Zero-Carbon Society

Disclosure Based on the TCFD Recommendations

201-2

Our Basic Approach and Strategy

Unicharm announced its endorsement of the TCFD recommendations in May 2019. We have examined the risks and opportunities associated with climate change and disclosed our initiatives, indicators, and targets related to the three areas of governance, strategy, and risk management in accordance with the TCFD framework.

TCFD TASK FORCE ON CLIMATE-RELATED FINANCIAL DISCLOSURES

Governance

The president & CEO is responsible for evaluating risks and opportunities related to climate change and for setting and enforcing CO_2 reduction targets. The ESG Committee, chaired by the president & CEO and staffed by directors and all executive officers, meets quarterly to report and deliberate on overall environmental activities including those related to measures against climate change, our response to social issues, and important issues for governance. For ESG Committee meetings, the ESG Division—which is responsible for responding to Groupwide environmental issues—collects and verifies environmental data and information on our activities every month for each site, and after discussions with the executive officer in charge of ESG, sets agendas for committee meetings.

The activities of the ESG Committee are then supervised by the Board of Directors, which receives reports on committee activities from the executive officer in charge of ESG at least once a year. The ESG Committee and the Board of Directors perform checks and provide guidance and instructions on these activities in accordance with the progression of Environmental Targets 2030 and Kyo-sei Life Vision 2030. To allow Unicharm to achieve its goals, we also set the term (years) for return on investment, deliberate on investment decisions on a case-by-case basis, implement necessary measures, and aim to meet our targets. Following the recommendations of the TCFD, since fiscal 2021, we have publicly shared information about specific plans based on Environmental Targets 2030 and Kyo-sei Life Vision 2030.

Moreover, to ensure that directors and executive officers demonstrate strong leadership toward the accomplishment of ESG strategies and targets, in fiscal 2020 we introduced ESG items into the evaluation indexes used to determine performance-linked compensation for directors (excluding those who are Audit & Supervisory Committee members) and executive officers. Furthermore, ESG criteria were also added as evaluation indicators for all employees in fiscal 2023.

P.118 Evaluation Criteria for and Basic Policy on Executive Remuneration and Fiscal 2024 Remuneration Targets and Results
P.20 Basic Environmental Policy > Management Structure
P.8 Sustainability Promotion System

▶ **Overview of TCFD Pillars and Initiative Status**

TCFD Recommended Disclosure Pillars		Unicharm Initiative Status
Governance	Organizational governance with respect to climate-related risks and opportunities	• The ESG Committee, chaired by the president & CEO, meets quarterly and reports deliberations and decisions to the Board of Directors one or more times annually • In fiscal 2020, we introduced ESG criteria into the evaluation metrics for determining performance-linked remuneration of executive officers
Strategy	Impact of climate-related risks and opportunities on organization's businesses, strategy, and financial planning	• We conducted scenario analysis of financial impacts in 2030 based on 1.5°C and 4°C conditions in accordance with the TCFD recommendations • In Environmental Targets 2030 and Kyo-sei Life Vision 2030, we set reduction targets by scope and targets for switching to renewable electricity, and disclosed the results • Through the GHG Emissions Visualization Project, we formulated the GHG emissions reduction road map and promoted the visualization of GHG emissions of raw materials
Risk Management	Methods for identifying, assessing, and managing climate-related risks	• Risks and opportunities related to climate change are positioned as "Business Risks," with the ESG Committee discussing details and taking appropriate actions as necessary
Indicators and Targets	Indicators and targets used to assess and manage relevant climate-related risks and opportunities	• In May 2018, we received certification for our 2.0°C target from the Science Based Targets initiative (SBTi). However, to promote further reduction of CO_2 and other greenhouse gases, we established our 1.5°C target, for which we received certification from the SBTi in October 2024 • Under our 2050 Vision, we have set the target of realizing a "three zeros" society (zero plastic waste, net zero CO_2 emissions, and zero deforestation) in 2050, and to achieve this, formulated specific targets in Environmental Targets 2030 and Kyo-sei Life Vision 2030, and disclosed progress toward their achievement

Strategy

Unicharm considers risks and opportunities with reference to our situation year by year (the short term), in alignment with our medium-term management plan (the medium term, three to five years) and international prospects (the long term, 10 to 20 years) encompassing factors such as the SDGs and the Paris Agreement. We also use an enterprise risk management (ERM) approach to identify business and other risks facing the entire Group and address climate change risks as one of them. In order to respond to the risks and opportunities identified, we are implementing the course of action shown on the right in conjunction with our financial plan.

Scenarios and Planning

Scenario analysis was conducted using two situations assuming global average temperature increases of 1.5°C and 4°C by 2100 compared to pre-industrial times. The Representative Concentration Pathways (RCP) scenario* is used as the basis for calculating estimated physical impacts.

To participate with a scientific approach in efforts focused on the 2°C target indicated in the Paris Agreement of 2015, we received approval from SBTi in 2018 for our reduction target toward 2030. However, due to the need for a more stringent 1.5°C target, announced at COP26, we obtained certification for this target in October 2024.

We set 2030 targets in Environmental Targets 2030 and Kyo-sei Life Vision 2030, which are key environmental targets for the entire Group, and have incorporated the plans into strategies from both short-term and long-term perspectives and implemented them such as by stating environmental considerations as part of product development strategies in the marketing and development divisions and introducing energy-saving activities and renewable electricity in the production division.

* Multiple representative concentration pathway scenarios are prepared to project future climates in each pathway, and various socioeconomic scenarios can be formulated to realize these concentration pathways. These include risks associated with factory operations in coastal areas where sea levels are rising, operational risks associated with supply chain disruptions caused by cyclones and other weather events, risks of lower GDP in equatorial regions due to heat waves, and raw material costs due to delays in the growth of forest resources and the harvesting of crops and other products due to changes in terrestrial ecosystems.

▶ Risks and Scenarios Envisioned by the Company Based on the TCFD Recommendations

We evaluated impacts on our business and finances on three levels (major moderate, and minor) and defined financial consequences as follows: major (the impact would lead to a suspension or major downsizing or expansion of our business), moderate (the impact would have a partial effect on our business), and minor (the impact would have a slight effect on our business).

			Evaluation Criteria	Assessed Financial Impact	Financial Consequences in 2030		Length of Measures			Progress of Unicharm's Measures
					1.5°C	4°C	Short Term	Medium Term	Long Term	
Risks	Opportunities	Policies, laws, and regulations	Introduction of a GHG emissions trading scheme and introduction and raising of carbon taxes	• Higher factory operation costs due to the introductions of and increases in GHG emissions trading and carbon taxes	Major	Minor	●	●	●	• Set GHG emissions reduction targets and implemented initiatives to reduce energy use
			GHG emissions	• Mandatory reporting of GHG emissions • Highly accurate reporting level requirements	Major	Minor	●	●		• Continued to visualize GHG emissions and develop specific reduction methods in Japan and at our subsidiaries overseas, which have played a leading role in these efforts, by proceeding with the GHG Emissions Visualization Project
			Introduction of plastic waste regulations	• Impact on commodity production costs due to regulatory compliance with regulations on petroleum-derived containers and packaging materials	Major	Minor	●	●	●	• Set targets for reduction of petrochemical-derived plastics use and implemented initiatives to reduce usage
				• Increase in material and product costs due to mandatory use of renewable plastic	Major	Minor	●	●	●	• Recycled trim of plastic materials generated in the manufacturing process and used it in product packaging
		Technologies	Up-front costs associated with the transition to low-carbon technology	• Costs for visualizing GHG emissions (system construction costs and other investments)	Major	Minor	●	●		• Continued to visualize GHG emissions and develop specific reduction methods in Japan and at our subsidiaries overseas at our subsidiaries in Japan and overseas, which have played a leading role in these efforts, by proceeding with the GHG Emissions Visualization Project
		Markets	Increase in energy prices	• Fluctuations in retail electricity prices • Impact of procurement costs due to the increased use of renewable electricity	Major	Minor	●	●		• Set target of 100% use of renewable electricity for our business activities by 2030 and switched to it
			Higher raw materials prices	• Impact of cost increase due to conversion from petrochemical-derived materials to naturally-derived materials	Major	Minor	●	●	●	• Set targets for reduction of petrochemical-derived plastics use and implemented measures accordingly
				• Procurement cost impact of increased demand for certified pulp for forest conservation	Major	Minor	●	●	●	• Engaged in responsible procurement and procured raw materials through emphasis on manufacturing and supply capabilities in accordance with the Declaration of Biodiversity, Basic Policy of Procurement, Sustainable Procurement Guidelines, and Forest-Derived Raw Materials Procurement Guidelines
			Changes in consumer behavior	• Growing ethical awareness among consumers • Growing demand for products with low GHG emissions	Major	Minor	●	●		• Appropriately disclosed information through public relations, packaging, our website, news releases, and other methods of disclosure

			Evaluation Criteria	Assessed Financial Impact	Financial Consequences in 2030		Length of Measures			Progress of Unicharm's Measures
					1.5°C	4°C	Short Term	Medium Term	Long Term	
Risks	Transition	Reputation	Criticism toward sectors concerned	• Reputation risk as a company that uses pulp and other forest resources • Use of certified materials as a criterion for determining whether a company is committed to environmental measures	Major	Minor	●	●		• Established targets for 100% procurement of certified pulp (PEFC- and CoC-certified) and certified palm oil by 2030 and disclosed the status of these initiatives
	Physical	Acute	Intensification of extreme weather	• Impact of suspended operations due to supply chain disruptions resulting from floods and other major disasters related to typhoons, cyclones, or weather anomalies	Major	Major	●	●	●	• Conducting medium- to long-term water risk analysis using the Aqueduct Overall Water Risk Map (Aqueduct) and implement countermeasures in cooperation with external parties, especially in areas with high water risk
		Chronic	Excess demand for water	• Suspension of operations due to unstable supply of forest-derived raw materials (pulp, paper, etc.) indirectly caused by water resource depletion • Suspension of product sales due to tight supply of water used in the manufacturing process of wet wipes and pet food • Increased operating costs due to higher water usage fees	Major	Moderate	●	●	●	• Using Aqueduct to conduct medium- to long-term water risk analysis and introduce water recycling systems at water-intensive nonwoven fabric and *Paper sand* manufacturing plants to reduce water withdrawal
Opportunities	Resource efficiency		Efficient use of transportation	• Impact of reduced CO_2 emissions and costs through the use of railroads and ships, including collaborations with other companies	Major	Major	●			• Modal shift from truck to ocean vessel for material transport is underway. Through a joint effort with other companies, a round-trip transportation network*1 and a relay transportation network*2 have also been established as measures to reduce CO_2 emissions
			More efficient production and distribution processes	• Impact of reduced CO_2 emissions and costs from promoting factory emissions recycling activities for more efficient use of resources and switching to compressed packages	Major	Major	●	●		• Recycling of trim of plastic materials generated when cutting materials in the manufacturing process into raw materials for use in product packaging • Reducing emissions through secondary use of product waste disposed throughout the entire Group, such as cat continence care products (*Paper sand*) • Reducing package size and improving loading efficiency by reviewing product specifications and package filling methods
			Use of recycling methods	• Expanded use of used disposable diaper recycling technologies and increased cost absorption opportunities • Practical application of advanced used disposable diaper recycling technology • Growing demand for products with low environmental impact	Major	Major	●	●		• Realized a system that washes and separates collected used disposable diapers and recycles them into pulp that is as hygienic and safe as unused pulp
			Reduction of water usage and consumption	• Designing environmentally friendly products and promoting factory efficiency	Major	Moderate	●	●		• Set target for reducing water withdrawal for the entire Group by 1% each year from the previous fiscal year, and promoting water withdrawal reduction, water recycling, and purification at production sites
	Energy sources		Use of renewable electricity	• Achieving carbon neutrality in 2050, reducing energy costs	Major	Moderate	●	●	●	• Introducing renewable electricity at production sites
	Products and services		• Development and expansion of lineup of low-carbon products and services • Development of new products and services through R&D and innovation • Leveraging of ability to diversify business activities • Adaption to changes in consumer preferences	• Product development to encourage GHG emissions reduction • Purchasing with built-in GHG indicators • Promoting environmentally friendly products and development of environmental labels	Major	Major	●	●	●	• Implementing system construction to visualize the GHG emissions of raw materials through the GHG Emissions Visualization Project • Developing and marketing products conforming to the SDGs Theme Guideline, an internal guideline for contributing to sustainability
	Markets		Tapping into new markets	• Impact from the spread of environmentally friendly products • Impact of the proliferation of products using certified wood	Major	Minor	●	●		• Expanding our lineup of environmentally friendly products and products made of certified materials in accordance with the SDGs Theme Guideline
	Resilience		Participation in renewable electricity programs and adoption of energy-saving measures	• Switching to renewable electricity • Reducing electricity consumption • Reducing raw material consumption	Major	Moderate	●	●		• Establishing calculation rules and systems for the GHG Emissions Visualization Project and continuing to collect primary data from suppliers

*1 A method of transport in which after unloading cargo, trucks are reloaded with different products before returning to their point of departure for the purpose of maximizing cargo loading efficiency

*2 A method of transport in which a delivery route is assigned to multiple drivers

Conforming to Regulations and Standards

In response to the transition to a 1.5˚C target at COP26, Unicharm has revised its target from 2˚C, which was previously approved by the SBTi in 2018, to 1.5˚C and resubmitted an application for approval, which was granted in October 2024.

In Japan, we are conducting capital investments (introduction of inverters that offer energy-saving potential) that contribute to an annual 1% increase in energy efficiency as stipulated in the country's Act on Rationalizing Energy Use and Shifting to Non-Fossil Energy.

Establishing a System to Promote the Research and Development of Low-Carbon Products

We are in discussions with suppliers from whom we procure raw materials to provide primary GHG emissions data for each material. We believe that obtaining such data will enhance the accuracy of estimations for the amount of emissions that can be reduced through the use of different materials, allowing developers to select low-carbon raw materials more appropriately. To promote such efforts, in May 2022, we launched the GHG Emissions Visualization Project through which we are establishing calculation rules and developing systems in accordance with ISO 14064 and the Greenhouse Gas Protocol and collecting primary GHG emissions data for each material.

P.43 GHG Emissions Visualization Project

Risk Management

We use an enterprise risk management (ERM) approach to identify risks to the Group as a whole and engage with climate change risks as one of them.

Groupwide climate-related risk assessment is conducted by the ESG Division. First, we run simulations of climate change impact that cover severity, scope, and transition risks (carbon pricing, energy prices, etc.) based on the recommendations of the TCFD and create multiple qualitative scenarios (1.5˚C target scenario and 4˚C target scenario) for the period up to 2050, using information from sources such as the IPCC*1 *Sixth Assessment Report* and the IEA's*2 *World Energy Outlook 2023*.

These scenarios are then used, together with the estimated value of damage (calculated as part of site-level risk assessment), to estimate the total damage costs of Group companies. The results of this evaluation are reported to the ESG Committee and the Board of Directors and are then used in the formulation of our business strategy and business plan. In the event that the ESG Committee, in which the Board of Directors and all executive officers participate, judges that the aforementioned scenarios would be impacted, a responsible task team will be established for developing a plan, with the ESG Division acting as secretariat. This plan will then be approved at the next ESG Committee meeting, upon which the responsible team will implement it and report on progress at ESG Committee meetings.

*1 IPCC: Intergovernmental Panel on Climate Change
*2 IEA: International Energy Agency

P.127 Business and Other Risks

Indicators and Targets

To develop a specific action plan for mitigating climate change, Unicharm has endorsed the SBTi since May 2017. After conducting simulations up to 2045 and consulting with the SBTi, in June 2018, Unicharm became the 17th company in Japan to have its reduction plan certified for consistency with the 2˚C target. Moreover, in light of increasing global momentum to promote the reduction of CO_2 and other greenhouse gases, we obtained certification for the 1.5˚C target in October 2024.

We have set specific long-term CO_2 reduction targets for both Scope 1 (direct emissions from our own factories, offices, vehicles, etc.), Scope 2 (indirect emissions from our own factories, vehicles, etc.), and Scope 3 (indirect emissions from the supply chain).

1.5˚C Target (Base Year: 2021, Target Year: 2031)

- Reduce Scope 1 and Scope 2 greenhouse gas emissions by 46.2%
- Reduce Scope 3 greenhouse gas emissions by 27.5%

By achieving these goals, we will also be preparing for the following risks.

(1) If regulations are strengthened in order to achieve the goals of the Paris Agreement, there is a risk that the development of energy-saving measures and the purchase of emissions credits will become necessary and that costs will rise for electric power companies, manufacturing sites, and suppliers.
(2) Electricity prices in Japan have risen by approximately 10% on average due to carbon taxes and the cost structure for purchasing renewable electricity. If carbon taxes are introduced in all of the overseas countries and regions where Unicharm carries out manufacturing or the cost structure for purchasing renewable electricity is not improved, operating costs could rise by 10%.

Unicharm has established a medium- to long-term vision and targets for climate change in its 2050 Vision and Environmental Targets 2030. "Reducing CO_2 emissions associated with raw materials procurement" (Scope 3, Category 1), "reducing CO_2 emissions in manufacturing" (Scope 1 and Scope 2), and "reducing CO_2 emissions associated with disposal of used products" (Scope 3, Category 12), which account for a large proportion of CO_2 emissions over the product life cycle, have been set as our targets for climate change response. For Scope 1 and Scope 2, meetings on energy conservation and renewable energy are held with promoters of environmental activities at each site four times a year, and monitor the progress of annual plans. For "CO_2 emissions from raw materials procurement" (Scope 3 Category 1) that form the bulk of our Scope 3 emissions, we perform LCAs*3 to calculate CO_2 emissions for each product from the design phase onward, and product developers and the ESG Division discuss these emissions and consider countermeasures from the perspectives of product function and CO_2 emissions.

*3 LCAs: Life Cycle Assessments. A method used to quantitatively assess the potential environmental impact on our planet and ecosystem of the resources used and CO_2 emissions generated throughout a product's life cycle, encompassing raw materials procurement, production, logistics, use, and disposal

P.38 CO_2 Emissions Throughout the Supply Chain (Overall Picture of Scopes 1 to 3)
P.38 CO_2 Emissions Associated with Raw Materials Procurement
P.39 CO_2 Emissions During Manufacturing, Sales, and Distribution