Unicharm Group Sustainability Report 2023	Introduction		Sustainability Management		Kyo-sei Life Vision 2030		Environment		Society		Governance		External Partnerships and Evaluations	Third-Party Assurance Re	ty eport		049	•
--	--------------	--	------------------------------	--	-----------------------------	--	-------------	--	---------	--	------------	--	--	-----------------------------	-------------	--	-----	---

201-2

Climate Change

Disclosure Based on the TCFD Recommendations

Our Basic Approach and Strategy

We have examined the risks and opportunities associated with climate change and disclosed them in accordance with the key areas of the TCFD framework: governance, strategy, risk management, and metrics and targets.



Overview

Recommendation	Recommended Disclosures	Disclosures	Compliance Status				
	Governance of organizational	Explanation of the Board of Directors' supervisory framework for risks and opportunities	Hold ESG Committee meetings on a quarterly basis				
Governance	risks and opportunities	Explanation of management's role in assessing and managing risks and opportunities	Report to the Board of Directors Establish director targets in accordance with director remuneration				
		Explanation of the transition plan for realizing a low-carbon economy					
	Organizational impact	Explanation of short-, medium-, and long-term risks and opportunities	• Establish targets and disclose results for Kyo-set Life vision 2030 and Environmental targets 2030 • Formulate the GHG Emissions Visualization Project and develop and implement a GHG				
	Organizational impact	GHG emissions reduction targets	emissions reduction road map				
Strategy		GHG emissions reduction activities	Establish targets and calculate results for Scope 1, Scope 2, and Scope 3 emissions				
	Strategic resilience	Possibility of discussions on the potential impact of climate-related issues on financial performance (including revenue and cost) and financial position (including assets and liabilities) in scenario analyses	Set targets for and promote transition to renewable electricity Promote visualization of raw materials with low CO ₂ emissions by means of the GHG Emiss				
		Explanation of the organization's strategic resilience based on scenario analyses	Visualization Project				
	Status of risk identification	Risk identification and assessment processes					
Risk Management	assessment, and	Risk management process	Convene the Crisis Management Response Committee and ensure management based on the Groupwide Crisis Communication Manual				
	management	Status of organizational risk integration and management					
	Climate change-related	Assessment of climate change risks and opportunities and disclosure of metrics (indicators)					
	metrics	Provision of plans and forward-looking metrics as necessary					
Metrics and Targets	Scope 1, Scope 2, and Scope 3 greenhouse gas (GHG) emissions	Disclosure of Scope 1 and Scope 2 GHG emissions and Scope 3 GHG emissions and relevant risks	 Long-term targets: Achieve "three zeros" (zero plastic waste, zero CO₂ emissions, and zero deforestation) under Environmental Targets 2030 Medium-term targets: Establish 2030 medium-term targets, Environmental Targets 2030, and Kyo-sei Life Vision 2030 as metrics for achieving long-term targets 				
	Climate change-related targets	Explanations on key climate-related targets concerning GHG emissions, water use, and energy use in accordance with anticipated regulatory requirements, market constraints, and other targets (and in accordance with climate-related targets of other industries when necessary)					
		Disclosure of interim targets for the medium and long terms for the Company as a whole and each business division					

Unicharm Group	
Sustainability Report	2023

Kyo-sei Life Vision 2030

Environment

Governance

The president & CEO is responsible for evaluating risks and opportunities related to climate change and for setting and enforcing CO₂ reduction targets. The ESG Committee, chaired by the president & CEO and staffed by directors and all executive officers, meets guarterly to report and deliberate on overall environmental activities including those related to climate change, updates on the progress of Environmental Targets 2030 and Kyo-sei Life Vision 2030, our response to social issues, and important issues for governance. For these committee meetings, the ESG Division—which is responsible for responding to Groupwide environmental issues—collects and checks environmental data and information on our activities every month for each site. This information is discussed with the executive officer in charge of ESG and forms the agenda for the ESG 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 the necessary measures, and aim to meet our targets. Following the recommendations of the TCFD, we publicly share information about specific plans based on Environmental Targets 2030 and Kyo-sei Life Vision 2030.

Moreover, in order to carry out and achieve ESG strategies and targets under the direction of directors and executive officers, ESG criteria have been incorporated into the evaluation indicators for directors (excluding those who are Audit & Supervisory Committee members) and executive officers. ESG criteria were also added as evaluation indicators for general employees in 2023.

P.010 ESG Promotion Structure

P.036 Management Structure

P121 Evaluation Criteria for and Basic Policy on Executive Remuneration and Fiscal 2022 Remuneration Targets and Results

Strategy

Unicharm considers risks and opportunities with reference to our situation year by year (the short term), in alignment with our 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 risks to the Group as a whole and engage with climate change risks as one of these.

In order to respond to the risks and opportunities identified, we are implementing the following course of action in conjunction with our financial plan.

Scenarios and Planning

Unicharm uses RCP scenarios* as a basis from which to calculate estimated physical impacts. These include risks related to factories in coastal zones with rising sea levels, operating risks linked to supply chain disruption caused by cyclones and other disasters, the risk of falling GDP in equatorial regions due to heat waves, and the impact of increased raw materials costs stemming from delays in harvests of agricultural and other products and the development of forest resources as a result of changes in terrestrial ecosystems.

Third-Party

Assurance Report

Global warming will have a significant impact not only on the global environment but also on our business development. In order to observe the Paris Agreement, we will continue to proceed with a range of initiatives in cooperation with various stakeholders. Moreover, we believe that this situation, in which global warming is becoming an increasingly urgent problem, is also an opportunity for Unicharm to showcase its used disposable diaper recycling technology. By means of this technology, we will contribute to efforts such as forest conservation and decarbonization.

We believe that the most significant climate change-related impact on our business strategy will be our participation in the scientific approach to the COP21 Paris Agreement's reduction targets aimed at keeping global warming below an increase of 2°C. With our 2030 emissions reduction targets endorsed by the Science Based Targets initiative (SBTi), environmental consciousness has been promoted as part of the Company's product development strategy within the Marketing and R&D divisions, while plans incorporating both short- and long-term perspectives, including energy conservation activities and the adoption of renewable electricity, are being instituted as part of our strategy within the Manufacturing Division. We will continue to proceed with such measures to achieve the targets of Kyo-sei Life Vision 2030 by the year 2030 and Environmental Targets 2030 toward realizing our 2050 vision.

* RCP (Representative Concentration Pathway) scenarios set out several "representative concentration pathways" and predict the future climate for each pathway as well as allow the formulation of various socioeconomic scenarios that would lead to each of these concentration pathways.

Unicharm Group Sustainability Report 2023	Introduction	Sustainability Management	Kyo-sei Life Vision 2030	Environment	Society	Governance	External Partnerships and Evaluations	Third-Party Assurance Report	6 4 051 🕨 뉰

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

				Fin	ancial Consec			
					Degree of Impact		Degree of Impact	
	ions	Introduction of a GHG emissions trading scheme and implementation of raised carbon taxes	Higher factory operation costs due to the introductions of and increases in GHG emissions trading and carbon taxes	Higher operating costs due to introduction of carbon pricing and emissions trading	Major	Carbon pricing and other specific CO ₂ emissions reduction measures will not be implemented	Minor	Established reduction targets in Kyo-sei Life Vision 2030 and Environmental Targets 2030 and implemented measures to reduce total consumption
Transition	d regulati	GHG emissions	Mandatory reporting of GHG emissions	Need for mandatory and accurate reporting of emissions	Major	Reporting will not become mandatory	Minor	Continued to visualize GHG emissions and develop specific reduction methods by proceeding with the GHG Emissions Visualization Project
	ties, laws, an	Introduction of plactic	Compliance with regulations on petroleum-derived containers and packaging materials	Increase in product manufacturing costs due to Major tax enforcement		Taxes will not be enforced	Minor	Established reduction targets in Kyo-sei Life Vision 2030 and Environmental Targets 2030 and implemented measures to reduce total consumption
	Polic	Introduction of plastic waste regulations	Increase in costs due to mandatory use of renewable plastic	Disparity between supply and demand in the market for renewable plastic, soaring prices of raw materials, and higher product manufacturing costs	Major	Cost remains unchanged as reporting is not mandatory and the supply-demand balance remains stable	Minor	Developed a technology that recycles plastic waste from our factories and promoted effective use of plastic by converting the scraps (trim) from our manufacturing processes into recycled pellets
	Technology	Up-front costs associated with the transition to low carbon technology		Allocation of resources for the development of a system for visualizing the transition to low-carbon technology	Major	Continued use of conventional technology due to the lack of need for visualizing the transition to low-carbon technology	Minor	Continued to visualize GHG emissions and develop specific reduction methods by proceeding with the GHG Emissions Visualization Project
	Trai	Increase in energy prices	Change in retail price of electricity	Higher procurement costs associated with increased use of renewable electricity	Major	Transition on hold until renewable electricity costs decrease	Minor	Continued to proceed with measures to transition to the 100% use of renewable electricity for our business activities by 2030
S		Higher row motorials	Higher cost of naturally derived raw materials	Increased costs due to conversion from petroleum-derived materials to naturally derived materials	Major	Insignificant impact on costs due to the continued use of petroleum-derived materials	Minor	Established reduction targets for the use of petroleum-derived plastic under Kyo-sei Life Vision 2030 and implemented measures accordingly
Risk	Market	prices	Increase in pulp procurement costs	Increased procurement costs resulting from higher demand for certified pulp associated Major with forest conservation efforts		Insignificant impact on costs due to the use of non-certified pulp	Minor	Engaged in responsible procurement and procured product materials through emphasis on manufacturing and supply capabilities in accordance with the Basic Policy of Procurement and the Sustainable Procurement Guidelines
		Changes in consumer behavior Change in ethical awareness of consumers Generation 2 consumers Generation 2 consumers		Increases in ethical awareness and demand for low-GHG emissions products mainly among Generation Z consumers	Major	Continued awareness of the specific need for convenience	Minor	Appropriately disclosed information through the sustainability report, news releases, and other methods of disclosure
	Reputation	Criticism toward other sectors	Reputation risk as a company that uses pulp and other forest resources	Use of certified materials as a criteria for determining a company's commitment to environmental actions	Major	Use of certified materials is not a criteria for determining a company's commitment to environmental actions	Minor	Established 2030 targets for 100% procurement of certified pulp (PEFC- and CoC-certified) and certified palm in Environmental Targets 2030 and disclosed annual progress of these targets
	Acute	Intensification of Increase in costs associated with flood unseasonable weather damage		Suspension of operations due to supply chain disruptions resulting from major disasters related to large-scale typhoons and cyclones and weather anomalies	Major	Suspension of operations due to supply chain disruptions resulting from major disasters related to large-scale typhoons and cyclones and weather anomalies	Major	Conducted a medium- to long-term water risk assessment and related measures using the Water Risk Atlas (Aqueduct). Currently, water stress has been rated as "extremely high" at 41 of the Group's factories while an additional nine factories have been designated as having "high" water stress
Physical	Physical Chronic	Excess demand for water	Higher operating costs due to rising cost of using water	Suspension of operations due to unstable supply of forest-derived raw materials (including pulp and paper) arising from the depletion of water resources as well as discon- tinuation of product sales due to inadequate supply of water used to manufacture Unicharm's wet wipes and partner animal (pet) food	Major	Reduction in operations due to unstable supply of forest-derived raw materials (including pulp and paper) arising from the depletion of water resources as well as higher product prices and risk of unstable supply due to increased cost of using water to manufacture Unicharm's wet wipes and partner animal (pet) food	Moderate	Conducted a medium- to long-term water risk assessment and related measures using Aqueduct. Currently, water stress has been rated as "extremely high" at 41 of the Group's factories while an additional nine factories have been designated as having "high" water stress

Unicharm Group Sustainability Report 2023	Introduction	Sustainability Management	Kyo-sei Life Vision 2030	Environment	Society	Governance	External Partnerships and Evaluations	Third-Party Assurance Report	n (052) 🕇
--	--------------	------------------------------	-----------------------------	-------------	---------	------------	--	---------------------------------	-------------

						4.0°C Scenario	Degree of Impact		
Opportunities Resource efficiency		Efficient use of transportation	Reduction of CO ₂ emissions through collaborations with other companies and the use of trains and ships for transport	Potential for reductions to cost and CO ₂ emissions through the efficient use of resources by promoting modal shift and increasing the transportation volume to reduce energy use and improve energy efficiency at production sites and in logistics processes	Major	Potential for reductions to cost and CO ₂ emissions through the efficient use of resources by promoting modal shift and increasing the transportation volume to reduce energy use and improve energy efficiency at production sites and in logistics processes	Major	Reduced the number of vehicles required to transport disposable diaper materials by 50% through a modal shift from truck deliveries to marine transport with large-capacity, 40-foot containers	
	ficiency	Efficient production and distribution processes	Reduction of CO ₂ emissions through changes in and more efficient use of energy	Potential for reductions to cost and CO: emissions through the efficient use of resources by engaging in activities to recycle waste from factories and switching to the use of compressed packaging	Major	Potential for reductions to cost and CO ₂ emissions through the efficient use of resources by engaging in activities to recycle waste from factories and switching to the use of compressed packaging	Major	Made efficient use of resources by promoting activities to recycle waste from factories, reusing the remaining scraps from packaging materials as a raw material for packaging, and using absorbent materials in the components of other products	
	Resource e	Use of recycling methods	 Expanded use of used disposable diaper recycling technology and increased opportunities to absorb costs Development of practical applications for our sophisticated used disposable diaper recycling technology Growing demand for products with minimal impact on the environment 	Greater endorsement of and demand for our products made of recycled pulp due to recognition among customers for our recycling of used disposable diapers	Major	Greater endorsement of and demand for Unicharm products made of recycled pulp due to recognition among customers of our recycling of used disposable diapers	Major	In Japan, established a system that recycles collected used diapers by washing and separating them and turning them into pulp that is equally as safe and hygienic as unused pulp. In June 2022, we began testing the use of <i>Lifree</i> disposable adult diapers, which use recycled materials for their absorbent paper layer, at certain nursing care facilities in Kagoshima Prefecture	
		Reduction of water use and consumption	Design of environmentally friendly products and improvements to opera- tional efficiency at factories	Greater emphasis on maintaining cleanliness and the resulting increase in demand for hygiene products will spur a growth in demand for wet wipes, as hands can be cleansed without the use of water	Major	Increasing demand for hygiene products resulting from greater emphasis on maintaining cleanliness	Moderate	Proceeded with efforts to recycle and purify water and reduce the water intake at our production sites based on our Groupwide target of reducing water intake by 1% from the previous year	
	Energy sources	Use of renewable electricity	e of renewable Realization of carbon neutrality by 2050 and cutting of energy costs Ensured supply of renewable expediting the installation or generators at factories through		Major	Ensured supply of renewable electricity through the installation of solar power generators at factories throughout the Group	Moderate	Installed solar power generators at eight factories in Japan and six factories overseas	
	ervices	Development and expansion of lineup of low-carbon products and services	 Development of products with a view to reducing GHG emissions Increase in purchases due to the inclusion of GHG indicators Promotion of the use of environmentally friendly products and development of environmental labels 	Purchase of low-emission, environmentally friendly products will become the standard due to increases in ethical awareness, particularly among Generation Z consumers	Major	Purchase of low-emission, eco-friendly products will become the standard due to increases in ethical awareness, particularly among Generation Z consumers	Minor	 Developed a system to visualize raw materials that generate low CO₂ emissions through the GHG Emissions Visualization Project Continued to develop and market products conforming to the SDGs Theme Guideline, an internal guideline for contributing to sustainability 	
Products and ser	Products and se	Development of new products and services through R&D and innovation	Expansion of market share through the development of new services and the design of environmentally friendly products	Potential for cost reductions and revenue growth through the development of new products and technologies due to an anticipated increase in demand for environmentally friendly products and services	Major	Potential for cost reductions and revenue growth through the development of new products and technologies due to an anticipated increase in demand for environmentally friendly products and services	Major	Continued to develop and market products conforming to the SDGs Theme Guideline, an internal guideline for contributing to sustainability	
		Leveraging of ability to diversify business activities Rollout of products that embrace our "NOLA & DOLA" corporate philosophy		Potential for the development of products that embrace our "NOLA & DOLA" corporate philosophy through the achievement of Kyo-sei Life Vision 2030 targets	Major	Potential for the development of products that embrace our "NOLA & DOLA" corporate philosophy through the achievement of Kyo-sei Life Vision 2030 targets	Major	Continued to develop and market products that embrace our "NOLA & DOLA" corporate philosophy through efforts to achieve the Kyo-sei Life Vision 2030 targets	

Unicharm Group Sustainability Report 2023	Introduction	Sustainability Management	Kyo-sei Life Vision 2030	Environment	Society	Governance	External Partnerships and Evaluations	Third-Party Assurance Report	6 4 053 5 🕇

				Fin	ancial Consec			
		Evaluation Criteria	Assessed Financial Impact	2°C (Toward Realizing 1.5°C) Scenario	Degree of Impact	4.0°C Scenario	Degree of Impact	Progress of Unicharm's Measures
tties	Products and services	Adaption to changes in consumer preferences	 Favorable reassessment by consumers of the value of products with minimal impact on the environment Gaining of excellent position to secure a competitive edge for our products through a reputation for meeting customer expectations in a timely manner 	Expansion of the scope of environmentally friendly products made of certified materials will enable us to meet expectations for ethical consumption	Major	Expansion of the scope of environmentally friendly products made of certified materials will enable us to meet expectations for ethical consumption	Major	Continue to develop and market products that embrace our "NOLA & DOLA" corporate philosophy through efforts to achieve the Kyo-sei Life Vision 2030 targets
Opportunit	Markets	Tapping into new markets	 Promotion of the use of environmen- tally friendly products Promotion of the use of products made of certified materials 	Greater endorsement of our environmentally friendly products made of recycled pulp and certified materials	Major	Lack of potential for the diffusion of environ- mentally friendly products and products made of certified materials	Minor	Expand 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	Reduction of electricity useReduction of raw material use	Accelerated transition to renewable electricity by working together with suppliers and incorporate GHG emissions visualization into our product development in a timely manner	Major	Transition to the use of renewable electricity by working together with suppliers and incorporate GHG emissions visualization into our product development	Moderate	Establish calculation rules and systems for the GHG Emissions Visualization Project and continue to collect primary data from suppliers

Definitions of Degree of Impact

Major: Impact on the Group's business and profits will likely be significant Moderate: Impact on the Group's business and profits will likely be slightly large Minor: Impact on the Group's business and profits will likely be insignificant

Conforming to Regulations and Standards

With the announcement of the 1.5°C target at COP26, Unicharm is looking to adopt this target in place of the 2°C target previously approved by the SBTi.

In Japan, we are prioritizing capital expenditure that allows us to aim for the target of an annual 1% increase in energy efficiency as stipulated in the country's Act on Rationalizing Energy Use.

Financial Optimization Calculations

For investment in energy conservation, we are expanding our criteria for assessing expected depreciation periods, with the intention of facilitating assessment of return on investment and increasing investment opportunities.

Budget Dedicated to Research and Development of Low-Carbon Products

We are actively investing in the GHG Emissions Visualization Project to facilitate accurate assessments of GHG emissions, which vary according to the materials and production methods used, and enabling developers to appropriately select low-carbon materials by urging suppliers of raw materials to provide primary information concerning GHG emissions for each material.

P.045 GHG Emissions Visualization Project

Unicharm Group	later duration.	Sustainability	Kyo-se
Sustainability Report 2023	Introduction	Management	Vision

ei Life 2030

Governance

Third-Party

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 (2°C [1.5°C] target scenario and 4°C scenario) for the period up to 2050, using information from sources such as the IPCC's Climate Change Report and the IEA's World Energy Outlook 2021.

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 a 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.

P.128 Business Risks

Benchmarks and Targets

Environment

To develop a specific action plan for mitigating climate change, Unicharm endorsed the international SBTi in May 2017 and formulated a CO₂ reduction plan up to 2045 by conducting simulations. In June 2018, Unicharm became the 17th company in Japan to have its reduction plan certified for consistency with the 2°C target.

Working toward these targets, we have set specific long-term CO2 reduction targets for both Scope 1 (direct emissions: from our own factories, offices, vehicles, etc.) and Scope 2 (indirect energy-related emissions: energy consumed by Unicharm, such

as electricity). Furthermore, we are looking to adopt the 1.5°C target announced at COP26 in place of the current 2°C target.



DRIVING AMBITIOUS CORPORATE CLIMATE ACTION

SBTi CO₂ Emissions Reduction Targets

By 2030, Unicharm aims to achieve reductions of 90% for Scope 1 and 30% for Scope 2, both compared with 2016 levels. These targets function as our management indicators.

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

If regulations are strengthened in order to achieve the goals of the Paris Agreement, we believe that 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. 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, we believe that 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 CO₂ emissions associated with raw materials procurement" (Scope 3, Category 1), "reducing CO₂ emissions in manufacturing" (Scope 1 and Scope 2), and "reducing CO₂ emissions associated with disposal of used products" (Scope 3, Category 12), which account for a large proportion of CO₂ emissions over the product life cycle, have been set as our targets for climate change response. For Scope 1 and Scope 2, we run energy conservation activities for the workplace with promoters of environmental activities at each site four times a year, and implement and monitor the progress of annual plans. For CO₂ emissions from purchased materials that form the bulk of our Scope 3 emissions, we perform LCAs (life cycle assessments) to calculate CO₂ 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 CO₂ emissions.

P.046 CO₂ Emissions throughout the Supply Chain (Overall Picture of Scopes 1 to 3)

P.046 CO₂ Emissions from Business Activities (Scope 1 and Scope 2)

- P.046 Reducing CO₂ Emissions Associated with Raw Materials Procurement (Scope 3, Category 1)
- P.048 Reducing CO₂ Emissions through the Recycling of Used Disposable Diapers