LEDs.</p>

C2.3

(C2.3) Have you identified any inherent climate-related risks with the potential to have a substantive financial or strategic impact on your business?

Yes

C2.3a

(C2.3a) Provide details of risks identified with the potential to have a substantive financial or strategic impact on your business.

Identifier

Risk 1

Where in the value chain does the risk driver occur?

Direct operations

Risk type & Primary climate-related risk driver

Emerging regulation
Carbon pricing mechanisms

Primary potential financial impact

Increased indirect (operating) costs

Company-specific description

Demand for our services and products can be at risk of being adversely affected by the amendment or repeal of laws related to new regulations or changes in regulatory enforcement policies.

According to the 1.5°C scenario, if the newly established carbon tax is levied at the level of \$135-245/t-CO₂eq, it would result in an increase in expenditures of 2.8-5.0 billion yen annually, assuming that the current emission levels are maintained, which could have a significant impact on our business. Therefore, we have set a CO₂ emission reduction target for the entire Fuji Seal Group globally in the future, with the aim of achieving a 1% reduction in emissions each year.

As a specific example, in 2022, the once-through boiler for the printing presses was replaced at the Tsukuba Plant, which significantly reduced the use of city gas, resulting in a 164 tons reduction in CO₂ emissions.

Time horizon

Long-term

Likelihood

Likely

Magnitude of impact

High

Are you able to provide a potential financial impact figure?

Yes, an estimated range

Potential financial impact figure (currency)

Potential financial impact figure – minimum (currency)

2,800,000,000

Potential financial impact figure – maximum (currency)

5,000,000,000

Explanation of financial impact figure

The financial impact is based on our CO₂ emissions in 2022.

If the new carbon tax of \$135-245/t-CO₂e is imposed on our CO₂ emissions in Scope 1+Scope 2, and we maintain the emission level as it is, the new tax will result in an additional USD21-38M/year where Scope 1+Scope 2=155,266t-CO₂/year x USD135-245/t-CO₂, which is an additional payment of JPY 2.8-5.0 billion annually.

Cost of response to risk

2,758,000,000

Description of response and explanation of cost calculation

Under the direction of the executive officer in charge of each region (Japan, US, Europe, and ASEAN), environmental managers and production managers are working to reduce and control GHG emissions and energy consumption in order to comply with the laws and regulations of each country. In particular, in order to reduce the use of organic solvents, the main cause of CO₂ emissions, and to reduce the risk of fires, the Group has been installing water-based printing equipment, and therefore, more than 2 billion yen in capital investment of such equipment has been approved in the last 3 years in several regions. The breakdown is as follows: UK '17: 560 million, Japan '19: 780 million, Japan '20: 680 million, and the U.S. '20: 570 million.

In Japan, approximately 168 million yen in 2022 has been invested to reduce our environmental impact, and as an example in 2022, the once-through boiler for printing presses at our Tsukuba Plant was renewed, which resulted in a 164 tons reduction in CO₂ emissions due to reduced use of city gas. We are currently considering initiatives to reduce Scope 3 CO₂ emissions through renewable energy, procurement of non-fossil certificates, and supply chain collaboration.

Comment

Identifier

Risk 2

Where in the value chain does the risk driver occur?

Downstream

Risk type & Primary climate-related risk driver

Reputation

Increased stakeholder concern or negative stakeholder feedback

Primary potential financial impact

Decreased access to capital

Company-specific description

Risks of poor reputation and reputational damage related to environmental issues such as climate change are one of the risks identified in the risk map approved by Board of Directors.

As institutional investors and shareholders around the world are increasingly interested in ESG investments, there is a risk that delays in addressing climate change could lead to a decline in corporate value as well as in share price.

For example, foreign corporations and other financial institutions hold approximately 53.55% (March 2023) of the Company's shares, and if the Company's disclosure of risks and opportunities related to climate change and its business strategy is inadequate, there is a risk that these institutional investors could sell their shares and have a significant impact on its market capitalization.

Time horizon

Medium-term

Likelihood

More likely than not

Magnitude of impact

High

Are you able to provide a potential financial impact figure?

Yes, a single figure estimate

Potential financial impact figure (currency)

4,960,000,000

Potential financial impact figure – minimum (currency)

Potential financial impact figure – maximum (currency)

Explanation of financial impact figure

The financial impact is calculated based on the Company's share price. If we are unable to meet the environmental requirements of our stakeholders and are excluded from investments, there is a risk that our corporate value will decline and our share price will decline.

If institutional investors were to sell their shares and the share price declined by 6%, the total market value as of March 2023 would be approximately 4.96 billion yen.

Share price JPY1,510 x 6% x (number of shares issued 60,161,956 - number of treasury stock 5,391,436) = 4.96 billion yen (as of March 2023)

Cost of response to risk

44,000,000

Description of response and explanation of cost calculation

To avoid this risk, we will focus on demonstrating our commitment to climate change to institutional investors, and since 2019, we have conducted a third-party verification (at a cost of 1.2 million yen) on CO2 emissions to understand the GHG emissions of the entire group and verify the energy consumption of 27 sites (13 overseas and 14 domestic sites). Before constructing a new plant in the U.S., an environmental assessment (10 million yen) was conducted as part of the environmental due diligence for a new model plant that embodies the vision of "human- and environment-friendly company". In addition, a global environmental data collection platform was built in a cloud-based system (8 million yen), and supplier questionnaires were digitized (10 million yen) so that our business partners can enter the data at our website. In addition, an external consultant (at a cost of approximately 15 million yen) was used to further enhance the content of the integrated report.

Comment

Identifier

Risk 3

Where in the value chain does the risk driver occur?

Direct operations

Risk type & Primary climate-related risk driver

Acute physical
Flood (coastal, fluvial, pluvial, groundwater)

Primary potential financial impact

Increased indirect (operating) costs

Company-specific description

In recent years, climate change has led to an increase in typhoons, torrential rains, and other extreme weather events. In Japan, which is particularly vulnerable to heavy rainfall, FSG has six plants in Nabari, Tsukuba, Yuki, Yamagata, Ube, and Hyogo, and has a variety of customers and partner companies. There is a risk of damage to buildings, products and employees in these areas due to extreme weather events caused by climate change and other factors. We use Global Diagnostic Reports from insurance brokerage firms to assess the risk of such natural disasters and physical risks (e.g., infectious diseases) at each site. This risk information is then evaluated under the direction of CEO and reviewed by Board of

Directors.

Specifically, as a result of the heavy rainfall disaster in Hiroshima in June 2018, our manufacturing machinery located at our customer's plant and at a subcontractor located near our customer's plant was also damaged by flooding.

As a result, the machines were scrapped and we were forced to suspend production.

The damage caused by the flooding amounted to 246 million yen, but all of the damage was covered by insurance and the financial impact was essentially zero.

Time horizon

Short-term

Likelihood

More likely than not

Magnitude of impact

Medium-high

Are you able to provide a potential financial impact figure?

Yes, an estimated range

Potential financial impact figure (currency)

Potential financial impact figure – minimum (currency)

300,000,000

Potential financial impact figure – maximum (currency)

700,000,000

Explanation of financial impact figure

Regarding the financial impact of the torrential rains that occurred in Hiroshima in June 2018, our manufacturing equipment installed at a customer's plant and at a subcontractor located near the customer's plant was also damaged by flooding, amounting to 246 million yen. The "Global Diagnostic Report" indicated that production sites in Thailand and Mexico are at risk of river flooding, and if similar damage were to occur at our factories, we believe the damage would be more severe due to the size of the factories, so we have set compensation limits by multiplying theoretical damage rates for assets including buildings, equipment, and inventory at each location.

Cost of response to risk

420,000,000

Description of response and explanation of cost calculation

The insurance structure is designed to provide adequate coverage for our business conditions by adding a master policy as a supplement or rider to the local policies tailored to the risks of each location. Property and profit insurance covers losses due to damage or business interruption to plants and machinery caused by natural disasters or fire, and liability insurance covers damages caused to third parties as a result of our business operations. We also have several plants with similar production systems, and

have a business continuity plan in place to ensure that in the event of an emergency, we can supply all types of products globally, not only to the affected country, but also to all other regions. Premiums and brokerage fees in 2022: JPY420 million (Japan: JPY50 million, Global: EUR270k=JPY370million)

Comment

C2.4

(C2.4) Have you identified any climate-related opportunities with the potential to have a substantive financial or strategic impact on your business?

Yes

C2.4a

(C2.4a) Provide details of opportunities identified with the potential to have a substantive financial or strategic impact on your business.

Identifier

Opp1

Where in the value chain does the opportunity occur?

Direct operations

Opportunity type

Resource efficiency

Primary climate-related opportunity driver

Use of more efficient production and distribution processes

Primary potential financial impact

Increased revenues resulting from increased production capacity

Company-specific description

We have decided to build a new production facility in North Carolina, USA, in order to realize our vision "Delivering value friendly to people and the environment" and to transform our strength, total packaging services, into something with even higher added value. The new plant will enhance production of environmentally friendly products and introduce more people- and environment-friendly production equipment (new printing methods with higher productivity). Specifically, the introduction of printing methods that do not use organic solvents will reduce GHG emissions and create a more comfortable work environment. In addition, the plant is expected to achieve operating income profitability in the first year of operation through cost reductions achieved by productivity improvements through automation. Part of the plant construction was financed by an environmental rating loan provided by Development Bank of Japan, Inc. During the screening process, the company received a rating of "advanced in its commitment to

environmental considerations". In the Americas, we continue to grow by taking advantage of social and market changes as business opportunities, and we expect the new plant to generate \$110 million in sales annually.

Time horizon

Medium-term

Likelihood

Virtually certain

Magnitude of impact

Medium-high

Are you able to provide a potential financial impact figure?

Yes, a single figure estimate

Potential financial impact figure (currency)

14,500,000,000

Potential financial impact figure – minimum (currency)

Potential financial impact figure – maximum (currency)

Explanation of financial impact figure

Sales forecast of \$110M is listed as the potential impact. This is an excerpt from the business plan in the supplemental material of the financial results briefing for FY2022. In the Americas, we continue to grow by taking advantage of business opportunities presented by changes in society and markets. In the Corona Pandemic, we have played an important role as an essential business, and demand for our products is still growing. By building a new plant in the U.S., we will continue to fulfill our responsibility to supply essential packages to society and deliver value that is friendly to people and the environment.

Cost to realize opportunity

9,600,000,000

Strategy to realize opportunity and explanation of cost calculation

The plant will enhance production of environmentally friendly products and introduce more people- and environment-friendly production equipment (new printing methods with higher productivity). Specifically, the introduction of printing methods that do not use organic solvents will reduce GHG emissions and create a more comfortable work environment. In addition, we plan to achieve profitability in operating income from the first year of operation through cost reductions achieved by productivity improvements through automation. We selected the location that covers a wide range of customer and supplier sites for efficient logistics, and conducted environmental due diligence prior to construction. The cost to realize the opportunity is 9.6 billion yen, of which 3.8 billion yen is for land and construction and 5.8 billion yen is for capital investment.

Comment

Identifier

Opp2

Where in the value chain does the opportunity occur?

Direct operations

Opportunity type

Products and services

Primary climate-related opportunity driver

Development and/or expansion of low emission goods and services

Primary potential financial impact

Increased revenues resulting from increased demand for products and services

Company-specific description

We are committed to developing eco-friendly packaging to reduce our environmental impact. We are constantly developing low CO₂-emission products for shrink labels, tack labels and pouches used in beverage and food packaging, including thin-walled labels, labels made from biomass materials, and packaging with recycled plastics and renewable functions. We see the increased demand for products that can reduce the environmental impact of these products as an opportunity.

Specifically, we have developed and are offering the industry's thinnest shrink labels and a machine (TLS) that rapidly places labels in the container for thermal shrinking. As the thickness is less than half that of conventional labels, the amount of plastic used can be reduced by about 50%. The reduction in the amount of plastic used by this label in fiscal 2022, both in Japan and overseas, was 4287 tons. By offering products with such a low impact on climate change, we aim to capture the intentions of our customers and consumers to increase sales.

Time horizon

Medium-term

Likelihood

Virtually certain

Magnitude of impact

High

Are you able to provide a potential financial impact figure?

Yes, a single figure estimate

Potential financial impact figure (currency)

14,100,000,000

Potential financial impact figure – minimum (currency)

Potential financial impact figure – maximum (currency)

Explanation of financial impact figure

As the demand for sustainable products increases, so do our business opportunities. Sales of thin-walled labels, biomass labels and other products related to environmental issues account for more than 20% of sales turnover in shrink label business in Japan. In particular, in Japan, a synergetic combination of thinner shrink labels and their dedicated application machines has contributed positively to the increase in sales of both packaging labels and machinery; therefore, the increase in sales turnover of shrink labels and application machines in Japan is shown as a financial impact.

Increase in sales of shrink labels in Japan $45,906 - 36,568 = 11,338$ million yen

Increase in sales of machinery in Japan $6,831 - 4,081 = 2,750$ million yen

Increase in sales of shrink labels and machinery $11,338 + 2,750 = 14,088$ million yen

Cost to realize opportunity

360,000,000

Strategy to realize opportunity and explanation of cost calculation

We are making environmentally friendly actions for all R&D actions for all of our products (shrink labels, pressure sensitive labels, pouch containers and packaging application machinery) to reduce costs and environmental impact. We are also focusing on increasing the speed of development in each region, both domestically and internationally, through joint research with outside companies and industry-academic partnerships with several universities.

To ensure that we do not miss any of these opportunities, we hold an annual global development meeting at the beginning of each fiscal year to assess the impact on our business and the feasibility of our technical challenges. The total project development cost to realize the opportunity is 360 million yen, including 90 million yen for materials and 270 million yen for machinery.

Specifically, we have simultaneously developed and are providing our system with the industry's thinnest shrink labels and a specialized machine (product name: TLS) that allows labels to be applied to containers at high speed and heat-shrunk. As the thickness is less than half that of conventional labels, the amount of plastic used can be reduced by about 50%. The reduction in the amount of plastic used by thinner labels in fiscal 2022, both in Japan and overseas, was 4,287 tons.

Comment

Identifier

Opp3

Where in the value chain does the opportunity occur?

Direct operations

Opportunity type

Markets

Primary climate-related opportunity driver

Access to new markets

Primary potential financial impact

Increased revenues through access to new and emerging markets

Company-specific description

Our basic management vision is "to understand our customers' needs for packaging and provide differentiated products (development, proposal, and supply), and to be the first choice partner for our customers". We are strengthening cooperation within the Group, and through the exchange of technology and market information, we are striving to improve quality and productivity, develop new products and explore new markets. In recent years, many of our customers have begun to consider the sustainability of their products in relation to climate change. Against this backdrop, in September 2019, our U.S. subsidiary American Fuji Seal Inc. successfully developed a shrink label that can be recycled into plastic bottles (RecShrink™). The RecShrink™ label and washable ink system has been evaluated according to the APR (American Plastics Recycling Association) protocol, "Critical Guidance Protocol for Clear PET Articles with Labels and Closures" ("PET-CG-02"). Approved by the standard recycling protocol, the special shrink label has been adopted by many customers, including global dairy and beverage manufacturers, as a new material that allows for recycling of PET bottles and of itself.

These efforts have been featured in the Packaging Digest and have attracted a great deal of attention, and we regard the product as an important part of our marketing strategy. In addition, we have strengthened our promotion of the product in our environmental report and other publications on our website, which has led to an increase in sales. The adoption of RecShrink has expanded to 33 products, including products from major beverage manufacturers, with the goal of 20% of products for beverage PET in the Americas, 10% in Europe, and 5% in ASEAN.

Time horizon

Short-term

Likelihood

Virtually certain

Magnitude of impact

High

Are you able to provide a potential financial impact figure?

Yes, a single figure estimate

Potential financial impact figure (currency)

10,700,000,000

Potential financial impact figure – minimum (currency)

Potential financial impact figure – maximum (currency)

Explanation of financial impact figure

As the demand for sustainable products increases, so do our business opportunities. Our U.S. subsidiary, American Fuji Seal Inc.'s successful RecShrink™ label and washable ink system has been a significant contributor to our shrink business sales in the Americas. The impact was calculated based on the fact that the company has begun to launch the products in Europe and ASEAN countries and is aiming for a 20% share in the Americas, 10% in Europe, and 5% in ASEAN countries as a product for beverage PET.

(U.S.) $43,800 \times 20\% + (\text{Europe})14,400 \times 10\% + (\text{Asean})10,000 \times 5\% = 10,700$ million yen.

Cost to realize opportunity

100,000,000

Strategy to realize opportunity and explanation of cost calculation

We are strengthening our intra-group cooperation and are working to improve quality and productivity, develop new products and explore new markets through the exchange of technology and market information. In recent years, many of our customers have begun to consider the sustainability of their products in relation to climate change. The development of these new markets and others is one of the opportunities we have identified in relation to climate change. To ensure that we do not miss these opportunities, we hold an annual global development meeting at the beginning of each year to assess the business impact and feasibility of our technology challenges. The cost of realizing the opportunities is 2.4 billion yen in fiscal 2020, and we are using these development costs to explore new markets and develop new products.

As a specific example, in September 2019, our U.S. subsidiary, American Fuji Seal Inc. successfully developed a new product, a shrink label that can be recycled into plastic bottles (RecShrink™). RecShrink™ is a new material that can be recycled at the same time as recycling PET bottles and is being used by many customers, including global dairy and beverage companies. The cost to develop this product and realize the opportunity is 100 million yen in R&D expenses so far, primarily for materials. These development expenses are used to explore new markets and develop new products.

Comment

C3. Business Strategy

C3.1

(C3.1) Does your organization's strategy include a climate transition plan that aligns with a 1.5°C world?

Row 1

Climate transition plan

No, but our strategy has been influenced by climate-related risks and opportunities, and we are developing a climate transition plan within two years

Explain why your organization does not have a climate transition plan that aligns with a 1.5°C world and any plans to develop one in the future

We have been conducting studies to qualitatively achieve a 2°C world, but we have not yet completed to a level where we can publish until we have a concrete climate transition plan that is consistent with a 1.5°C world. A new environmental subcommittee has been established within the Sustainability Committee, and the goal is to study and prepare a company-wide climate transition plan within two years, with the final plan to be made public.

C3.2

(C3.2) Does your organization use climate-related scenario analysis to inform its strategy?

	Use of climate-related scenario analysis to inform strategy
Row 1	Yes, qualitative, but we plan to add quantitative in the next two years

C3.2a

(C3.2a) Provide details of your organization’s use of climate-related scenario analysis.

Climate-related scenario	Scenario analysis coverage	Temperature alignment of scenario	Parameters, assumptions, analytical choices
Transition scenarios IEA NZE 2050	Company-wide		<p>How the selected scenarios were identified, with reference to the inputs, assumptions, and analytical methods used: in accordance with the Ministry of Environment guidelines, the new 1.5°C scenario parameters were used to replace the 2°C scenario. Assuming that manifestations would occur, the impact on the business was analyzed with the involvement of relevant departments such as corporate planning and finance.</p> <p>A description of the time horizons considered and why they are relevant to your company: we have established a long-term time horizon over which the risk factors in each scenario are likely to materialise and identified risks and opportunities to the Group’s overall business activities over that period.</p> <p>A description of the areas of your organization that have been considered as part of the scenario analysis:</p>

		<p>Our business is located in the packaging industry, as we manufacture and sell packaging materials and their attaching machines. The entities that affect our business include upstream energy suppliers and raw material manufacturers, and downstream buyers - customers and consumers - as well as other competitors and new entrants who supply substitute products, end-processing recyclers, and relevant government and industry organizations.</p> <p>A case study of how the results of the scenario analysis have directly influenced your business objectives and strategy: Reducing group-wide GHG emissions is becoming a strategic imperative as additional annual expenditures of between 2.8 and 5.0 billion yen for the 1.5oC scenario are expected to be made due to carbon taxes being considered for introduction in many countries in the future. In addition to existing energy reductions, we are also looking at renewable energy-related investments such as solar power generation equipment and offset credits, and the introduction of carbon pricing to promote green investments within the company. In addition to existing energy reduction practices, we have begun discussions on future emission reduction action plans, with an eye to renewable energy-related investments such as solar power generation equipment and offset credits, as well as the introduction of carbon pricing to promote internal green investments.</p>
<p>Physical climate scenarios RCP 8.5</p>	<p>Company-wide</p>	<p>How the selected scenarios were identified, with reference to the inputs, assumptions, and analytical methods used: in accordance with the Ministry of Environment guidelines, 4°C scenarios was assumed; for the 4°C scenario, the physical risk from RCP 8.5 and other sources. Assuming that manifestations would occur, the impact on the business was analyzed with the involvement of relevant departments such as corporate planning and finance.</p> <p>A description of the time horizons considered and why they are relevant to your company: we have established a long-term time horizon over which the risk factors in each scenario are likely to materialise and identified risks and opportunities to the Group's overall business activities over that period.</p> <p>A description of the areas of your organization that have been considered as part of the scenario analysis:</p>

			<p>Our business is located in the packaging industry, as we manufacture and sell packaging materials and their attaching machines. The entities that affect our business include upstream energy suppliers and raw material manufacturers, and downstream buyers - customers and consumers - as well as other competitors and new entrants who supply substitute products, end-processing recyclers, and relevant government and industry organizations.</p> <p>A description of how the results of the scenario analysis have informed your business objectives and strategies: By estimating the potential financial impact on your specific business, you were able to provide management with a basis for prioritizing response measures and calculating an appropriate amount to spend. The results of these analyses can be reflected in the next and subsequent mid-term management plans.</p> <p>A case study of how the results of the scenario analysis have directly influenced your business objectives and strategy: In a 4°C world, physical risks from climate change, including extreme weather events, are found to increase. Physical risks will become apparent at our own sites, customer factories, and resource suppliers. Continued dependence on oil will be destabilized by geopolitical risks, and procurement costs are expected to rise. Development of recycling will be delayed, waste issues will not be adequately addressed, and stakeholders may lose confidence in the company.</p>
<p>Transition scenarios IEA 2DS</p>	<p>Company-wide</p>		<p>How the selected scenarios were identified, with reference to the inputs, assumptions, and analytical methods used: in accordance with the Ministry of Environment guidelines, 2°C scenarios was assumed; for the 2°C scenario, the transition risk manifested from the 2DS. Assuming that manifestations would occur, the impact on the business was analyzed with the involvement of relevant departments such as corporate planning and finance.</p> <p>A description of the time horizons considered and why they are relevant to your company: we have established a long-term time horizon over which the risk factors in each scenario are likely to materialise and identified risks and opportunities to the Group's overall business activities over that period.</p>

		<p>A description of the areas of your organization that have been considered as part of the scenario analysis: Our business is located in the packaging industry, as we manufacture and sell packaging materials and their attaching machines. The entities that affect our business include upstream energy suppliers and raw material manufacturers, and downstream buyers - customers and consumers - as well as other competitors and new entrants who supply substitute products, end-processing recyclers, and relevant government and industry organizations.</p> <p>A case study of how the results of the scenario analysis have directly influenced your business objectives and strategy: Reducing group-wide GHG emissions is becoming a strategic imperative as additional annual expenditures of between 0.8 and 2.0 billion yen are expected to be made due to carbon taxes being considered for introduction in many countries in the future. In addition to existing energy reductions, we are also looking at renewable energy-related investments such as solar power generation equipment and offset credits, and the introduction of carbon pricing to promote green investments within the company. In addition to existing energy reduction practices, we have begun discussions on future emission reduction action plans, with an eye to renewable energy-related investments such as solar power generation equipment and offset credits, as well as the introduction of carbon pricing to promote internal green investments.</p>
--	--	--

C3.2b

(C3.2b) Provide details of the focal questions your organization seeks to address by using climate-related scenario analysis, and summarize the results with respect to these questions.

Row 1

Focal questions

As a leading company in the packaging industry, we are committed to the development of people-friendly packaging, environmentally friendly products, sustainable growth, and stable supply as our materiality in order to realize a sustainable society. The current business model uses a large amount of petroleum-derived raw materials and energy, and the challenge is to determine what mitigation measures should be implemented, at what scale, and at what timing, in order to achieve the net zero emissions by 2050.

Results of the climate-related scenario analysis with respect to the focal questions

As a result of the scenario analysis conducted, it was predicted that not only impact factors common to each industry, but also the plastic waste problem and label-less packaging, which are deeply related to the packaging industry, will become more apparent in the future. In particular, it was found that in order to reduce GHG emissions, it is necessary not only to accumulate energy-saving measures, but also to facilitate the reduction of environmental impact by replacing the use of organic solvents with that of aqueous solutions.

Therefore, as a mechanism to promote capital investment to reduce GHG emissions and the introduction of renewable energy, Fuji Seal Japan actually used the internal carbon price as a payback plan in the selection of investment projects for new factories to lower the investment threshold. In the U.S., a procurement price limit (10\$/MWh) was set based on the internal carbon price and emission factor to determine the amount of renewable energy to be procured.

C3.3

(C3.3) Describe where and how climate-related risks and opportunities have influenced your strategy.

	Have climate-related risks and opportunities influenced your strategy in this area?	Description of influence
Products and services	Yes	The risks and opportunities associated with "development and/or expansion of low-emission products and services" have a significant impact on the medium- to long-term business strategy to provide systematic solutions: for the purpose of reducing CO2 emissions, thinner shrink labels would reduce the materials used, but it would also weaken the rigidity of the labels, and it would be difficult to apply labels onto containers with conventional labeling machines. To address this issue, our Machinery Division has developed a new machine ("TLS" model) that enables high-speed application, and by combining our thinnest shrink labels with the TLS model, the customers have been able to reduce both CO2 emissions and to improve labeling efficiency at the same time. With a thickness of less than half of conventional labels, our shrink labels can reduce plastic use by about 50%. The reduction in the amount of plastic used by adopting this thinner label in FY2022, both in Japan and overseas, was 4,287 tons. Furthermore, our sales ratio targets for 2025 include 100% environmentally

		friendly products, 50% renewable design products, and 20% recycled materials.
Supply chain and/or value chain	Yes	<p>The risks and opportunities associated with "development and/or expansion of low-emission products and services" have a significant impact on medium- and long-term business strategies in terms of our product, technology and business development policies. Up until now, FSG has grown by adopting its own in-house development policy in order to respond quickly to customer requests; however, as the impact of its products on society has increased, there have been cases where FSG has not always met all the demands from all the stakeholders. By changing the way we think and actively working in collaboration with other companies, we have been able to develop products that we could not achieve before. For example, RecShrink™, developed by our US subsidiary American Fuji Seal, Inc. was commercialized in 2019 in collaboration with the customer Nestle, the supplier Eastman, and the recycler organization APR. The developed shrink labels are recognized as a new material that can be recycled along with plastic bottle containers, and have been adopted by many customers, including global dairy and beverage manufacturers. These efforts have not only been published in the company's environmental report, but have also been featured in the industry's Packaging Digest, which has attracted a great deal of attention and led to further sales increases. The adoption of Recshrink has expanded to 33 products, including products from major beverage manufacturers, and we are aiming for 20% in the Americas, 10% in Europe, and 5% in ASEAN as products for beverage PET. In addition, we have conducted a supplier survey and asked suppliers to comply with our action policy, which requires calculation of the three Scope 3 categories, respect for human rights, and continuation of environmental impact reduction activities. We are deepening our engagement with suppliers by holding dialogues with them based on the results of these surveys.</p>
Investment in R&D	Yes	<p>The risks and opportunities associated with "entering new markets" have a significant impact on medium- and long-term business strategies to invest in research and development of products that can reduce their environmental impact. Increasing concerns about climate change enlarge the demand for environmentally friendly products, not only for functions such as the display of legal information and eye-catching decorations for customers, but</p>

		<p>also for the use of recycled and biomass-derived raw materials as well as reduced raw materials for sustainable circular sourcing. In order to respond to these market demands in a timely manner, FSG now requires to incorporate the latest environmentally friendly technologies in all global development projects. New 2025 goals for renewable design and use of recycled materials were set in 2020, and proactive investment in R&D has been made since then. As a result, the percentage of sales accounted for by environmentally friendly products has increased year after year, from 41% in FY2020 to over 70% in FY2022. The company has created 18 new global development projects that integrate packaging and machinery development, bringing the total to 31 projects for the three-year period 2020-2022, compared to a target of 20 projects.</p>
Operations	Yes	<p>The risks and opportunities related to the use of more efficient production and logistics processes have a significant impact on the Fuji Seal Group's medium-term business strategy of reducing the environmental impact of manufacturing. Conventional environmental protection policies such as pollution prevention are not enough; we must set and achieve specific targets for energy use, CO2 emissions, and waste emissions in order to reduce the impact of our manufacturing processes, materials, products, and waste on the earth.</p> <p>More specifically, in order to achieve the 2050 net-zero target, Fuji Seal Group is constructing a new plant that is friendly to people and the environment, and is making capital investments (11.0 billion yen in 2022) aimed at reducing environmental impact through the use of renewable energy such as solar power generation as well as the introduction of water-based printing technology.</p>

C3.4

(C3.4) Describe where and how climate-related risks and opportunities have influenced your financial planning.

	Financial planning elements that have been influenced	Description of influence
Row 1	Direct costs Indirect costs	Access to capital: With more ESG-focused investments now than ever before, we have incorporated ESG investment into our financial plans in order to ensure that investors will hold our stock shares for longer periods

	<p>Access to capital</p>	<p>of time from the medium to long term. From an ESG perspective our focus has mainly been on to products launch that meet customer needs, but now more on collaboration with our customers, suppliers, recyclers and other supply chain partners (e.g., Nestle/Eastman/APR for the development of RecShrink™). In order for our multi-stakeholders to understand such activities, we are actively disclosing non-financial information through integrated reports and environmental reports.</p> <p>Direct costs: we incorporate climate change-related risks and opportunities into our financial planning and report the results as part of our annual report. Opportunities to reduce operating costs related to sustainability have had a very positive impact on our financial planning. Increased awareness and consideration of our environmental impact has enabled us to reduce our operating costs by using energy-efficient technologies, processes and building materials to reduce our resource consumption.</p> <p>Indirect costs: We recognize that environmental issues are common to all humanity, and we continue to be creative and to challenge ourselves to manufacture products with environmental aspects in mind. In addition to reducing our environmental impact, we aim to develop and produce environmentally friendly products and solve environmental problems through our business activities. We also aim to contribute positively to society with people-friendly packaging, and to this end we facilitate investment in R&D and the development of human resources to encourage them to do so. Among these, we are strengthening R&D for low-carbon products and services, and our R&D expenditures for 2022 exceed 2.45 billion yen. In addition, we are focusing on installing equipment to reduce GHG emissions, and our investment in water-based printing equipment, a priority measure, has reached over 2 billion yen, and we are increasing this spending plan every year.</p> <p>In addition, to achieve 100% environmentally friendly products by 2025, we plan to invest 47.5 billion yen from 2021 to 2023 in our mid-term management plan.</p>
--	--------------------------	--

C3.5

(C3.5) In your organization’s financial accounting, do you identify spending/revenue that is aligned with your organization’s climate transition?

Identification of spending/revenue that is aligned with your organization’s climate transition	
<p>Row 1</p>	<p>No, but we plan to in the next two years</p>

C4. Targets and performance

C4.1

(C4.1) Did you have an emissions target that was active in the reporting year?

Intensity target

C4.1b

(C4.1b) Provide details of your emissions intensity target(s) and progress made against those target(s).

Target reference number

Int 1

Is this a science-based target?

No, but we anticipate setting one in the next two years

Target ambition

Year target was set

2019

Target coverage

Company-wide

Scope(s)

Scope 1

Scope 2

Scope 2 accounting method

Market-based

Scope 3 category(ies)

Intensity metric

Metric tons CO₂e per unit revenue

Base year

2017

Intensity figure in base year for Scope 1 (metric tons CO₂e per unit of activity)

0.3067

Intensity figure in base year for Scope 2 (metric tons CO₂e per unit of activity)

0.6017

Intensity figure in base year for Scope 3, Category 1: Purchased goods and services (metric tons CO₂e per unit of activity)

Intensity figure in base year for Scope 3, Category 2: Capital goods (metric tons CO₂e per unit of activity)

Intensity figure in base year for Scope 3, Category 3: Fuel-and-energy-related activities (not included in Scopes 1 or 2) (metric tons CO₂e per unit of activity)

Intensity figure in base year for Scope 3, Category 4: Upstream transportation and distribution (metric tons CO₂e per unit of activity)

Intensity figure in base year for Scope 3, Category 5: Waste generated in operations (metric tons CO₂e per unit of activity)

Intensity figure in base year for Scope 3, Category 6: Business travel (metric tons CO₂e per unit of activity)

Intensity figure in base year for Scope 3, Category 7: Employee commuting (metric tons CO₂e per unit of activity)

Intensity figure in base year for Scope 3, Category 8: Upstream leased assets (metric tons CO₂e per unit of activity)

Intensity figure in base year for Scope 3, Category 9: Downstream transportation and distribution (metric tons CO₂e per unit of activity)

Intensity figure in base year for Scope 3, Category 10: Processing of sold products (metric tons CO₂e per unit of activity)

Intensity figure in base year for Scope 3, Category 11: Use of sold products (metric tons CO₂e per unit of activity)

Intensity figure in base year for Scope 3, Category 12: End-of-life treatment of sold products (metric tons CO₂e per unit of activity)

Intensity figure in base year for Scope 3, Category 13: Downstream leased assets (metric tons CO2e per unit of activity)

Intensity figure in base year for Scope 3, Category 14: Franchises (metric tons CO2e per unit of activity)

Intensity figure in base year for Scope 3, Category 15: Investments (metric tons CO2e per unit of activity)

Intensity figure in base year for Scope 3, Other (upstream) (metric tons CO2e per unit of activity)

Intensity figure in base year for Scope 3, Other (downstream) (metric tons CO2e per unit of activity)

Intensity figure in base year for total Scope 3 (metric tons CO2e per unit of activity)

Intensity figure in base year for all selected Scopes (metric tons CO2e per unit of activity)

0.9084

% of total base year emissions in Scope 1 covered by this Scope 1 intensity figure

100

% of total base year emissions in Scope 2 covered by this Scope 2 intensity figure

100

% of total base year emissions in Scope 3, Category 1: Purchased goods and services covered by this Scope 3, Category 1: Purchased goods and services intensity figure

% of total base year emissions in Scope 3, Category 2: Capital goods covered by this Scope 3, Category 2: Capital goods intensity figure

% of total base year emissions in Scope 3, Category 3: Fuel-and-energy-related activities (not included in Scopes 1 or 2) covered by this Scope 3,

Category 3: Fuel-and-energy-related activities (not included in Scopes 1 or 2) intensity figure

% of total base year emissions in Scope 3, Category 4: Upstream transportation and distribution covered by this Scope 3, Category 4: Upstream transportation and distribution intensity figure

% of total base year emissions in Scope 3, Category 5: Waste generated in operations covered by this Scope 3, Category 5: Waste generated in operations intensity figure

% of total base year emissions in Scope 3, Category 6: Business travel covered by this Scope 3, Category 6: Business travel intensity figure

% of total base year emissions in Scope 3, Category 7: Employee commuting covered by this Scope 3, Category 7: Employee commuting intensity figure

% of total base year emissions in Scope 3, Category 8: Upstream leased assets covered by this Scope 3, Category 8: Upstream leased assets intensity figure

% of total base year emissions in Scope 3, Category 9: Downstream transportation and distribution covered by this Scope 3, Category 9: Downstream transportation and distribution intensity figure

% of total base year emissions in Scope 3, Category 10: Processing of sold products covered by this Scope 3, Category 10: Processing of sold products intensity figure

% of total base year emissions in Scope 3, Category 11: Use of sold products covered by this Scope 3, Category 11: Use of sold products intensity figure

% of total base year emissions in Scope 3, Category 12: End-of-life treatment of sold products covered by this Scope 3, Category 12: End-of-life treatment of sold products intensity figure

% of total base year emissions in Scope 3, Category 13: Downstream leased assets covered by this Scope 3, Category 13: Downstream leased assets intensity figure

% of total base year emissions in Scope 3, Category 14: Franchises covered by this Scope 3, Category 14: Franchises intensity figure

% of total base year emissions in Scope 3, Category 15: Investments covered by this Scope 3, Category 15: Investments intensity figure

% of total base year emissions in Scope 3, Other (upstream) covered by this Scope 3, Other (upstream) intensity figure

% of total base year emissions in Scope 3, Other (downstream) covered by this Scope 3, Other (downstream) intensity figure

% of total base year emissions in Scope 3 (in all Scope 3 categories) covered by this total Scope 3 intensity figure

% of total base year emissions in all selected Scopes covered by this intensity figure

100

Target year

2023

Targeted reduction from base year (%)

6

Intensity figure in target year for all selected Scopes (metric tons CO₂e per unit of activity) [auto-calculated]

0.853896

% change anticipated in absolute Scope 1+2 emissions

23

% change anticipated in absolute Scope 3 emissions

0

Intensity figure in reporting year for Scope 1 (metric tons CO₂e per unit of activity)

0.2900793421

Intensity figure in reporting year for Scope 2 (metric tons CO₂e per unit of activity)

0.5842768923

Intensity figure in reporting year for Scope 3, Category 1: Purchased goods and services (metric tons CO₂e per unit of activity)

Intensity figure in reporting year for Scope 3, Category 2: Capital goods (metric tons CO₂e per unit of activity)

Intensity figure in reporting year for Scope 3, Category 3: Fuel-and-energy-related activities (not included in Scopes 1 or 2) (metric tons CO₂e per unit of activity)

Intensity figure in reporting year for Scope 3, Category 4: Upstream transportation and distribution (metric tons CO₂e per unit of activity)

Intensity figure in reporting year for Scope 3, Category 5: Waste generated in operations (metric tons CO₂e per unit of activity)

Intensity figure in reporting year for Scope 3, Category 6: Business travel (metric tons CO₂e per unit of activity)

Intensity figure in reporting year for Scope 3, Category 7: Employee commuting (metric tons CO₂e per unit of activity)

Intensity figure in reporting year for Scope 3, Category 8: Upstream leased assets (metric tons CO₂e per unit of activity)

Intensity figure in reporting year for Scope 3, Category 9: Downstream transportation and distribution (metric tons CO₂e per unit of activity)

Intensity figure in reporting year for Scope 3, Category 10: Processing of sold products (metric tons CO₂e per unit of activity)

Intensity figure in reporting year for Scope 3, Category 11: Use of sold products (metric tons CO₂e per unit of activity)

Intensity figure in reporting year for Scope 3, Category 12: End-of-life treatment of sold products (metric tons CO2e per unit of activity)

Intensity figure in reporting year for Scope 3, Category 13: Downstream leased assets (metric tons CO2e per unit of activity)

Intensity figure in reporting year for Scope 3, Category 14: Franchises (metric tons CO2e per unit of activity)

Intensity figure in reporting year for Scope 3, Category 15: Investments (metric tons CO2e per unit of activity)

Intensity figure in reporting year for Scope 3, Other (upstream) (metric tons CO2e per unit of activity)

Intensity figure in reporting year for Scope 3, Other (downstream) (metric tons CO2e per unit of activity)

Intensity figure in reporting year for total Scope 3 (metric tons CO2e per unit of activity)

Intensity figure in reporting year for all selected Scopes (metric tons CO2e per unit of activity)

0.8743562344

Does this target cover any land-related emissions?

No, it does not cover any land-related emissions (e.g. non-FLAG SBT)

% of target achieved relative to base year [auto-calculated]

62.4610406576

Target status in reporting year

Underway

Please explain target coverage and identify any exclusions

We have set a target of reducing CO2 emissions per unit of production by 6% over 6 years at all of our sites without any exclusion, including our group companies, based on the target of rationalization of energy use required by the Act on the Rational Use of Energy, etc., with fiscal 2017 as the base year. The unit of sales for the calculation of basic unit is million yen.

Plan for achieving target, and progress made to the end of the reporting year

In FY2020-FY2021, unit CO2 emissions increased by 3.2% compared to FY17, partly due to the impact of Corona. Although each region individually reduced emissions by more than 10% per unit, the FY2020 boundary change increased the contribution of regions with higher intensity, resulting in the increase in total. However, in 2022, we were able to reduce CO2 emissions by 11,452 tons compared to last year, a year-on-year reduction of 6%. As a result, the progress rate to the target is 62.5%.

We have also set a new 2050 net-zero target and plan to raise the target step by step to achieve it, and we will continue to implement these and other reduction activities to achieve the 2050 target.

List the emissions reduction initiatives which contributed most to achieving this target

C4.2

(C4.2) Did you have any other climate-related targets that were active in the reporting year?

Net-zero target(s)

Other climate-related target(s)

C4.2b

(C4.2b) Provide details of any other climate-related targets, including methane reduction targets.

Target reference number

Oth 2

Year target was set

2020

Target coverage

Company-wide

Target type: absolute or intensity

Intensity

Target type: category & Metric (target numerator if reporting an intensity target)

Waste management

metric tons of waste generated

Target denominator (intensity targets only)

unit revenue

Base year

2017

Figure or percentage in base year

33.29

Target year

2025

Figure or percentage in target year

29.96

Figure or percentage in reporting year

33.74

% of target achieved relative to base year [auto-calculated]

-13.5135135135

Target status in reporting year

Underway

Is this target part of an emissions target?

No, this target is not part of an emissions target

Is this target part of an overarching initiative?

No, it's not part of an overarching initiative

Please explain target coverage and identify any exclusions

The scope of the program covers all sites of Fuji Seal Group.

Four types of waste are designated as target: waste plastic, waste ink, waste solvent, and paper waste. A new target has been set for 2020, which is to reduce the amount of waste that is not used effectively by 10% per unit of sales by FY2025, compared to FY17.

The goal is to contribute to the realization of a sustainable society by reducing land-fill waste and other waste that is not used effectively.

Plan for achieving target, and progress made to the end of the reporting year

Improvement on the recycling rate was made by examining where landfill waste could be reused and also by sorting it into smaller pieces.

The result for FY2022 was a 1.4% increase over FY17, and a 21% reduction from last year was made although the target was not achieved.

The reason for the large reduction is that the amount of landfill waste decreased by 20% in the Americas and 24% in Europe compared to last year due to the internal promotion of recycling in the Americas and Europe.

List the actions which contributed most to achieving this target

C4.2c

(C4.2c) Provide details of your net-zero target(s).

Target reference number

NZ1

Target coverage

Company-wide

Absolute/intensity emission target(s) linked to this net-zero target

Int1

Target year for achieving net zero

2050

Is this a science-based target?

Yes, we consider this a science-based target, and we have committed to seek validation of this target by the Science Based Targets initiative in the next two years

Please explain target coverage and identify any exclusions

The scope of the program covers all regions of Fuji Seal Group. We regard climate change as one of the most important environmental issues and have established mid-term targets (described in INT1) for the entire company. We are currently beginning to formulate a concrete low-carbon transition plan, with the ultimate goal of achieving virtually zero GHG emissions by 2050.

Do you intend to neutralize any unabated emissions with permanent carbon removals at the target year?

Unsure

Planned milestones and/or near-term investments for neutralization at target year

Planned actions to mitigate emissions beyond your value chain (optional)

C4.3

(C4.3) Did you have emissions reduction initiatives that were active within the reporting year? Note that this can include those in the planning and/or implementation phases.

Yes

C4.3a

(C4.3a) Identify the total number of initiatives at each stage of development, and for those in the implementation stages, the estimated CO₂e savings.

	Number of initiatives	Total estimated annual CO2e savings in metric tonnes CO2e (only for rows marked *)
Under investigation	0	0
To be implemented*	23	273.6
Implementation commenced*	0	0
Implemented*	5	4,525.1
Not to be implemented	0	0

C4.3b

(C4.3b) Provide details on the initiatives implemented in the reporting year in the table below.

Initiative category & Initiative type

Energy efficiency in production processes
Machine/equipment replacement

Estimated annual CO2e savings (metric tonnes CO2e)

164.1

Scope(s) or Scope 3 category(ies) where emissions savings occur

Scope 1

Voluntary/Mandatory

Voluntary

Annual monetary savings (unit currency – as specified in C0.4)

1,471,634

Investment required (unit currency – as specified in C0.4)

20,000,000

Payback period

11-15 years

Estimated lifetime of the initiative

6-10 years

Comment

The replacement of older equipment with newer models has improved energy efficiency and reduced energy consumption, which in turn has reduced CO2 emissions. Specifically, the number of boilers at the Tsukuba Plant was reduced and replaced with more efficient ones. This has greatly reduced the amount of gas used, thereby curbing energy use.

Initiative category & Initiative type

Low-carbon energy consumption
Hydropower (capacity unknown)

Estimated annual CO2e savings (metric tonnes CO2e)

3,053.95

Scope(s) or Scope 3 category(ies) where emissions savings occur

Scope 2 (location-based)
Scope 2 (market-based)

Voluntary/Mandatory

Voluntary

Annual monetary savings (unit currency – as specified in C0.4)

0

Investment required (unit currency – as specified in C0.4)

28,691,000

Payback period

No payback

Estimated lifetime of the initiative

6-10 years

Comment

BTN plant in US purchases electricity derived from renewable energy sources under the Renewable Energy Certificate System (RECs). By purchasing approximately 10% of the electricity used at the plant through RECs, the plant is able to reduce CO2 emissions by more than 3,000 tons per year.

Initiative category & Initiative type

Energy efficiency in production processes
Machine/equipment replacement

Estimated annual CO2e savings (metric tonnes CO2e)

283.09

Scope(s) or Scope 3 category(ies) where emissions savings occur

Scope 1

Voluntary/Mandatory

Voluntary

Annual monetary savings (unit currency – as specified in C0.4)

9,562,781

Investment required (unit currency – as specified in C0.4)

100,000,000

Payback period

11-15 years

Estimated lifetime of the initiative

6-10 years

Comment

We renewed the equipment for VOCs used for the combustion of solvent dried after printing at our French plant. The introduction of equipment with higher combustion efficiency than before improved the efficiency of natural gas use by 35%, leading to a reduction in fuel consumption.

Initiative category & Initiative type

Low-carbon energy consumption

Low-carbon electricity mix

Estimated annual CO2e savings (metric tonnes CO2e)

731

Scope(s) or Scope 3 category(ies) where emissions savings occur

Scope 2 (location-based)

Scope 2 (market-based)

Voluntary/Mandatory

Voluntary

Annual monetary savings (unit currency – as specified in C0.4)

0

Investment required (unit currency – as specified in C0.4)

57,256,446

Payback period

No payback

Estimated lifetime of the initiative

6-10 years

Comment

Yamagata Plant in Japan purchases electricity derived from renewable energy sources through the renewable energy certificate program. By purchasing approximately 100% of the electricity used at the plant from renewable energy sources, we are able to reduce CO2 emissions by more than 700 tons per year.

Initiative category & Initiative type

Low-carbon energy consumption
Solar PV

Estimated annual CO2e savings (metric tonnes CO2e)

293

Scope(s) or Scope 3 category(ies) where emissions savings occur

Scope 2 (location-based)
Scope 2 (market-based)

Voluntary/Mandatory

Voluntary

Annual monetary savings (unit currency – as specified in C0.4)

661,804

Investment required (unit currency – as specified in C0.4)

4,412,028

Payback period

No payback

Estimated lifetime of the initiative

16-20 years

Comment

In order to promote the use of renewable energy, we have started operation of a solar power generation facility since September 2022 based on a Power Purchase Agreement (PPA)* at our Sinsakhon Plant in Thailand. This is the first time for Fuji Seal Group to introduce a solar photovoltaic power station under the corporate PPA model. The industrial/commercial roof-mounted solar system, with a total area of 4,746 m2, is expected to generate 1.4 GWh of renewable energy and reduce CO2 emissions by approximately 721 tons per year.

C4.3c

(C4.3c) What methods do you use to drive investment in emissions reduction activities?

Method	Comment
Internal incentives/recognition programs	Ideas specific on energy-saving have been awarded according to management evaluation results
Dedicated budget for low-carbon product R&D	Development of new markets by providing solutions to climate change-related issues is considered as one of our beneficial opportunities. In fiscal 2022, our R & D expenses reached 2.5 billion yen where

	environmental friendly products were researched and developed in all international projects.
--	--

C4.5

(C4.5) Do you classify any of your existing goods and/or services as low-carbon products?

Yes

C4.5a

(C4.5a) Provide details of your products and/or services that you classify as low-carbon products.

Level of aggregation

Product or service

Taxonomy used to classify product(s) or service(s) as low-carbon

No taxonomy used to classify product(s) or service(s) as low carbon

Type of product(s) or service(s)

Other

Other, please specify

The industry's thinnest shrink label and a machine

Description of product(s) or service(s)

We have simultaneously developed the industry's thinnest shrink label and a machine (product name: TLS) that attaches the label to the container at high speed and heat-shrinks it, and offer it as a system. The thickness of the label is less than half that of the average conventional label, which reduces the amount of plastic used by about 50%, thus making a significant contribution to the reduction of CO2 emissions when disposed of by the consumer.

Have you estimated the avoided emissions of this low-carbon product(s) or service(s)

Yes

Methodology used to calculate avoided emissions

Guidelines for Assessing the Contribution of Products to Avoided Greenhouse Gas Emissions (ILCA)

Life cycle stage(s) covered for the low-carbon product(s) or services(s)

Cradle-to-gate

Functional unit used

Usage and disposal of film (resin)

Reference product/service or baseline scenario used

Shrink labels with the thickness that have been sold most

Life cycle stage(s) covered for the reference product/service or baseline scenario

Cradle-to-gate

Estimated avoided emissions (metric tons CO₂e per functional unit) compared to reference product/service or baseline scenario

3.52

Explain your calculation of avoided emissions, including any assumptions

Since the thickness of the film is reduced by 50% compared to normal film, the amount of resin used per unit area is also reduced by 50%. Based on this scenario, we have estimated the contribution to CO emission coefficients using publicly available secondary data for both scenarios. Emission factors are taken from the Chemical Economics Research Institute/Research Report on Energy Analysis of Basic Materials, September 1993. As additional energy due to film production, 0.5 kg-CO₂eq/kg is added to the reference figure for PET resin for bottles.

Revenue generated from low-carbon product(s) or service(s) as % of total revenue in the reporting year

6.68

C5. Emissions methodology

C5.1

(C5.1) Is this your first year of reporting emissions data to CDP?

No

C5.1a

(C5.1a) Has your organization undergone any structural changes in the reporting year, or are any previous structural changes being accounted for in this disclosure of emissions data?

Row 1

Has there been a structural change?

No

C5.1b

(C5.1b) Has your emissions accounting methodology, boundary, and/or reporting year definition changed in the reporting year?

Change(s) in methodology, boundary, and/or reporting year definition?	
Row 1	No

C5.2

(C5.2) Provide your base year and base year emissions.

Scope 1

Base year start

April 1, 2017

Base year end

March 31, 2018

Base year emissions (metric tons CO2e)

45,186

Comment

CO2 emission in fiscal 2017

Scope 2 (location-based)

Base year start

April 1, 2017

Base year end

March 31, 2018

Base year emissions (metric tons CO2e)

92,993

Comment

CO2 emission in fiscal 2017

Scope 2 (market-based)

Base year start

April 1, 2017

Base year end

March 31, 2018

Base year emissions (metric tons CO2e)

87,332

Comment

The data for Germany, France, Poland, the Netherlands and Vietnam use location-based emission factors.

Scope 3 category 1: Purchased goods and services

Base year start

April 1, 2017

Base year end

March 31, 2018

Base year emissions (metric tons CO2e)

437,656

Comment

Scope 3 category 2: Capital goods

Base year start

April 1, 2017

Base year end

March 31, 2018

Base year emissions (metric tons CO2e)

21,496

Comment

Scope 3 category 3: Fuel-and-energy-related activities (not included in Scope 1 or 2)

Base year start

April 1, 2017

Base year end

March 31, 2018

Base year emissions (metric tons CO2e)

12,171

Comment

Scope 3 category 4: Upstream transportation and distribution

Base year start

Base year end

Base year emissions (metric tons CO2e)

Comment

We will set up a system to calculate this category in Scope3 from next year.

Scope 3 category 5: Waste generated in operations

Base year start

April 1, 2017

Base year end

March 31, 2018

Base year emissions (metric tons CO2e)

19,816

Comment

Scope 3 category 6: Business travel

Base year start

April 1, 2017

Base year end

March 31, 2018

Base year emissions (metric tons CO2e)

584

Comment

Scope 3 category 7: Employee commuting

Base year start

April 1, 2017

Base year end

March 31, 2018

Base year emissions (metric tons CO2e)

1,954

Comment

Scope 3 category 8: Upstream leased assets

Base year start

Base year end

Base year emissions (metric tons CO₂e)

Comment

Upstream leased assets include office equipment (copiers and PCs) under lease agreements, but emissions from their electricity consumption are not included in this category because they are included in Scope 1 and 2.

Scope 3 category 9: Downstream transportation and distribution

Base year start

Base year end

Base year emissions (metric tons CO₂e)

Comment

We will set up a system to calculate this category in Scope3 from next year.

Scope 3 category 10: Processing of sold products

Base year start

Base year end

Base year emissions (metric tons CO₂e)

Comment

Shrink labels would require further processes at customer site; therefore, they can be regarded as intermediate products for this category, but they are not included because they are accounted for category 11.

Scope 3 category 11: Use of sold products

Base year start

April 1, 2017

Base year end

March 31, 2018

Base year emissions (metric tons CO₂e)

225,750

Comment

Scope 3 category 12: End of life treatment of sold products

Base year start

April 1, 2017

Base year end

March 31, 2018

Base year emissions (metric tons CO₂e)

81,184

Comment

Scope 3 category 13: Downstream leased assets

Base year start

April 1, 2017

Base year end

March 31, 2018

Base year emissions (metric tons CO₂e)

533

Comment

Scope 3 category 14: Franchises

Base year start

Base year end

Base year emissions (metric tons CO₂e)

Comment

We do not have any form of franchise in our business.

Scope 3 category 15: Investments

Base year start

Base year end

Base year emissions (metric tons CO₂e)

Comment

We do not conduct project financing or investment with stock or security.

Scope 3: Other (upstream)

Base year start

Base year end

Base year emissions (metric tons CO2e)

Comment

Scope 3: Other (downstream)

Base year start

Base year end

Base year emissions (metric tons CO2e)

Comment

C5.3

(C5.3) Select the name of the standard, protocol, or methodology you have used to collect activity data and calculate emissions.

Japan Ministry of the Environment, Law Concerning the Promotion of the Measures to Cope with Global Warming, Superseded by Revision of the Act on Promotion of Global Warming Countermeasures (2005 Amendment)

C6. Emissions data

C6.1

(C6.1) What were your organization's gross global Scope 1 emissions in metric tons CO2e?

Reporting year

Gross global Scope 1 emissions (metric tons CO2e)

86,024

Comment

CO2 emission in fisical 2022

C6.2

(C6.2) Describe your organization's approach to reporting Scope 2 emissions.

Row 1

Scope 2, location-based

We are reporting a Scope 2, location-based figure

Scope 2, market-based

We are reporting a Scope 2, market-based figure

Comment

With regard to market-based emission calculations, location-based emission factors are used for the calculation in Germany, France, the Netherlands, Italy ,Vietnam, and Thailand as their market-based emission factors were not available on time.

C6.3

(C6.3) What were your organization's gross global Scope 2 emissions in metric tons CO2e?

Reporting year

Scope 2, location-based

113,140

Scope 2, market-based (if applicable)

103,755

Comment

With regard to market-based emission calculations, location-based emission factors are used for the data in Germany, France, the Netherlands, Italy ,Vietnam, and Thailand as the market-based emission factors were not available on time.

C6.4

(C6.4) Are there any sources (e.g. facilities, specific GHGs, activities, geographies, etc.) of Scope 1, Scope 2 or Scope 3 emissions that are within your selected reporting boundary which are not included in your disclosure?

Yes

C6.4a

(C6.4a) Provide details of the sources of Scope 1, Scope 2, or Scope 3 emissions that are within your selected reporting boundary which are not included in your disclosure.

Source of excluded emissions

Sales offices in US, Europe, ASEAN and India where independent from production factories.

Scope(s) or Scope 3 category(ies)

Scope 1
Scope 2 (location-based)
Scope 2 (market-based)

Relevance of Scope 1 emissions from this source

Emissions are not relevant

Relevance of location-based Scope 2 emissions from this source

Emissions are not relevant

Relevance of market-based Scope 2 emissions from this source

Emissions are not relevant

Relevance of Scope 3 emissions from this source

Date of completion of acquisition or merger

Estimated percentage of total Scope 1+2 emissions this excluded source represents

0

Estimated percentage of total Scope 3 emissions this excluded source represents

Explain why this source is excluded

We have excluded sales offices in US, Europe, ASEAN, and India (independent from production factories) because they employ fewer than 10 people in their offices with negligible CO2 emissions.

Explain how you estimated the percentage of emissions this excluded source represents

The average CO2 emissions per employee were calculated using the emissions from the offices accounted, and multiplied by the number of employees in the offices

excluded. The total CO2 emissions excluded is 0.03% but "0" was entered because it was too small.

C6.5

(C6.5) Account for your organization's gross global Scope 3 emissions, disclosing and explaining any exclusions.

Purchased goods and services

Evaluation status

Relevant, calculated

Emissions in reporting year (metric tons CO2e)

1,091,858.319

Emissions calculation methodology

Supplier-specific method

Spend-based method

Percentage of emissions calculated using data obtained from suppliers or value chain partners

0

Please explain

Using expense schedules recorded in production management database for Japan, a classification of activity (expenses) was made based on the detailed account items and the categorical classification of the suppliers. Next, for each category, the most appropriate monetary emissions intensity from the IDEAv2 database was assigned and CO2 emissions in Japan was then calculated. Furthermore, the global CO2 emissions were calculated based on the ratio of total expenses in Japan to total expenses in the group.

Capital goods

Evaluation status

Relevant, calculated

Emissions in reporting year (metric tons CO2e)

18,023.944

Emissions calculation methodology

Asset-specific method

Percentage of emissions calculated using data obtained from suppliers or value chain partners

0

Please explain

CO2 emissions are calculated by the amount of fixed assets obtained by each group company during the fiscal year from the fixed asset increase/decrease table at the beginning and end of each fiscal year, and by emission intensity provided in the database from The Ministry of the Environment ("Emissions intensity database for calculating the greenhouse gas emissions of an organization through its supply chain (Ver. 3.3)")

Fuel-and-energy-related activities (not included in Scope 1 or 2)

Evaluation status

Relevant, calculated

Emissions in reporting year (metric tons CO2e)

16,637.778

Emissions calculation methodology

Fuel-based method

Percentage of emissions calculated using data obtained from suppliers or value chain partners

0

Please explain

We calculate Category 3 emissions based on the amount of fuel used by each Group company in Scope 1 and the amount of electricity used in Scope 2 for each fiscal year with emission intensity from the IDEA database.

Upstream transportation and distribution

Evaluation status

Relevant, calculated

Emissions in reporting year (metric tons CO2e)

9,192.302

Emissions calculation methodology

Distance-based method

Percentage of emissions calculated using data obtained from suppliers or value chain partners

0

Please explain

CO2 emissions were calculated using the modified ton-kilometer method by tabulating product category classifications, transportation routes for products and other items, and transportation weights recorded in production management database in Japan.

Waste generated in operations

Evaluation status

Relevant, calculated

Emissions in reporting year (metric tons CO₂e)

25,279.557

Emissions calculation methodology

Waste-type-specific method

Percentage of emissions calculated using data obtained from suppliers or value chain partners

0

Please explain

We have asked waste disposal companies to identify the final treatment method of waste discharged from each plant, and use emission factors to calculate the weight of each treatment method.

Business travel

Evaluation status

Relevant, calculated

Emissions in reporting year (metric tons CO₂e)

791.236

Emissions calculation methodology

Average data method

Percentage of emissions calculated using data obtained from suppliers or value chain partners

0

Please explain

Since it is difficult to calculate based on the number of business trip days in the global standard, we use the estimated emission intensity based on the number of employees.

Employee commuting

Evaluation status

Relevant, calculated

Emissions in reporting year (metric tons CO₂e)

2,503.739

Emissions calculation methodology

Average data method

Percentage of emissions calculated using data obtained from suppliers or value chain partners

0

Please explain

Calculations are based on Basic Guidelines by The Ministry of the Environment, using the number of employees x emissions intensity by work type and city size.

Upstream leased assets

Evaluation status

Not relevant, explanation provided

Please explain

Upstream leased assets include office equipment (copiers and PCs) under lease agreements, but emissions from their electricity consumption are not included in this category because they are included in Scope 1 and 2.

Downstream transportation and distribution

Evaluation status

Not relevant, explanation provided

Please explain

For downstream transportation, emissions related to product transportation were taken into account. In Japan, all shipments from the company's own factories are included in Category 4, since the company is always the shipper. Product shipments from customers were excluded from the calculations because the weight ratio of packaging materials is extremely small and it is extremely difficult to calculate the quantities and transportation distances for each product.

Processing of sold products

Evaluation status

Not relevant, explanation provided

Please explain

Shrink labels would require further processes at customer site; therefore, they can be regarded as intermediate products for this category, but they are not included because they are accounted for category 11.

Use of sold products

Evaluation status

Relevant, calculated

Emissions in reporting year (metric tons CO2e)

154,413.06

Emissions calculation methodology

Average product method

Percentage of emissions calculated using data obtained from suppliers or value chain partners

0

Please explain

Lifetime CO2 emissions are estimated for each model based on catalog data and expected service years from the machinery department.

End of life treatment of sold products

Evaluation status

Relevant, calculated

Emissions in reporting year (metric tons CO2e)

123,993.11

Emissions calculation methodology

Waste-type-specific method

Percentage of emissions calculated using data obtained from suppliers or value chain partners

89

Please explain

Calculation was made based on the amount of products shipped, subtracting the use of non-CO2 emitting products such as plant-derived materials. The emission intensity of incineration was used to avoid underestimation of CO2 emissions.

Downstream leased assets

Evaluation status

Relevant, calculated

Emissions in reporting year (metric tons CO2e)

620.021

Emissions calculation methodology

Average product method

Percentage of emissions calculated using data obtained from suppliers or value chain partners

0

Please explain

Annual CO2 emissions for each model were estimated from catalog data and the number of labelers leased, as provided by the machinery department.

Franchises

Evaluation status

Not relevant, explanation provided

Please explain

We do not have any form of franchise in our business.

Investments

Evaluation status

Not relevant, explanation provided

Please explain

We do not conduct project financing or investment with stock or security.

Other (upstream)

Evaluation status

Not relevant, explanation provided

Please explain

We do not consider any other forms of emissions in Scope 3.

Other (downstream)

Evaluation status

Not relevant, explanation provided

Please explain

We do not consider any other forms of emissions in Scope 3.

C6.7

(C6.7) Are carbon dioxide emissions from biogenic carbon relevant to your organization?

No

C6.10

(C6.10) Describe your gross global combined Scope 1 and 2 emissions for the reporting year in metric tons CO₂e per unit currency total revenue and provide any additional intensity metrics that are appropriate to your business operations.

Intensity figure

0.0000098

Metric numerator (Gross global combined Scope 1 and 2 emissions, metric tons CO₂e)

189,774

Metric denominator

unit total revenue

Metric denominator: Unit total

192,862,000,000

Scope 2 figure used

Market-based

% change from previous year

11.01

Direction of change

Decreased

Reason(s) for change

Change in renewable energy consumption

Other emissions reduction activities

Change in output

Change in revenue

Please explain

In FY 2022, we were able to reduce CO2 emissions by a total of 7,551 tons in all regions compared to FY 2021, and we were also able to reduce CO2 emissions per unit of production by 11% compared to FY 2021.

These reductions are due to the day-to-day reduction efforts that have been undertaken in each region in addition to the emission reduction actions reported in C4.3b.

In addition, the use of renewable energy increased significantly in 2022 compared to 2021.

We have also set a new target of net zero emissions by 2050 and plan to set the targets step wise so that each target will be met.

C7. Emissions breakdowns

C7.1

(C7.1) Does your organization break down its Scope 1 emissions by greenhouse gas type?

Yes

C7.1a

(C7.1a) Break down your total gross global Scope 1 emissions by greenhouse gas type and provide the source of each used greenhouse warming potential (GWP).

Greenhouse gas	Scope 1 emissions (metric tons of CO2e)	GWP Reference
CO2	83,598	IPCC Fourth Assessment Report (AR4 - 100 year)

HFCs	5,441	IPCC Fourth Assessment Report (AR4 - 100 year)
Other, please specify CO2 from VOC treatment that was not used as heat source	30,854	IPCC Fourth Assessment Report (AR4 - 100 year)

C7.2

(C7.2) Break down your total gross global Scope 1 emissions by country/area/region.

Country/area/region	Scope 1 emissions (metric tons CO2e)
Japan	24,467
US, Latin America and Caribbean (USLAC)	30,641
Europe	16,446
Other, please specify ASEAN	14,470

C7.3

(C7.3) Indicate which gross global Scope 1 emissions breakdowns you are able to provide.

By facility

C7.3b

(C7.3b) Break down your total gross global Scope 1 emissions by business facility.

Facility	Scope 1 emissions (metric tons CO2e)	Latitude	Longitude
Nabari factory	8,541	34.649673	136.102592
Tukuba factory	12,662	36.013611	140.245988
Yuki factory	2,741	36.275294	139.86695
Yamagata factory	347	38.384513	140.255367
S×S Center (Technical Center)	77	34.736669	135.423824
Nara factory	31	34.546198	135.80233
Bardstown factory	20,302	37.824895	-85.430142
UK factory	2,603	51.36532	0.571919
Poland factory	11,083	52.221972	19.428832
France factory	1,757	47.875583	6.391704
Germany factory	365	48.630235	9.229911
Vietnam factory	2,185	11.107112	106.697588
Netherlands office	613	51.451123	5.795653

Indiana factory	303	38.375989	-85.682223
Mexico factory	10,036	20.786993	-101.335652
Sapporo office	6	43.05858	141.347681
Sinsakhon Factory	4,777	13.550893	100.340123
Bangpoo Factory	7,506	13.536454	100.623406
Samutprakarn Factory	2	13.564156	100.777379
Italy factory	25	45.170202	10.673188
Ube factory	63	34.044394	131.312628

C7.5

(C7.5) Break down your total gross global Scope 2 emissions by country/area/region.

Country/area/region	Scope 2, location-based (metric tons CO2e)	Scope 2, market-based (metric tons CO2e)
Japan	22,125	20,298
Europe	22,067	19,796
US, Latin America and Caribbean (USLAC)	45,576	40,290
Other, please specify ASEAN	23,371	23,371

C7.6

(C7.6) Indicate which gross global Scope 2 emissions breakdowns you are able to provide.

By facility

C7.6b

(C7.6b) Break down your total gross global Scope 2 emissions by business facility.

Facility	Scope 2, location-based (metric tons CO2e)	Scope 2, market-based (metric tons CO2e)
Nabari factory	5,586	4,441
Tukuba factory	10,171	9,525
Yuki factory	2,381	2,230
Nara factory	468	372
Yamagata factory	163	136
Ube factory	2,869	3,204

S×S Center (Technical Center)	352	294
Osaka office	107	68
Nagoya office	4	4
Kyushuu office	5	4
Sapporo office	2	2
Bardstown factory	33,239	30,284
UK factory	2,065	1,488
Poland factory	18,464	16,915
France factory	125	125
Germany factory	1,089	1,089
Vietnam factory	5,377	5,377
Netherland office	295	150
Indiana factory	3,701	1,639
Mexico factory	8,636	8,367
Sinsakhon Factory	6,077	6,077
Bangpoo Factory	11,891	11,891
Samutprakarn Factory	26	26
Italy factory	29	29
(New) Tokyo office	15	15
Matsudo office	1	0
Takegawa office	2	2

C7.7

(C7.7) Is your organization able to break down your emissions data for any of the subsidiaries included in your CDP response?

Yes

C7.7a

(C7.7a) Break down your gross Scope 1 and Scope 2 emissions by subsidiary.

Subsidiary name

Fuji Seal, Inc.

Primary activity

Other containers & packaging

Select the unique identifier(s) you are able to provide for this subsidiary

No unique identifier

ISIN code – bond

ISIN code – equity

CUSIP number

Ticker symbol

SEDOL code

LEI number

Other unique identifier

Scope 1 emissions (metric tons CO₂e)

23,980

Scope 2, location-based emissions (metric tons CO₂e)

18,711

Scope 2, market-based emissions (metric tons CO₂e)

16,642

Comment

The main business activities include planning, proposal, development, manufacture and sales of packaging systems, mainly with shrink labels, pressure sensitive labels, spouted pouches and packaging machinery.

Subsidiary name

Fuji Tack, Inc.

Primary activity

Other containers & packaging

Select the unique identifier(s) you are able to provide for this subsidiary

No unique identifier

ISIN code – bond

ISIN code – equity

CUSIP number

Ticker symbol

SEDOL code

LEI number

Other unique identifier

Scope 1 emissions (metric tons CO₂e)

0

Scope 2, location-based emissions (metric tons CO₂e)

12

Scope 2, market-based emissions (metric tons CO₂e)

8

Comment

The main business is the sale of pressure sensitive labels, most of which are supplied to Fuji Seal, Inc.

Subsidiary name

Fuji Astec, Inc.

Primary activity

Industrial machinery

Select the unique identifier(s) you are able to provide for this subsidiary

No unique identifier

ISIN code – bond

ISIN code – equity

CUSIP number

Ticker symbol

SEDOL code

LEI number

Other unique identifier

Scope 1 emissions (metric tons CO₂e)

77

Scope 2, location-based emissions (metric tons CO₂e)

352

Scope 2, market-based emissions (metric tons CO₂e)

294

Comment

The main business includes maintenance services for packaging machinery.

Subsidiary name

Fuji Flex, Inc.

Primary activity

Other containers & packaging

Select the unique identifier(s) you are able to provide for this subsidiary

No unique identifier

ISIN code – bond

ISIN code – equity

CUSIP number

Ticker symbol

SEDOL code

LEI number

Other unique identifier

Scope 1 emissions (metric tons CO2e)

0

Scope 2, location-based emissions (metric tons CO2e)

2

Scope 2, market-based emissions (metric tons CO2e)

2

Comment

The main business includes the manufacturing and sale of spouted pouches, most of which are supplied to Fuji Seal, Inc.

Subsidiary name

Fuji Tack East, Inc.

Primary activity

Other containers & packaging

Select the unique identifier(s) you are able to provide for this subsidiary

No unique identifier

ISIN code – bond

ISIN code – equity

CUSIP number

Ticker symbol

SEDOL code

LEI number

Other unique identifier

Scope 1 emissions (metric tons CO2e)

347

Scope 2, location-based emissions (metric tons CO2e)

163

Scope 2, market-based emissions (metric tons CO₂e)

136

Comment

The main business includes the manufacturing and sale of pressure sensitive labels, most of which are supplied to Fuji Tack, Inc.

Subsidiary name

Fuji Seal West, Inc.

Primary activity

Other containers & packaging

Select the unique identifier(s) you are able to provide for this subsidiary

No unique identifier

ISIN code – bond

ISIN code – equity

CUSIP number

Ticker symbol

SEDOL code

LEI number

Other unique identifier

Scope 1 emissions (metric tons CO₂e)

63

Scope 2, location-based emissions (metric tons CO₂e)

2,869

Scope 2, market-based emissions (metric tons CO₂e)

3,204

Comment

The main business includes the manufacturing and sale of pressure sensitive labels and spouted pouches, most of which are supplied to Fuji Tack, Inc. and Fuji Flex, Inc.

Subsidiary name

Fuji Seal Business Associe, Inc.

Primary activity

Other containers & packaging

Select the unique identifier(s) you are able to provide for this subsidiary

No unique identifier

ISIN code – bond

ISIN code – equity

CUSIP number

Ticker symbol

SEDOL code

LEI number

Other unique identifier

Scope 1 emissions (metric tons CO2e)

0

Scope 2, location-based emissions (metric tons CO2e)

8

Scope 2, market-based emissions (metric tons CO2e)

6

Comment

The main business is the provision of administrative services to group companies in Japan.

Subsidiary name

American Fuji Seal, Inc.

Primary activity

Other containers & packaging

Select the unique identifier(s) you are able to provide for this subsidiary

No unique identifier

ISIN code – bond

ISIN code – equity

CUSIP number

Ticker symbol

SEDOL code

LEI number

Other unique identifier

Scope 1 emissions (metric tons CO2e)

20,568

Scope 2, location-based emissions (metric tons CO2e)

36,496

Scope 2, market-based emissions (metric tons CO2e)

31,726

Comment

The main business includes the manufacturing and sale of shrink labels, pressure sensitive labels, spouted pouches, and various packaging materials.

Subsidiary name

American Fuji Technical Services, Inc.

Primary activity

Industrial machinery

Select the unique identifier(s) you are able to provide for this subsidiary

No unique identifier

ISIN code – bond

ISIN code – equity

CUSIP number

Ticker symbol

SEDOL code

LEI number

Other unique identifier

Scope 1 emissions (metric tons CO₂e)

36

Scope 2, location-based emissions (metric tons CO₂e)

444

Scope 2, market-based emissions (metric tons CO₂e)

197

Comment

The main business includes the manufacturing, sale, and maintenance services of packaging machinery.

Subsidiary name

Fuji Seal Packaging de Mexico, S.A. de C.V.

Primary activity

Other containers & packaging

Select the unique identifier(s) you are able to provide for this subsidiary

No unique identifier

ISIN code – bond

ISIN code – equity

CUSIP number

Ticker symbol

SEDOL code

LEI number

Other unique identifier

Scope 1 emissions (metric tons CO₂e)

10,036

Scope 2, location-based emissions (metric tons CO₂e)

8,636

Scope 2, market-based emissions (metric tons CO₂e)

8,367

Comment

The main business includes the manufacturing and sale of shrink labels and various packaging materials.

Subsidiary name

Fuji Seal B.V.

Primary activity

Other containers & packaging

Select the unique identifier(s) you are able to provide for this subsidiary

No unique identifier

ISIN code – bond

ISIN code – equity

CUSIP number

Ticker symbol

SEDOL code

LEI number

Other unique identifier

Scope 1 emissions (metric tons CO2e)

0

Scope 2, location-based emissions (metric tons CO2e)

0

Scope 2, market-based emissions (metric tons CO2e)

0

Comment

Fuji Seal B.V. is excluded because its emissions are reported in Fuji Seal Europe B.V. The company is a regional holding company in the European region, and holds shares in and supports and manages the business activities of European group companies. Its main business is the sale of shrink labels, spouted pouches, and various packaging materials.

Subsidiary name

Fuji Seal Europe Ltd.

Primary activity

Other containers & packaging

Select the unique identifier(s) you are able to provide for this subsidiary

No unique identifier

ISIN code – bond

ISIN code – equity

CUSIP number

Ticker symbol

SEDOL code

LEI number

Other unique identifier

Scope 1 emissions (metric tons CO2e)

2,603

Scope 2, location-based emissions (metric tons CO2e)

2,065

Scope 2, market-based emissions (metric tons CO2e)

1,488

Comment

The main business includes the manufacturing and sale of shrink labels and various packaging materials, most of which are supplied to Fuji Seal Europe S.A.S.

Subsidiary name

Fuji Seal France S.A.S.

Primary activity

Other containers & packaging

Select the unique identifier(s) you are able to provide for this subsidiary

No unique identifier

ISIN code – bond

ISIN code – equity

CUSIP number

Ticker symbol

SEDOL code

LEI number

Other unique identifier

Scope 1 emissions (metric tons CO2e)

1,757

Scope 2, location-based emissions (metric tons CO2e)

125

Scope 2, market-based emissions (metric tons CO₂e)

125

Comment

The main business includes the manufacturing and sale of shrink labels and various packaging materials, most of which are supplied to Fuji Seal Europe S.A.S.

Subsidiary name

Fuji Seal Poland Sp.zo.o.

Primary activity

Other containers & packaging

Select the unique identifier(s) you are able to provide for this subsidiary

ISIN code – bond

ISIN code – equity

CUSIP number

Ticker symbol

SEDOL code

LEI number

Other unique identifier

Scope 1 emissions (metric tons CO₂e)

11,083

Scope 2, location-based emissions (metric tons CO₂e)

18,464

Scope 2, market-based emissions (metric tons CO₂e)

16,915

Comment

The main business includes the manufacturing and sale of shrink labels and pressure sensitive labels, most of which are supplied to Fuji Seal Europe S.A.S.

Subsidiary name

Fuji Seal Europe B.V.

Primary activity

Industrial machinery

Select the unique identifier(s) you are able to provide for this subsidiary

No unique identifier

ISIN code – bond

ISIN code – equity

CUSIP number

Ticker symbol

SEDOL code

LEI number

Other unique identifier

Scope 1 emissions (metric tons CO₂e)

613

Scope 2, location-based emissions (metric tons CO₂e)

295

Scope 2, market-based emissions (metric tons CO₂e)

150

Comment

The main business includes the manufacturing, sale, and maintenance services of packaging machinery.

Subsidiary name

Fuji Seal Europe S.A.S.

Primary activity

Other containers & packaging

Select the unique identifier(s) you are able to provide for this subsidiary

No unique identifier

ISIN code – bond

ISIN code – equity

CUSIP number

Ticker symbol

SEDOL code

LEI number

Other unique identifier

Scope 1 emissions (metric tons CO₂e)

0

Scope 2, location-based emissions (metric tons CO₂e)

0

Scope 2, market-based emissions (metric tons CO₂e)

0

Comment

The main line of business is the sale of shrink labels and various packaging materials. Since this subsidiary has less than 10 employees working in the office and almost no CO₂ emissions, it has been excluded as having no relevance to these emissions.

Subsidiary name

Fuji Seal Iberia, S.L.U.

Primary activity

Other containers & packaging

Select the unique identifier(s) you are able to provide for this subsidiary

No unique identifier

ISIN code – bond

ISIN code – equity

CUSIP number

Ticker symbol

SEDOL code

LEI number

Other unique identifier

Scope 1 emissions (metric tons CO₂e)

0

Scope 2, location-based emissions (metric tons CO₂e)

0

Scope 2, market-based emissions (metric tons CO₂e)

0

Comment

Since this subsidiary has less than 10 employees working in the office and almost no CO₂ emissions, it has been excluded as having no relevance to these emissions.

Subsidiary name

Fuji Seal Switzerland AG

Primary activity

Industrial machinery

Select the unique identifier(s) you are able to provide for this subsidiary

No unique identifier

ISIN code – bond

ISIN code – equity

CUSIP number

Ticker symbol

SEDOL code

LEI number

Other unique identifier

Scope 1 emissions (metric tons CO2e)

0

Scope 2, location-based emissions (metric tons CO2e)

0

Scope 2, market-based emissions (metric tons CO2e)

0

Comment

The main business is maintenance services for packaging machinery. Since this subsidiary has less than 10 employees working in the office and almost no CO2 emissions, it has been excluded as having no relevance to these emissions.

Subsidiary name

Fuji Seal Germany GmbH

Primary activity

Other containers & packaging

Select the unique identifier(s) you are able to provide for this subsidiary

No unique identifier

ISIN code – bond

ISIN code – equity

CUSIP number

Ticker symbol

SEDOL code

LEI number

Other unique identifier

Scope 1 emissions (metric tons CO2e)

365

Scope 2, location-based emissions (metric tons CO2e)

1,089

Scope 2, market-based emissions (metric tons CO2e)

1,089

Comment

The main business includes the manufacturing and sale of pressure sensitive labels and packaging machinery.

Subsidiary name

Fuji Seal Italy S.r.l.

Primary activity

Industrial machinery

Select the unique identifier(s) you are able to provide for this subsidiary

No unique identifier

ISIN code – bond

ISIN code – equity

CUSIP number

Ticker symbol

SEDOL code

LEI number

Other unique identifier

Scope 1 emissions (metric tons CO2e)

25

Scope 2, location-based emissions (metric tons CO₂e)

29

Scope 2, market-based emissions (metric tons CO₂e)

29

Comment

The main business includes the manufacturing and sale of packaging machinery.

Subsidiary name

Fuji Seal Packaging (Thailand) Co., Ltd

Primary activity

Other containers & packaging

Select the unique identifier(s) you are able to provide for this subsidiary

No unique identifier

ISIN code – bond

ISIN code – equity

CUSIP number

Ticker symbol

SEDOL code

LEI number

Other unique identifier

Scope 1 emissions (metric tons CO₂e)

12,283

Scope 2, location-based emissions (metric tons CO₂e)

17,968

Scope 2, market-based emissions (metric tons CO₂e)

17,968

Comment

The main business includes the manufacturing and sale of shrink labels, spouted pouches, and various packaging materials, as well as the sale of packaging machinery.

Subsidiary name

Fuji Seal Engineering Co., Ltd.

Primary activity

Industrial machinery

Select the unique identifier(s) you are able to provide for this subsidiary

No unique identifier

ISIN code – bond

ISIN code – equity

CUSIP number

Ticker symbol

SEDOL code

LEI number

Other unique identifier

Scope 1 emissions (metric tons CO2e)

2

Scope 2, location-based emissions (metric tons CO2e)

26

Scope 2, market-based emissions (metric tons CO2e)

26

Comment

The main business activities are sales of packaging machinery, maintenance services and assembly operations.

Subsidiary name

Fuji Seal Vietnam Co., Ltd.

Primary activity

Other containers & packaging

Select the unique identifier(s) you are able to provide for this subsidiary

No unique identifier

ISIN code – bond

ISIN code – equity

CUSIP number

Ticker symbol

SEDOL code

LEI number

Other unique identifier

Scope 1 emissions (metric tons CO₂e)

2,185

Scope 2, location-based emissions (metric tons CO₂e)

5,377

Scope 2, market-based emissions (metric tons CO₂e)

5,377

Comment

The main business includes the manufacturing and sale of shrink labels, spouted pouches, and various packaging materials.

Subsidiary name

PT. Fuji Seal Indonesia

Primary activity

Other containers & packaging

Select the unique identifier(s) you are able to provide for this subsidiary

No unique identifier

ISIN code – bond

ISIN code – equity

CUSIP number

Ticker symbol

SEDOL code

LEI number

Other unique identifier

Scope 1 emissions (metric tons CO₂e)

0

Scope 2, location-based emissions (metric tons CO₂e)

0

Scope 2, market-based emissions (metric tons CO₂e)

0

Comment

The main business is the sale of shrink labels, various packaging materials and packaging machinery. Since this subsidiary has less than 10 employees working in the office and almost no CO₂ emissions, it has been excluded as having no relevance to these emissions.

Subsidiary name

Fuji Seal India Pvt Ltd.

Primary activity

Industrial machinery

Select the unique identifier(s) you are able to provide for this subsidiary

No unique identifier

ISIN code – bond

ISIN code – equity

CUSIP number

Ticker symbol

SEDOL code

LEI number

Other unique identifier

Scope 1 emissions (metric tons CO2e)

0

Scope 2, location-based emissions (metric tons CO2e)

0

Scope 2, market-based emissions (metric tons CO2e)

0

Comment

The main business is the sale of various packaging materials and packaging machinery, as well as maintenance services for packaging machinery. Since this subsidiary has less than 10 employees working in the office and almost no CO2 emissions, it has been excluded as having no relevance to these emissions.

C7.9

(C7.9) How do your gross global emissions (Scope 1 and 2 combined) for the reporting year compare to those of the previous reporting year?

Decreased

C7.9a

(C7.9a) Identify the reasons for any change in your gross global emissions (Scope 1 and 2 combined), and for each of them specify how your emissions compare to the previous year.

	Change in emissions (metric tons CO2e)	Direction of change in emissions	Emissions value (percentage)	Please explain calculation

Change in renewable energy consumption	4,156	Increased	2.18	The use of renewable energy has increased significantly due to PPAs in the ASEAN region, RECs in the Americas, and the introduction of renewable energy plans in Japan. Since the total amount used is 4156 t-CO2eq, the ratio of emissions is calculated as follows. $4156 \div 189778 \times 100 = 2.18 \%$.
Other emissions reduction activities	447	Decreased	0.24	The total emission reductions from the emission reduction activities listed in C4.3b, both implemented and in progress, excluding projects related to renewable energy, amounted to 447 t-CO2eq. Therefore, the percentage of emissions is calculated as follows. $447 \div 189778 \times 100 = 0.24 \%$.
Divestment				
Acquisitions				
Mergers				
Change in output				
Change in methodology				
Change in boundary				
Change in physical operating conditions				
Unidentified				
Other				

C7.9b

(C7.9b) Are your emissions performance calculations in C7.9 and C7.9a based on a location-based Scope 2 emissions figure or a market-based Scope 2 emissions figure?

Market-based

C8. Energy

C8.1

(C8.1) What percentage of your total operational spend in the reporting year was on energy?

More than 5% but less than or equal to 10%

C8.2

(C8.2) Select which energy-related activities your organization has undertaken.

	Indicate whether your organization undertook this energy-related activity in the reporting year
Consumption of fuel (excluding feedstocks)	Yes
Consumption of purchased or acquired electricity	Yes
Consumption of purchased or acquired heat	No
Consumption of purchased or acquired steam	No
Consumption of purchased or acquired cooling	Yes
Generation of electricity, heat, steam, or cooling	Yes

C8.2a

(C8.2a) Report your organization's energy consumption totals (excluding feedstocks) in MWh.

	Heating value	MWh from renewable sources	MWh from non-renewable sources	Total (renewable and non-renewable) MWh
Consumption of fuel (excluding feedstock)	HHV (higher heating value)	0	247,720	247,720
Consumption of purchased or acquired electricity		6,577	179,879	186,456

Consumption of purchased or acquired cooling		0	74	74
Consumption of self-generated non-fuel renewable energy		0		0
Total energy consumption		6,577	427,651	434,228

C8.2b

(C8.2b) Select the applications of your organization’s consumption of fuel.

	Indicate whether your organization undertakes this fuel application
Consumption of fuel for the generation of electricity	Yes
Consumption of fuel for the generation of heat	Yes
Consumption of fuel for the generation of steam	Yes
Consumption of fuel for the generation of cooling	Yes
Consumption of fuel for co-generation or tri-generation	No

C8.2c

(C8.2c) State how much fuel in MWh your organization has consumed (excluding feedstocks) by fuel type.

Sustainable biomass

Heating value

Unable to confirm heating value

Total fuel MWh consumed by the organization

0

MWh fuel consumed for self-generation of electricity

0

MWh fuel consumed for self-generation of heat

0

MWh fuel consumed for self-generation of steam

0

MWh fuel consumed for self-generation of cooling

0

Comment

No sustainable biomass is used

Other biomass

Heating value

Unable to confirm heating value

Total fuel MWh consumed by the organization

0

MWh fuel consumed for self-generation of electricity

0

MWh fuel consumed for self-generation of heat

0

MWh fuel consumed for self-generation of steam

0

MWh fuel consumed for self-generation of cooling

0

Comment

No biomass is used

Other renewable fuels (e.g. renewable hydrogen)

Heating value

Unable to confirm heating value

Total fuel MWh consumed by the organization

0

MWh fuel consumed for self-generation of electricity

0

MWh fuel consumed for self-generation of heat

0

MWh fuel consumed for self-generation of steam

0

MWh fuel consumed for self-generation of cooling

0

Comment

No other sustainable fuels are used

Coal

Heating value

Unable to confirm heating value

Total fuel MWh consumed by the organization

0

MWh fuel consumed for self-generation of electricity

0

MWh fuel consumed for self-generation of heat

0

MWh fuel consumed for self-generation of steam

0

MWh fuel consumed for self-generation of cooling

0

Comment

No coal is used

Oil

Heating value

HHV

Total fuel MWh consumed by the organization

2,420

MWh fuel consumed for self-generation of electricity

173

MWh fuel consumed for self-generation of heat

10

MWh fuel consumed for self-generation of steam

2,238

MWh fuel consumed for self-generation of cooling

0

Comment

Gasoline, diesel, kerosene, and heavy oil are included.

Gas

Heating value

HHV

Total fuel MWh consumed by the organization

177,540

MWh fuel consumed for self-generation of electricity

13,818

MWh fuel consumed for self-generation of heat

0

MWh fuel consumed for self-generation of steam

163,722

MWh fuel consumed for self-generation of cooling

0

Comment

Natural gas, LPG and city gas are included.

Other non-renewable fuels (e.g. non-renewable hydrogen)

Heating value

HHV

Total fuel MWh consumed by the organization

67,760

MWh fuel consumed for self-generation of electricity

0

MWh fuel consumed for self-generation of heat

0

MWh fuel consumed for self-generation of steam

67,760

MWh fuel consumed for self-generation of cooling

0

Comment

Volatile organic compounds (VOCs) from printing presses are included.

Total fuel

Heating value

HHV

Total fuel MWh consumed by the organization

247,698

MWh fuel consumed for self-generation of electricity

13,969

MWh fuel consumed for self-generation of heat

67,770

MWh fuel consumed for self-generation of steam

165,960

MWh fuel consumed for self-generation of cooling

0

Comment

C8.2d

(C8.2d) Provide details on the electricity, heat, steam, and cooling your organization has generated and consumed in the reporting year.

	Total Gross generation (MWh)	Generation that is consumed by the organization (MWh)	Gross generation from renewable sources (MWh)	Generation from renewable sources that is consumed by the organization (MWh)
Electricity	20,568	13,991	6,577	6,577
Heat	10	10	0	0
Steam	233,720	233,720	0	0
Cooling	0	0	0	0

C8.2e

(C8.2e) Provide details on the electricity, heat, steam, and/or cooling amounts that were accounted for at a zero or near-zero emission factor in the market-based Scope 2 figure reported in C6.3.

Country/area of low-carbon energy consumption

Japan

Sourcing method

Retail supply contract with an electricity supplier (retail green electricity)

Energy carrier

Electricity

Low-carbon technology type

Renewable energy mix, please specify

Electricity has been purchased under a renewable energy plan with virtually zero CO2 emissions by combining electricity from a power source configuration (e.g. natural gas generation) with non-fossil certificates designated for renewable energy.

Low-carbon energy consumed via selected sourcing method in the reporting year (MWh)

1,457

Tracking instrument used

GEC

Country/area of origin (generation) of the low-carbon energy or energy attribute

Japan

Are you able to report the commissioning or re-powering year of the energy generation facility?

No

Commissioning year of the energy generation facility (e.g. date of first commercial operation or repowering)

Comment

The Tokyo Office and Yamagata Plant have made contracts for the purchase of electricity derived from renewable energy sources with zero CO2 emissions.

Country/area of low-carbon energy consumption

United States of America

Sourcing method

Unbundled procurement of energy attribute certificates (EACs)

Energy carrier

Electricity

Low-carbon technology type

Hydropower (capacity unknown)

Low-carbon energy consumed via selected sourcing method in the reporting year (MWh)

4,022

Tracking instrument used

US-REC

Country/area of origin (generation) of the low-carbon energy or energy attribute

United States of America

Are you able to report the commissioning or re-powering year of the energy generation facility?

No

Commissioning year of the energy generation facility (e.g. date of first commercial operation or repowering)

Comment

Bardstown plant in US purchases electricity derived from renewable energy sources under the Renewable Energy Certificate System (RECs). By purchasing approximately 10% of the electricity used at the plant through RECs, the plant is able to reduce CO₂ emissions by more than 3,000 tons per year.

Country/area of low-carbon energy consumption

Thailand

Sourcing method

Purchase from an on-site installation owned by a third party (on-site PPA)

Energy carrier

Electricity

Low-carbon technology type

Solar

Low-carbon energy consumed via selected sourcing method in the reporting year (MWh)

489.5

Tracking instrument used

Contract

Country/area of origin (generation) of the low-carbon energy or energy attribute

Thailand

Are you able to report the commissioning or re-powering year of the energy generation facility?

No

Commissioning year of the energy generation facility (e.g. date of first commercial operation or repowering)

Comment

In order to promote the use of renewable energy, we have started operation of a solar power generation facility since September 2022 based on a Power Purchase Agreement (PPA)* at our Sinsakhon Plant in Thailand. This is the first time for Fuji Seal Group to introduce a solar photovoltaic power station under the corporate PPA model. The

industrial/commercial
roof-mounted solar system, with a total area of 4,746 m², is expected to generate 1.4 GWh of renewable energy and reduce CO₂ emissions by approximately 721 tons per year.

C8.2g

(C8.2g) Provide a breakdown by country/area of your non-fuel energy consumption in the reporting year.

Country/area

Japan

Consumption of purchased electricity (MWh)

47,273

Consumption of self-generated electricity (MWh)

0

Consumption of purchased heat, steam, and cooling (MWh)

74

Consumption of self-generated heat, steam, and cooling (MWh)

90,858

Total non-fuel energy consumption (MWh) [Auto-calculated]

138,205

Country/area

United States of America

Consumption of purchased electricity (MWh)

63,140

Consumption of self-generated electricity (MWh)

0

Consumption of purchased heat, steam, and cooling (MWh)

0

Consumption of self-generated heat, steam, and cooling (MWh)

82,690

Total non-fuel energy consumption (MWh) [Auto-calculated]

145,830

Country/area

Mexico

Consumption of purchased electricity (MWh)

4,662

Consumption of self-generated electricity (MWh)

0

Consumption of purchased heat, steam, and cooling (MWh)

0

Consumption of self-generated heat, steam, and cooling (MWh)

1,067

Total non-fuel energy consumption (MWh) [Auto-calculated]

5,729

Country/area

Germany

Consumption of purchased electricity (MWh)

2,322

Consumption of self-generated electricity (MWh)

13

Consumption of purchased heat, steam, and cooling (MWh)

0

Consumption of self-generated heat, steam, and cooling (MWh)

1,000

Total non-fuel energy consumption (MWh) [Auto-calculated]

3,335

Country/area

Italy

Consumption of purchased electricity (MWh)

88

Consumption of self-generated electricity (MWh)

0

Consumption of purchased heat, steam, and cooling (MWh)

0

Consumption of self-generated heat, steam, and cooling (MWh)

118

Total non-fuel energy consumption (MWh) [Auto-calculated]

206

Country/area

France

Consumption of purchased electricity (MWh)

2,666

Consumption of self-generated electricity (MWh)

0

Consumption of purchased heat, steam, and cooling (MWh)

0

Consumption of self-generated heat, steam, and cooling (MWh)

4,403

Total non-fuel energy consumption (MWh) [Auto-calculated]

7,069

Country/area

United Kingdom of Great Britain and Northern Ireland

Consumption of purchased electricity (MWh)

46,404

Consumption of self-generated electricity (MWh)

0

Consumption of purchased heat, steam, and cooling (MWh)

0

Consumption of self-generated heat, steam, and cooling (MWh)

104,226

Total non-fuel energy consumption (MWh) [Auto-calculated]

150,630

Country/area

Poland

Consumption of purchased electricity (MWh)

21,826

Consumption of self-generated electricity (MWh)

0

Consumption of purchased heat, steam, and cooling (MWh)

0

Consumption of self-generated heat, steam, and cooling (MWh)

36,036

Total non-fuel energy consumption (MWh) [Auto-calculated]

57,862

Country/area

Netherlands

Consumption of purchased electricity (MWh)

646

Consumption of self-generated electricity (MWh)

0

Consumption of purchased heat, steam, and cooling (MWh)

0

Consumption of self-generated heat, steam, and cooling (MWh)

1,886

Total non-fuel energy consumption (MWh) [Auto-calculated]

2,532

Country/area

Viet Nam

Consumption of purchased electricity (MWh)

5,977

Consumption of self-generated electricity (MWh)

0

Consumption of purchased heat, steam, and cooling (MWh)

0

Consumption of self-generated heat, steam, and cooling (MWh)

3,018

Total non-fuel energy consumption (MWh) [Auto-calculated]

8,995

Country/area

Thailand

Consumption of purchased electricity (MWh)

30,549

Consumption of self-generated electricity (MWh)

0

Consumption of purchased heat, steam, and cooling (MWh)

0

Consumption of self-generated heat, steam, and cooling (MWh)

20,415

Total non-fuel energy consumption (MWh) [Auto-calculated]

50,964

C9. Additional metrics

C9.1

(C9.1) Provide any additional climate-related metrics relevant to your business.

C10. Verification

C10.1

(C10.1) Indicate the verification/assurance status that applies to your reported emissions.

	Verification/assurance status
Scope 1	Third-party verification or assurance process in place
Scope 2 (location-based or market-based)	Third-party verification or assurance process in place
Scope 3	Third-party verification or assurance process in place

C10.1a

(C10.1a) Provide further details of the verification/assurance undertaken for your Scope 1 emissions, and attach the relevant statements.

Verification or assurance cycle in place

Annual process

Status in the current reporting year

Complete

Type of verification or assurance

Limited assurance

Attach the statement

 検証意見書（英文）.pdf

Page/ section reference

Page 1 to 2: A letter of opinion from SGS regarding emission verification is attached.

Relevant standard

ISO14064-3

Proportion of reported emissions verified (%)

60

C10.1b

(C10.1b) Provide further details of the verification/assurance undertaken for your Scope 2 emissions and attach the relevant statements.

Scope 2 approach

Scope 2 location-based

Verification or assurance cycle in place

Annual process

Status in the current reporting year

Complete

Type of verification or assurance

Limited assurance

Attach the statement

 検証意見書（英文）.pdf

Page/ section reference

Page 1 to 2: A letter of opinion from SGS regarding emission verification is attached.

Relevant standard

ISO14064-3

Proportion of reported emissions verified (%)

100

Scope 2 approach

Scope 2 market-based

Verification or assurance cycle in place

Annual process

Status in the current reporting year

Complete

Type of verification or assurance

Limited assurance

Attach the statement

 検証意見書（英文）.pdf

Page/ section reference

Page 1 to 2: A letter of opinion from SGS regarding emission verification is attached.

Relevant standard

ISO14064-3

Proportion of reported emissions verified (%)

100

C10.1c

(C10.1c) Provide further details of the verification/assurance undertaken for your Scope 3 emissions and attach the relevant statements.

Scope 3 category

Scope 3: Business travel

Verification or assurance cycle in place

Annual process

Status in the current reporting year

Complete

Type of verification or assurance

Limited assurance

Attach the statement

 検証意見書（英文）.pdf

Page/section reference

Page 1 to 2: A letter of opinion from SGS regarding emission verification is attached.

Relevant standard

ISO14064-3

Proportion of reported emissions verified (%)

100

Scope 3 category

Scope 3: Purchased goods and services

Verification or assurance cycle in place

Annual process

Status in the current reporting year

Complete

Type of verification or assurance

Limited assurance

Attach the statement

📎 検証意見書 (英文) .pdf

Page/section reference

Page 1 to 2: A letter of opinion from SGS regarding emission verification is attached.

Relevant standard

ISO14064-3

Proportion of reported emissions verified (%)

53

C10.2

(C10.2) Do you verify any climate-related information reported in your CDP disclosure other than the emissions figures reported in C6.1, C6.3, and C6.5?

No, but we are actively considering verifying within the next two years

C11. Carbon pricing

C11.1

(C11.1) Are any of your operations or activities regulated by a carbon pricing system (i.e. ETS, Cap & Trade or Carbon Tax)?

Yes

C11.1a

(C11.1a) Select the carbon pricing regulation(s) which impacts your operations.

Japan carbon tax

C11.1c

(C11.1c) Complete the following table for each of the tax systems you are regulated by.

Japan carbon tax

Period start date

April 1, 2022

Period end date

March 31, 2023

% of total Scope 1 emissions covered by tax

28

Total cost of tax paid

7,070,963

Comment

Global Warming Tax (formerly oil and coal tax) is JPY289/t-CO₂e in 2022. Among Scope 1 emissions in Japan, the tax is levied on the energy-origin portion, 24,467 tons in 2022. Therefore, 24,467 x 289 = JPY7,070,963 was paid.

C11.1d

(C11.1d) What is your strategy for complying with the systems you are regulated by or anticipate being regulated by?

We have set a goal of 6% reduction per unit of sales for GHG emissions Scope 1 + 2 by FY2023, and are promoting reduction activities with the ultimate goal of achieving net zero emissions by 2050. Specifically, in addition to the continuous introduction and renewal of energy-saving equipment, we are soliciting internal applications and implementing them while utilizing an award system in order to stimulate energy-saving activities at the employee level within the company. In addition, since an analysis of the breakdown of emissions within the Group shows that emissions in the U.S. are significant, we have begun procuring renewable energy certificates at the Bardstown plant in the U.S. from FY2022, which will reduce emissions by 10% per year.

C11.2

(C11.2) Has your organization canceled any project-based carbon credits within the reporting year?

No

C11.3

(C11.3) Does your organization use an internal price on carbon?

Yes

C11.3a

(C11.3a) Provide details of how your organization uses an internal price on carbon.

Type of internal carbon price

Shadow price

How the price is determined

Alignment with the price of allowances under an Emissions Trading Scheme
Alignment with the price of a carbon tax

Objective(s) for implementing this internal carbon price

Change internal behavior
Drive energy efficiency
Drive low-carbon investment

Identify and seize low-carbon opportunities
Navigate GHG regulations

Scope(s) covered

Scope 1
Scope 2

Pricing approach used – spatial variance

Uniform

Pricing approach used – temporal variance

Evolutionary

Indicate how you expect the price to change over time

As the time goes by, the price would fluctuate due to its availability of GHG reduction solutions/innovations.

Actual price(s) used – minimum (currency as specified in C0.4 per metric ton CO2e)

12,000

Actual price(s) used – maximum (currency as specified in C0.4 per metric ton CO2e)

15,000

Business decision-making processes this internal carbon price is applied to

Capital expenditure
Procurement

Mandatory enforcement of this internal carbon price within these business decision-making processes

Yes, for some decision-making processes, please specify

The ICP application is limited to a ringi system in Japanese operation where major investment plans are to be approved so that the company can monitor and adjust the ICP level and its scope.

Explain how this internal carbon price has contributed to the implementation of your organization's climate commitments and/or climate transition plan

The application of ICP makes one aware of how much GHG reduction can be made through investment and does favor in ROI calculation to accelerate such investment that could not have been justified without the ICP process.

C12. Engagement

C12.1

(C12.1) Do you engage with your value chain on climate-related issues?

Yes, our suppliers

Yes, our customers/clients

C12.1a

(C12.1a) Provide details of your climate-related supplier engagement strategy.

Type of engagement

Innovation & collaboration (changing markets)

Details of engagement

Run a campaign to encourage innovation to reduce climate impacts on products and services

% of suppliers by number

100

% total procurement spend (direct and indirect)

100

% of supplier-related Scope 3 emissions as reported in C6.5

0

Rationale for the coverage of your engagement

In order to reduce CO2 emissions, we are working on the development of new materials and products in cooperation with suppliers who can reduce environmental impacts. Specifically, we are working more actively with film and ink manufacturers for shrink labels, pressure sensitive labels and spouted pouches to develop new environmentally friendly products. In addition, we are also working to reduce the environmental impact of secondary materials because the market is demanding that we should reduce the environmental impact of our products as a whole. This is why we are collaborating with all of our suppliers.

Impact of engagement, including measures of success

We expect synergetic collaborations with multi-stakeholders to result in CO2 emission reduction in Scope 3. We define a success of collaboration as a realization of specifications that meet target customer's requirements in a timely manner. For example, one of our target markets, beverage manufacturers, demanded a high-speed application machine for thinner flexible labels to achieve CO2 reduction as high as 50% in total. Such high expectations had not been met until we launched the product combination where the thinnest shrink labels in the packaging industry (co-developed with film suppliers) are applied onto beverage containers at higher speeds by our newly developed machines (product name: TLS). With less than half the thickness of conventional labels, both total plastic usage and CO2 emissions can be reduced by 50%, with satisfying customer production demands at the same time. Our combinatorial solution has reduced total plastic usage by 4,287 tons of CO2 in fiscal 2022 both domestically and internationally.

The shrink labels and application machines are being deployed mainly in Japan, where a large quantity of our labels are supplied to the beverage industry, and sales turnover of the labels and application machines increases each year in recognition of our contribution to CO2 reduction.

Comment

Type of engagement

Information collection (understanding supplier behavior)

Details of engagement

Collect GHG emissions data at least annually from suppliers

Collect other climate related information at least annually from suppliers

🗨 In the supplier questionnaire, we confirmed environmental policies, proposals for collaborative efforts to solve environmental issues, GHG emissions, compliance with chemical substance regulations, product weight, weight of recycled materials and plant-derived materials in their products provided to us.

% of suppliers by number

78

% total procurement spend (direct and indirect)

89

% of supplier-related Scope 3 emissions as reported in C6.5

8

Rationale for the coverage of your engagement

In order to reduce our CO2 emissions, we conduct an annual supplier survey on our collaboration with suppliers to determine their CO2 emissions and use of plant-based materials. The percentage of our Scope 3 emissions from products and services purchased from suppliers is 76%, which is the highest category in our Scope 3 emissions. Therefore, in order to effectively reduce CO2 emissions, we have implemented a collaboration with our top 89% suppliers in terms of material purchases.

Impact of engagement, including measures of success

As a measure of success, we set a target of 80% or more as the response rate to the supplier questionnaire, which quantitatively indicates the level of engagement. We started with 10 main suppliers in FY2020 and expanded the scope to over 300 suppliers in FY2022. This resulted in a 89% response rate for the number of suppliers. Based on the response results, in cases where there are violations or potential problems regarding mandatory/important items such as ethics, legal obligations, compliance, and the use of conflict minerals, we initiate direct contact to confirm the current status and promote improvements through guidance. The ultimate goal is to reduce Scope 3 emissions and environmental impact by deepening this engagement.

Comment

C12.1b

(C12.1b) Give details of your climate-related engagement strategy with your customers.

Type of engagement & Details of engagement

Collaboration & innovation

Run a campaign to encourage innovation to reduce climate change impacts

% of customers by number

100

% of customer - related Scope 3 emissions as reported in C6.5

10.7

Please explain the rationale for selecting this group of customers and scope of engagement

10.7% of our Scope 3 emissions come from the use of our products at the customer's sites, with shrink tunnels using steam contributing the largest percentage. For this reason, we are developing energy-efficient production machinery, including shrink tunnels that can reduce the amount of steam needed to finish shrink labeling. Therefore, 100% of our customers are targeted for energy reductions under the scope of this collaboration.

Impact of engagement, including measures of success

Since these collaborations are expected to result in a reduction of CO2 emissions in Scope 3, the measure of success is the amount of CO2 reduction.

Specific target values are still under consideration, but the goal is to reduce Scope 3 emissions through design and operational innovations, such as reducing steam usage through improved insulation and efficient heat utilization while meeting customer requirements for even higher speeds and better overall performance.

C12.2

(C12.2) Do your suppliers have to meet climate-related requirements as part of your organization's purchasing process?

Yes, suppliers have to meet climate-related requirements, but they are not included in our supplier contracts

C12.2a

(C12.2a) Provide details of the climate-related requirements that suppliers have to meet as part of your organization's purchasing process and the compliance mechanisms in place.

Climate-related requirement

Waste reduction and material circularity

Description of this climate related requirement

In order to continue to be "a company that contributes to the realization of a sustainable society," Fuji Seal Group has proposed a pledge (Group Supplier Conduct Policy) to its suppliers in conducting business activities based on the FSG Code of Ethics, and requests that all suppliers understand and agree with the purpose of this policy and comply with it.

Specifically, we require our suppliers to contribute to energy and resource conservation, compliance with laws and regulations, reduction of greenhouse gas emissions, and development of low-carbon materials.

% suppliers by procurement spend that have to comply with this climate-related requirement

80

% suppliers by procurement spend in compliance with this climate-related requirement

89

Mechanisms for monitoring compliance with this climate-related requirement

Certification
Supplier self-assessment
First-party verification

Response to supplier non-compliance with this climate-related requirement

Retain and engage

C12.3

(C12.3) Does your organization engage in activities that could either directly or indirectly influence policy, law, or regulation that may impact the climate?

Row 1

External engagement activities that could directly or indirectly influence policy, law, or regulation that may impact the climate

Yes, our membership of/engagement with trade associations could influence policy, law, or regulation that may impact the climate

Does your organization have a public commitment or position statement to conduct your engagement activities in line with the goals of the Paris Agreement?

Yes

Attach commitment or position statement(s)

 Fuji Seal International SBTi Commitment letter.pdf

Describe the process(es) your organization has in place to ensure that your external engagement activities are consistent with your climate commitments and/or climate transition plan

The Group Sustainability Committee has been established to promote and support sustainability management at FSG.

At its monthly meetings, the Group Sustainability Committee decides on its structure and action plans, deliberates on internal policies and regulations, and compiles disclosed information. The committee members work with the secretariat and the divisions in charge of corporate planning, human resources, legal affairs, environment, safety and disaster prevention, and procurement to promote and execute sustainability activities.

In addition, important sustainability-related matters, such as the approval of policies and regulations and the setting and disclosure of important targets, are reported and discussed at the Board of Directors meetings, and decisions are made after discussion.

C12.3b

(C12.3b) Provide details of the trade associations your organization is a member of, or engages with, which are likely to take a position on any policy, law or regulation that may impact the climate.

Trade association

Other, please specify

Plastic Packaging Recycling Council

Is your organization's position on climate change policy consistent with theirs?

Consistent

Has your organization attempted to influence their position in the reporting year?

Yes, we publicly promoted their current position

Describe how your organization's position is consistent with or differs from the trade association's position, and any actions taken to influence their position

The Council for Promotion of Recycling of Plastic Containers and Packaging is a business association whose members are specified business associations and companies that promote the 3Rs of plastic containers and packaging. Fuji Seal is promoting various 3R and environmentally friendly designs such as refillable pouches and shrink mounts with brand owners, and is working together with the Council and other companies in the industry to build a rational recycling system for plastic packaging and to promote the 3Rs. The CIPP endorses the "COOL CHOICE" initiative sponsored by the Ministry of the Environment and disseminates it widely. "COOL CHOICE" is a new national movement that will continue until 2030, and is an effort to make "smart choices" that contribute to the fight against global warming, such as replacing products, using services, and choosing lifestyles that contribute to the creation of a decarbonized society.

Funding figure your organization provided to this trade association in the reporting year (currency as selected in C0.4)

400,000

Describe the aim of your organization's funding

Fuji Seal participates in recycling-related organizations. We are deeply involved in the recycling system in each country, and are promoting initiatives to realize a recycling-oriented society such as recyclable packaging design. We believe that these activities are actions that contribute to the transition to a low-carbon society.

Have you evaluated whether your organization's engagement with this trade association is aligned with the goals of the Paris Agreement?

Yes, we have evaluated, and it is aligned

C12.4

(C12.4) Have you published information about your organization's response to climate change and GHG emissions performance for this reporting year in places other than in your CDP response? If so, please attach the publication(s).

Publication

In mainstream reports

Status

Complete

Attach the document

 有価証券報告書.pdf

Page/Section reference

P13-18 : Management Policy, Operating Environment, Tasks and Targets to Address, Risks and Opportunities

Content elements

- Governance
- Strategy
- Risks & opportunities
- Emission targets

Comment

C12.5

(C12.5) Indicate the collaborative frameworks, initiatives and/or commitments related to environmental issues for which you are a signatory/member.

	Environmental collaborative framework, initiative and/or commitment	Describe your organization's role within each framework, initiative and/or commitment
Row 1	International Sustainability & Carbon Certification (ISCC) Task Force on Climate-related Financial Disclosures (TCFD) UN Global Compact	<ul style="list-style-type: none"> • Since July 2021 Fuji Seal Group has been committed to the UN Global Compact corporate responsibility initiative and its principles in the areas of human rights, labour, the environment and anti-corruption. • Since June 2021 Fuji Seal Group expressed its endorsement to the recommendations made in June 2017 by the Climate-Related Financial Disclosure Task Force ("TCFD") established by the Financial Stability Board. In line with TCFD's recommendations, we began disclosing information on climate-related business risks and business opportunities on our website last fiscal year. Going forward, we will continue to reflect this information in our management strategy and further disclose information in an effort to enhance corporate value as we move toward a low-carbon society. • On March 2, 2021, Bardstown plant in American Fuji Seal Inc. received the ISCC PLUS certification. The Bardstown plant successfully obtained the ISCC PLUS certification for the goal of actively handling shrink film containing post-consumer recycled plastic (PCR). Through these efforts, Fuji Seal Group will expand its portfolio of environmentally friendly products and focus on creating products that are friendly to people and the environment.

C15. Biodiversity

C15.1

(C15.1) Is there board-level oversight and/or executive management-level responsibility for biodiversity-related issues within your organization?

Board-level oversight and/or executive management-level responsibility for biodiversity-related issues	
Row 1	No, but we plan to have both within the next two years

C15.2

(C15.2) Has your organization made a public commitment and/or endorsed any initiatives related to biodiversity?

	Indicate whether your organization made a public commitment or endorsed any initiatives related to biodiversity	Biodiversity-related public commitments
Row 1	Yes, we have made public commitments only	Other, please specify "2. Protection of Biodiversity" within Basic Environmental Policy at Fuji Seal Group

C15.3

(C15.3) Does your organization assess the impacts and dependencies of its value chain on biodiversity?

Impacts on biodiversity

Indicate whether your organization undertakes this type of assessment

No, but we plan to within the next two years

Dependencies on biodiversity

Indicate whether your organization undertakes this type of assessment

No, but we plan to within the next two years

C15.4

(C15.4) Does your organization have activities located in or near to biodiversity-sensitive areas in the reporting year?

Not assessed

C15.5

(C15.5) What actions has your organization taken in the reporting year to progress your biodiversity-related commitments?

	Have you taken any actions in the reporting period to progress your biodiversity-related commitments?
Row 1	No, we are not taking any actions to progress our biodiversity-related commitments, but we plan to within the next two years

C15.6

(C15.6) Does your organization use biodiversity indicators to monitor performance across its activities?

	Does your organization use indicators to monitor biodiversity performance?	Indicators used to monitor biodiversity performance
Row 1	No, we do not use indicators, but plan to within the next two years	

C15.7

(C15.7) Have you published information about your organization's response to biodiversity-related issues for this reporting year in places other than in your CDP response? If so, please attach the publication(s).

Report type	Content elements	Attach the document and indicate where in the document the relevant biodiversity information is located
No publications		

C16. Signoff

C-FI

(C-FI) Use this field to provide any additional information or context that you feel is relevant to your organization's response. Please note that this field is optional and is not scored.

C16.1

(C16.1) Provide details for the person that has signed off (approved) your CDP climate change response.

Job title	Corresponding job category

Row 1	Director, Chairman and CEO	Chief Executive Officer (CEO)
-------	----------------------------	-------------------------------

SC. Supply chain module

SC0.0

(SC0.0) If you would like to do so, please provide a separate introduction to this module.

SC0.1

(SC0.1) What is your company's annual revenue for the stated reporting period?

	Annual Revenue
Row 1	184,035,000,000

SC1.1

(SC1.1) Allocate your emissions to your customers listed below according to the goods or services you have sold them in this reporting period.

Requesting member

KAO Corporation

Scope of emissions

Scope 1

Scope 2 accounting method

Scope 3 category(ies)

Allocation level

Company wide

Allocation level detail

Emissions in metric tonnes of CO2e

5,973

Uncertainty (±%)

20

Major sources of emissions

Combustion treatment of VOCs generated in production lines such as printing presses when manufacturing shrink labels, pressure-sensitive labels, and pouches.

Verified

No

Allocation method

Allocation based on the market value of products purchased

Market value or quantity of goods/services supplied to the requesting member

12,778,279,547

Unit for market value or quantity of goods/services supplied

Currency

Please explain how you have identified the GHG source, including major limitations to this process and assumptions made

Our company-wide GHG emission calculation excludes the overseas sales offices only, which are independent of the production plants, and the total emission is certified through a third-party verification. The majority of Kao's sales are in Japan, and the largest Scope 1 emission source in Japan is the combustion treatment of VOCs generated in the printing process. Since this calculation is based on the ratio of sales turnover for Kao to the sales of the entire company, it does not take into account the specificity of the products themselves.

Requesting member

KAO Corporation

Scope of emissions

Scope 2

Scope 2 accounting method

Market-based

Scope 3 category(ies)

Allocation level

Company wide

Allocation level detail

Emissions in metric tonnes of CO₂e

7,204

Uncertainty (±%)

20

Major sources of emissions

Electricity consumption at production lines such as printing presses when manufacturing shrink labels, pressure-sensitive labels, and pouches.

Verified

No

Allocation method

Allocation based on the market value of products purchased

Market value or quantity of goods/services supplied to the requesting member

12,778,279,547

Unit for market value or quantity of goods/services supplied

Currency

Please explain how you have identified the GHG source, including major limitations to this process and assumptions made

Our company-wide GHG emission calculation excludes the overseas sales offices only, which are independent of the production plants, and the total emission is certified through a third-party verification. The majority of Kao's sales are in Japan, and the largest Scope 2 emission source in Japan is electricity consumption at production lines. Since this calculation is based on the ratio of sales turnover for Kao to the sales of the entire company, it does not take into account the specificity of the products themselves.

Requesting member

KAO Corporation

Scope of emissions

Scope 3

Scope 2 accounting method

Scope 3 category(ies)

- Category 1: Purchased goods and services
- Category 2: Capital goods
- Category 3: Fuel-and-energy-related activities (not included in Scopes 1 or 2)
- Category 4: Upstream transportation and distribution
- Category 5: Waste generated in operations
- Category 6: Business travel
- Category 7: Employee commuting
- Category 11: Use of sold products
- Category 12: End-of-life treatment of sold products

Category 13: Downstream leased assets

Allocation level

Company wide

Allocation level detail

Emissions in metric tonnes of CO₂e

100,215

Uncertainty (±%)

20

Major sources of emissions

The main sources of emissions include purchase of raw material for shrink labels, pressure sensitive labels, and spouted pouches as well as product disposal and processing products in labelers and steam tunnels.

Verified

No

Allocation method

Allocation based on the market value of products purchased

Market value or quantity of goods/services supplied to the requesting member

12,778,279,547

Unit for market value or quantity of goods/services supplied

Currency

Please explain how you have identified the GHG source, including major limitations to this process and assumptions made

All company-wide Scope 3 emissions are included, and some are certified through a third-party verification. More than 90% of Scope 3 emissions are from Category 1. The largest contribution to Category 1 emissions are material sourcing. This calculation is based on the percentage of sales turnover for your company to the total sale turnover, so it does not take into account any specificity of the product itself.

Requesting member

Beiersdorf AG

Scope of emissions

Scope 1

Scope 2 accounting method

Scope 3 category(ies)

Allocation level

Company wide

Allocation level detail

Emissions in metric tonnes of CO₂e

574

Uncertainty (±%)

20

Major sources of emissions

Natural gas used for production lines such as printing presses in the manufacture of pressure-sensitive labels.

Verified

No

Allocation method

Allocation based on the market value of products purchased

Market value or quantity of goods/services supplied to the requesting member

1,228,157,923

Unit for market value or quantity of goods/services supplied

Currency

Please explain how you have identified the GHG source, including major limitations to this process and assumptions made

Our company-wide GHG emission calculation excludes the overseas sales offices only, which are independent of the factories, and the total emission is certified by third-party verification. Most Beiersdorf products are produced at our Polish factory, and the largest Scope 1 emission source at the Polish factory is natural gas used for production lines such as the printing process. This calculation is based on the sales turnover for BDF as a percentage of the company's total sales and does not take into account the specificity of the products.

Requesting member

Beiersdorf AG

Scope of emissions

Scope 2

Scope 2 accounting method

Market-based

Scope 3 category(ies)

Allocation level

Company wide

Allocation level detail

Emissions in metric tonnes of CO₂e

692

Uncertainty (±%)

20

Major sources of emissions

Electricity consumption at production lines such as printing presses when manufacturing pressure-sensitive labels.

Verified

No

Allocation method

Allocation based on the market value of products purchased

Market value or quantity of goods/services supplied to the requesting member

1,228,157,923

Unit for market value or quantity of goods/services supplied

Currency

Please explain how you have identified the GHG source, including major limitations to this process and assumptions made

Our company-wide GHG emission calculation excludes the oversea sales offices only, which are independent of the factories, and the total emission is certified a by third-party verification. Most Beiersdorf products are produced at our Polish factory, and the largest Scope 2 emission source at the Polish factory is electricity used for production lines such as the printing process. This calculation is based on the sales turnover for BDF as a percentage of the company's total sales and does not take into account the specificity of the products.

Requesting member

Beiersdorf AG

Scope of emissions

Scope 3

Scope 2 accounting method

Scope 3 category(ies)

Category 1: Purchased goods and services

Category 2: Capital goods

Category 3: Fuel-and-energy-related activities (not included in Scopes 1 or 2)

Category 4: Upstream transportation and distribution

Category 5: Waste generated in operations

Category 6: Business travel

Category 7: Employee commuting

Category 11: Use of sold products

Category 12: End-of-life treatment of sold products

Category 13: Downstream leased assets

Allocation level

Company wide

Allocation level detail

Emissions in metric tonnes of CO₂e

9,632

Uncertainty (±%)

20

Major sources of emissions

The main sources of emissions include purchase of raw material for shrink labels, pressure sensitive labels, and spouted pouches as well as product disposal and processing products in labelers and steam tunnels.

Verified

No

Allocation method

Allocation based on the market value of products purchased

Market value or quantity of goods/services supplied to the requesting member

1,228,157,923

Unit for market value or quantity of goods/services supplied

Currency

Please explain how you have identified the GHG source, including major limitations to this process and assumptions made

All company-wide Scope 3 emissions are included, and some are certified through a third-party verification. More than 90% of Scope 3 emissions are from Category 1. The largest contribution to Category 1 emissions are material sourcing. This calculation is based on the percentage of sales turnover for your company to the total sale turnover, so it does not take into account any specificity of the product itself.

Requesting member

Clorox Company

Scope of emissions

Scope 1

Scope 2 accounting method

Scope 3 category(ies)

Allocation level

Company wide

Allocation level detail

Emissions in metric tonnes of CO₂e

671

Uncertainty (±%)

20

Major sources of emissions

Natural gas used for production lines such as printing presses in the manufacture of shrink labels and pressure-sensitive labels.

Verified

No

Allocation method

Allocation based on the market value of products purchased

Market value or quantity of goods/services supplied to the requesting member

1,434,658,000

Unit for market value or quantity of goods/services supplied

Currency

Please explain how you have identified the GHG source, including major limitations to this process and assumptions made

Our company-wide GHG emission calculation excludes the overseas sales offices only, which are independent of the factories, and the total emission is certified by a third-party verification. All Clorox products are produced at our US factories, and the largest Scope 1 emission source at the US factories is natural gas used for production lines such as the printing process. This calculation is based on the sales turnover for Clorox as a percentage of the company's total sales and does not take into account the specificity of the products.

Requesting member

Clorox Company

Scope of emissions

Scope 2

Scope 2 accounting method

Market-based

Scope 3 category(ies)

Allocation level

Company wide

Allocation level detail

Emissions in metric tonnes of CO₂e

809

Uncertainty (±%)

20

Major sources of emissions

Electricity consumption at production lines such as printing presses when manufacturing shrink labels and pressure-sensitive labels.

Verified

No

Allocation method

Allocation based on the market value of products purchased

Market value or quantity of goods/services supplied to the requesting member

1,434,658,000

Unit for market value or quantity of goods/services supplied

Currency

Please explain how you have identified the GHG source, including major limitations to this process and assumptions made

Our company-wide GHG emission calculation excludes the overseas sales offices only, which are independent of the factories, and the total emission is certified by a third-party verification. All Clorox products are produced at our US factories, and the largest Scope 2 emission source at the US factories is electricity used for production lines such as the printing process. This calculation is based on the sales turnover for Clorox as a percentage of the company's total sales and does not take into account the specificity of the products.

Requesting member

Clorox Company

Scope of emissions

Scope 3

Scope 2 accounting method

Scope 3 category(ies)

- Category 1: Purchased goods and services
- Category 2: Capital goods
- Category 3: Fuel-and-energy-related activities (not included in Scopes 1 or 2)
- Category 4: Upstream transportation and distribution
- Category 5: Waste generated in operations
- Category 6: Business travel
- Category 7: Employee commuting
- Category 11: Use of sold products
- Category 12: End-of-life treatment of sold products
- Category 13: Downstream leased assets

Allocation level

Company wide

Allocation level detail

Emissions in metric tonnes of CO₂e

11,251

Uncertainty (±%)

20

Major sources of emissions

The main sources of emissions include purchase of raw material for shrink labels, pressure sensitive labels, and spouted pouches as well as product disposal and processing products in labelers and steam tunnels.

Verified

No

Allocation method

Allocation based on the market value of products purchased

Market value or quantity of goods/services supplied to the requesting member

1,434,658,000

Unit for market value or quantity of goods/services supplied

Currency

Please explain how you have identified the GHG source, including major limitations to this process and assumptions made

All company-wide Scope 3 emissions are included, and some are certified through a third-party verification. More than 90% of Scope 3 emissions are from Category 1. The largest contribution to Category 1 emissions are material sourcing. This calculation is based on the percentage of sales turnover for your company to the total sale turnover, so it does not take into account any specificity of the product itself.

Requesting member

The Coca-Cola Company

Scope of emissions

Scope 1

Scope 2 accounting method

Scope 3 category(ies)

Allocation level

Company wide

Allocation level detail

Emissions in metric tonnes of CO₂e

5,206

Uncertainty (±%)

20

Major sources of emissions

Combustion treatment of VOCs generated in production lines such as printing presses when manufacturing shrink labels and pressure-sensitive labels.

Verified

No

Allocation method

Allocation based on the market value of products purchased

Market value or quantity of goods/services supplied to the requesting member

11,138,014,625

Unit for market value or quantity of goods/services supplied

Currency

Please explain how you have identified the GHG source, including major limitations to this process and assumptions made

Our company-wide GHG emission calculation excludes the overseas sales offices only, which are independent of the production plants, and the total emission is certified through a third-party verification. The majority of sales turnover for The Coca-Cola Company are in Japan, and the largest Scope 1 emission source in Japan is the combustion treatment of VOCs generated in the printing process. Since this calculation is based on the ratio of sales turnover for The Coca-Cola Company to the sales of the entire company, it does not take into account the specificity of the products themselves.

Requesting member

The Coca-Cola Company

Scope of emissions

Scope 2

Scope 2 accounting method

Market-based

Scope 3 category(ies)

Allocation level

Company wide

Allocation level detail

Emissions in metric tonnes of CO₂e

6,279

Uncertainty (±%)

20

Major sources of emissions

Electricity consumption at production lines such as printing presses when manufacturing shrink labels and pressure-sensitive labels.

Verified

No

Allocation method

Allocation based on the market value of products purchased

Market value or quantity of goods/services supplied to the requesting member

11,138,014,625

Unit for market value or quantity of goods/services supplied

Currency

Please explain how you have identified the GHG source, including major limitations to this process and assumptions made

Our company-wide GHG emission calculation excludes the overseas sales offices only, which are independent of the production plants, and the total emission is certified through a third-party verification. The majority of sales turnover for the Coca-Cola Company are in Japan, and the largest Scope 2 emission source in Japan is electricity consumption at production lines. Since this calculation is based on the ratio of sales turnover for the Coca-Cola Company to the sales of the entire company, it does not take into account the specificity of the products themselves.

Requesting member

The Coca-Cola Company

Scope of emissions

Scope 3

Scope 2 accounting method

Scope 3 category(ies)

Category 1: Purchased goods and services

Category 2: Capital goods

Category 3: Fuel-and-energy-related activities (not included in Scopes 1 or 2)

Category 4: Upstream transportation and distribution

Category 5: Waste generated in operations

Category 6: Business travel

Category 7: Employee commuting

Category 11: Use of sold products

Category 12: End-of-life treatment of sold products

Category 13: Downstream leased assets

Allocation level

Company wide

Allocation level detail

Emissions in metric tonnes of CO₂e

87,351

Uncertainty (±%)

20

Major sources of emissions

The main sources of emissions include purchase of raw material for shrink labels, pressure sensitive labels, and spouted pouches as well as product disposal and processing products in labelers and steam tunnels.

Verified

No

Allocation method

Allocation based on the market value of products purchased

Market value or quantity of goods/services supplied to the requesting member

11,138,014,625

Unit for market value or quantity of goods/services supplied

Currency

Please explain how you have identified the GHG source, including major limitations to this process and assumptions made

All company-wide Scope 3 emissions are included, and some are certified through a third-party verification. More than 90% of Scope 3 emissions are from Category 1. The largest contribution to Category 1 emissions are material sourcing. This calculation is based on the percentage of sales turnover for your company to the total sale turnover, so it does not take into account any specificity of the product itself.

Requesting member

Nissin Foods Holdings Co., Ltd.

Scope of emissions

Scope 1

Scope 2 accounting method

Scope 3 category(ies)

Allocation level

Company wide

Allocation level detail

Emissions in metric tonnes of CO₂e

308

Uncertainty (±%)

20

Major sources of emissions

Combustion treatment of VOCs generated in production lines such as printing presses when manufacturing shrink labels and pressure-sensitive labels.

Verified

No

Allocation method

Allocation based on the market value of products purchased

Market value or quantity of goods/services supplied to the requesting member

658,389,000

Unit for market value or quantity of goods/services supplied

Currency

Please explain how you have identified the GHG source, including major limitations to this process and assumptions made

Our company-wide GHG emission calculation includes the all factories and offices, and the total emission is certified through a third-party verification. The majority of sales turnover for Nissin Foods Holdings Co., Ltd. Company are in Japan, and the largest Scope 1 emission source in Japan is the combustion treatment of VOCs generated in the printing process. Since this calculation is based on the ratio of sales turnover for Nissin Foods Holdings Co., Ltd. to the sales of the entire company, it does not take into account the specificity of the products themselves.

Requesting member

Nissin Foods Holdings Co., Ltd.

Scope of emissions

Scope 2

Scope 2 accounting method

Market-based

Scope 3 category(ies)

Allocation level

Company wide

Allocation level detail

Emissions in metric tonnes of CO₂e

371

Uncertainty (±%)

20

Major sources of emissions

Electricity consumption at production lines such as printing presses when manufacturing shrink labels and pressure-sensitive labels.

Verified

No

Allocation method

Allocation based on the market value of products purchased

Market value or quantity of goods/services supplied to the requesting member

658,389,000

Unit for market value or quantity of goods/services supplied

Currency

Please explain how you have identified the GHG source, including major limitations to this process and assumptions made

Our company-wide GHG emission calculation includes the all factories and offices, and the total emission is certified through a third-party verification. The majority of sales turnover for Nissin Foods Holdings Co., Ltd. are in Japan, and the largest Scope 2 emission source in Japan is electricity consumption at production lines. Since this calculation is based on the ratio of sales turnover for Nissin Foods Holdings Co., Ltd. to the sales of the entire company, it does not take into account the specificity of the products themselves.

Requesting member

Nissin Foods Holdings Co., Ltd.

Scope of emissions

Scope 3

Scope 2 accounting method

Scope 3 category(ies)

Category 1: Purchased goods and services

Category 2: Capital goods

Category 3: Fuel-and-energy-related activities (not included in Scopes 1 or 2)

Category 4: Upstream transportation and distribution

Category 5: Waste generated in operations

Category 6: Business travel

Category 7: Employee commuting

Category 11: Use of sold products

Category 12: End-of-life treatment of sold products

Category 13: Downstream leased assets

Allocation level

Company wide

Allocation level detail

Emissions in metric tonnes of CO₂e

5,163

Uncertainty (±%)

20

Major sources of emissions

The main sources of emissions include purchase of raw material for shrink labels, pressure sensitive labels, and spouted pouches as well as product disposal and processing products in labelers and steam tunnels.

Verified

No

Allocation method

Allocation based on the market value of products purchased

Market value or quantity of goods/services supplied to the requesting member

658,389,000

Unit for market value or quantity of goods/services supplied

Currency

Please explain how you have identified the GHG source, including major limitations to this process and assumptions made

All company-wide Scope 3 emissions are included, and some are certified through a third-party verification. More than 90% of Scope 3 emissions are from Category 1. The largest contribution to Category 1 emissions are material sourcing. This calculation is based on the percentage of sales turnover for your company to the total sale turnover, so it does not take into account any specificity of the product itself.

Requesting member

Kobayashi Pharmaceutical Co., Ltd.

Scope of emissions

Scope 1

Scope 2 accounting method

Scope 3 category(ies)

Allocation level

Company wide

Allocation level detail

Emissions in metric tonnes of CO₂e

458

Uncertainty (±%)

20

Major sources of emissions

Combustion treatment of VOCs generated in production lines such as printing presses when manufacturing shrink labels and pressure-sensitive labels.

Verified

No

Allocation method

Allocation based on the market value of products purchased

Market value or quantity of goods/services supplied to the requesting member

978,767,421

Unit for market value or quantity of goods/services supplied

Currency

Please explain how you have identified the GHG source, including major limitations to this process and assumptions made

Our company-wide GHG emission calculation excludes the overseas sales offices only, which are independent of the production plants, and the total emission is certified through a third-party verification. The majority of sales turnover for Kobayashi Pharmaceutical Co., Ltd. are in Japan, and the largest Scope 1 emission source in Japan is the combustion treatment of VOCs generated in the printing process. Since this calculation is based on the ratio of sales turnover for Kobayashi Pharmaceutical Co., Ltd. to the sales of the entire company, it does not take into account the specificity of the products themselves.

Requesting member

Kobayashi Pharmaceutical Co., Ltd.

Scope of emissions

Scope 2

Scope 2 accounting method

Market-based

Scope 3 category(ies)

Allocation level

Company wide

Allocation level detail

Emissions in metric tonnes of CO₂e

552

Uncertainty (±%)

20

Major sources of emissions

Electricity consumption at production lines such as printing presses when manufacturing shrink labels and pressure-sensitive labels.

Verified

No

Allocation method

Allocation based on the market value of products purchased

Market value or quantity of goods/services supplied to the requesting member

978,767,421

Unit for market value or quantity of goods/services supplied

Currency

Please explain how you have identified the GHG source, including major limitations to this process and assumptions made

Our company-wide GHG emission calculation excludes the overseas sales offices only, which are independent of the production plants, and the total emission is certified through a third-party verification. The majority of sales turnover for Kobayashi Pharmaceutical Co., Ltd. are in Japan, and the largest Scope 2 emission source in Japan is electricity consumption at production lines. Since this calculation is based on the ratio of sales turnover for Kobayashi Pharmaceutical Co., Ltd. to the sales of the entire company, it does not take into account the specificity of the products themselves.

Requesting member

Kobayashi Pharmaceutical Co., Ltd.

Scope of emissions

Scope 3

Scope 2 accounting method

Scope 3 category(ies)

Category 1: Purchased goods and services

Category 2: Capital goods

Category 3: Fuel-and-energy-related activities (not included in Scopes 1 or 2)

Category 4: Upstream transportation and distribution

Category 5: Waste generated in operations

Category 6: Business travel

Category 7: Employee commuting

Category 11: Use of sold products

Category 12: End-of-life treatment of sold products

Category 13: Downstream leased assets

Allocation level

Company wide

Allocation level detail

Emissions in metric tonnes of CO₂e

7,676

Uncertainty (±%)

20

Major sources of emissions

The main sources of emissions include purchase of raw material for shrink labels, pressure sensitive labels, and spouted pouches as well as product disposal and processing products in labelers and steam tunnels.

Verified

No

Allocation method

Allocation based on the market value of products purchased

Market value or quantity of goods/services supplied to the requesting member

978,767,421

Unit for market value or quantity of goods/services supplied

Currency

Please explain how you have identified the GHG source, including major limitations to this process and assumptions made

All company-wide Scope 3 emissions are included, and some are certified through a third-party verification. More than 90% of Scope 3 emissions are from Category 1. The largest contribution to Category 1 emissions are material sourcing. This calculation is based on the percentage of sales turnover for your company to the total sale turnover, so it does not take into account any specificity of the product itself.

Requesting member

S.C. Johnson & Son, Inc.

Scope of emissions

Scope 1

Scope 2 accounting method

Scope 3 category(ies)

Allocation level

Company wide

Allocation level detail

Emissions in metric tonnes of CO₂e

592

Uncertainty (±%)

20

Major sources of emissions

Natural gas used for production lines such as printing presses in the manufacture of shrink labels and pressure-sensitive labels.

Verified

No

Allocation method

Allocation based on the market value of products purchased

Market value or quantity of goods/services supplied to the requesting member

1,266,215,139

Unit for market value or quantity of goods/services supplied

Currency

Please explain how you have identified the GHG source, including major limitations to this process and assumptions made

Our company-wide GHG emission calculation excludes the overseas sales offices only, which are independent of the production plants, and the total emission is certified through a third-party verification. The majority of sales turnover for SCJ are in US and Europe, and the largest Scope 1 emission source in Japan is the combustion treatment of VOCs generated in the printing process. Since this calculation is based on the ratio of sales turnover for SCJ Company to the sales of the entire company, it does not take into account the specificity of the products themselves.

Requesting member

S.C. Johnson & Son, Inc.

Scope of emissions

Scope 2

Scope 2 accounting method

Market-based

Scope 3 category(ies)

Allocation level

Company wide

Allocation level detail

Emissions in metric tonnes of CO₂e

714

Uncertainty (±%)

20

Major sources of emissions

Electricity consumption at production lines such as printing presses when manufacturing shrink labels and pressure-sensitive labels.

Verified

No

Allocation method

Allocation based on the market value of products purchased

Market value or quantity of goods/services supplied to the requesting member

1,266,215,139

Unit for market value or quantity of goods/services supplied

Currency

Please explain how you have identified the GHG source, including major limitations to this process and assumptions made

Our company-wide GHG emission calculation excludes the overseas sales offices only, which are independent of the production plants, and the total emission is certified through a third-party verification. The majority of sales turnover for the SCJ are in US and Europe, and the largest Scope 2 emission source in Japan is electricity consumption at production lines. Since this calculation is based on the ratio of sales turnover for SCJ to the sales of the entire company, it does not take into account the specificity of the products themselves.

Requesting member

S.C. Johnson & Son, Inc.

Scope of emissions

Scope 3

Scope 2 accounting method

Scope 3 category(ies)

Category 1: Purchased goods and services

Category 2: Capital goods

Category 3: Fuel-and-energy-related activities (not included in Scopes 1 or 2)

Category 4: Upstream transportation and distribution

Category 5: Waste generated in operations

Category 6: Business travel

Category 7: Employee commuting
Category 11: Use of sold products
Category 12: End-of-life treatment of sold products
Category 13: Downstream leased assets

Allocation level

Company wide

Allocation level detail

Emissions in metric tonnes of CO₂e

9,930

Uncertainty (±%)

20

Major sources of emissions

The main sources of emissions include purchase of raw material for shrink labels, pressure sensitive labels, and spouted pouches as well as product disposal and processing products in labelers and steam tunnels.

Verified

No

Allocation method

Allocation based on the market value of products purchased

Market value or quantity of goods/services supplied to the requesting member

1,266,215,139

Unit for market value or quantity of goods/services supplied

Currency

Please explain how you have identified the GHG source, including major limitations to this process and assumptions made

All company-wide Scope 3 emissions are included, and some are certified through a third-party verification. More than 90% of Scope 3 emissions are from Category 1. The largest contribution to Category 1 emissions are material sourcing. This calculation is based on the percentage of sales turnover for your company to the total sale turnover, so it does not take into account any specificity of the product itself.

SC1.2

(SC1.2) Where published information has been used in completing SC1.1, please provide a reference(s).

The emission data and total sales turnover to calculate Scope 1 and Scope 2 data are reported in our integrated report. Please note that we do not disclose sales by customer.

SC1.3

(SC1.3) What are the challenges in allocating emissions to different customers, and what would help you to overcome these challenges?

Allocation challenges	Please explain what would help you overcome these challenges
Diversity of product lines makes accurately accounting for each product/product line cost ineffective	<p>The GHG emissions associated with your products were calculated based on customer sales turnover with average CO2 emission intensity.</p> <p>Our total GHG emissions were derived from all disclosed sites that may not be related to your products.</p> <p>We strive to give the best possible answer in our operations, but the data accuracy may not be the best in theory.</p> <p>If greater accuracy is needed, additional resources and capital investment to monitor may be required.</p>

SC1.4

(SC1.4) Do you plan to develop your capabilities to allocate emissions to your customers in the future?

No

SC1.4b

(SC1.4b) Explain why you do not plan to develop capabilities to allocate emissions to your customers.

Such additional resources and capital investment required for better accuracy may not be justified due to the limited amount of business and expected cost effectiveness.

SC2.1

(SC2.1) Please propose any mutually beneficial climate-related projects you could collaborate on with specific CDP Supply Chain members.

Requesting member

KAO Corporation

Group type of project

New product or service

Type of project

New product or service that has a lower upstream emissions footprint

Emissions targeted

Actions that would reduce both our own and our customers' emissions

Estimated timeframe for carbon reductions to be realized

1-3 years

Estimated lifetime CO2e savings

Estimated payback

Cost/saving neutral

Details of proposal

Shrink labels, spouted pouches and pressure sensitive labels that promote the 4Rs: reduce, reuse, recycle and renewable

For example

Environmentally friendly inks (e.g. biomass-based and water-based)

-Shrink labels containing recycled materials

-Recyclable shrink labels

-Thinner shrink labels

-Spouted pouches for reusable and replacable containers to reduce material

-New solutions for specific requests

Requesting member

Beiersdorf AG

Group type of project

New product or service

Type of project

New product or service that has a lower upstream emissions footprint

Emissions targeted

Actions that would reduce both our own and our customers' emissions

Estimated timeframe for carbon reductions to be realized

1-3 years

Estimated lifetime CO2e savings

Estimated payback

Cost/saving neutral

Details of proposal

Shrink labels, spouted pouches and pressure sensitive labels that promote the 4Rs: reduce, reuse, recycle and renewable

For example

Environmentally friendly inks (e.g. biomass- and water-based)

- Shrink labels containing recycled materials
- Recyclable shrink labels
- Spouted pouches for reusable and replacable containers to reduce material usage
- New solutions for specific requests

Requesting member

Clorox Company

Group type of project

New product or service

Type of project

New product or service that has a lower upstream emissions footprint

Emissions targeted

Actions that would reduce both our own and our customers' emissions

Estimated timeframe for carbon reductions to be realized

1-3 years

Estimated lifetime CO2e savings

Estimated payback

Cost/saving neutral

Details of proposal

Shrink labels, spouted pouches and pressure sensitive labels that promote the 4Rs: reduce, reuse, recycle and renewable

For example

Environmentally friendly inks (e.g. biomass-based and water-based)

- Shrink labels containing recycled materials
- Recyclable shrink labels
- Thinner shrink labels
- Spouted pouches for reusable and replacable containers to reduce material
- New solutions for specific requests

Requesting member

The Coca-Cola Company

Group type of project

New product or service

Type of project

New product or service that has a lower upstream emissions footprint

Emissions targeted

Actions that would reduce both our own and our customers' emissions

Estimated timeframe for carbon reductions to be realized

1-3 years

Estimated lifetime CO2e savings

Estimated payback

Cost/saving neutral

Details of proposal

Shrink labels, spouted pouches and pressure sensitive labels that promote the 4Rs: reduce, reuse, recycle and renewable

For example

Environmentally friendly inks (e.g. biomass- and water-based)

-Shrink labels containing recycled materials

-Recyclable shrink labels

-Spouted pouches for reusable and replacable containers to reduce material usage

-New solutions for specific requests

Requesting member

Nissin Foods Holdings Co., Ltd.

Group type of project

New product or service

Type of project

New product or service that has a lower upstream emissions footprint

Emissions targeted

Actions that would reduce both our own and our customers' emissions

Estimated timeframe for carbon reductions to be realized

1-3 years

Estimated lifetime CO2e savings

Estimated payback

Cost/saving neutral

Details of proposal

Shrink labels, spouted pouches and pressure sensitive labels that promote the 4Rs: reduce, reuse, recycle and renewable

For example

Environmentally friendly inks (e.g. biomass-based and water-based)

-Shrink labels containing recycled materials

-Recyclable shrink labels

-Thinner shrink labels

-Spouted pouches for reusable and replacable containers to reduce material

-New solutions for specific requests

Requesting member

Kobayashi Pharmaceutical Co., Ltd.

Group type of project

New product or service

Type of project

New product or service that has a lower upstream emissions footprint

Emissions targeted

Actions that would reduce both our own and our customers' emissions

Estimated timeframe for carbon reductions to be realized

1-3 years

Estimated lifetime CO2e savings

Estimated payback

Cost/saving neutral

Details of proposal

Shrink labels, spouted pouches and pressure sensitive labels that promote the 4Rs: reduce, reuse, recycle and renewable

For example

Environmentally friendly inks (e.g. biomass-based and water-based)

-Shrink labels containing recycled materials

-Recyclable shrink labels

-Thinner shrink labels

-Spouted pouches for reusable and replacable containers to reduce material

-New solutions for specific requests

Requesting member

S.C. Johnson & Son, Inc.

Group type of project

New product or service

Type of project

New product or service that has a lower upstream emissions footprint

Emissions targeted

Actions that would reduce both our own and our customers' emissions

Estimated timeframe for carbon reductions to be realized

1-3 years

Estimated lifetime CO2e savings

Estimated payback

Cost/saving neutral

Details of proposal

Shrink labels, spouted pouches and pressure sensitive labels that promote the 4Rs: reduce, reuse, recycle and renewable

For example

Environmentally friendly inks (e.g. biomass-based and water-based)

-Shrink labels containing recycled materials

-Recyclable shrink labels

-Thinner shrink labels

-Spouted pouches for reusable and replacable containers to reduce material

-New solutions for specific requests

SC2.2

(SC2.2) Have requests or initiatives by CDP Supply Chain members prompted your organization to take organizational-level emissions reduction initiatives?

No

SC4.1

(SC4.1) Are you providing product level data for your organization's goods or services?

No, I am not providing data

Submit your response

In which language are you submitting your response?

English

Please confirm how your response should be handled by CDP

	I understand that my response will be shared with all requesting stakeholders	Response permission
Please select your submission options	Yes	Public

Please confirm below

I have read and accept the applicable Terms