

Biodiversity

Biodiversity Conservation

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Our Basic Approach and Strategy

By understanding the effects of business activities on biodiversity, we strive to promote sustainable business development and resource use that leads to a “future society in harmony with nature.” Particularly for paper, pulp, and other forest resources, which we use in large amounts, we have established the Forest-Derived Raw Materials Procurement Guidelines, and we procure materials from managed forests, strive to eliminate the use of illegally logged timber, and strive to protect the rights of local residents and workers to contribute to the mainstreaming of biodiversity.

In Environmental Targets 2030, announced in May 2020, we declared “realizing a society with zero deforestation related to the purchasing of timber” as our 2050 vision for the key environmental issue “helping prevent deforestation (response to procurement-related issues),” with a view to conserving biodiversity. To that end, we have established goals to be achieved by 2030, ensuring the traceability of pulp and palm oil to their origin, transitioning to 100% use of certified materials, and promoting the recycling of used disposable diapers.

P.104 Forest-Derived Raw Materials Procurement Guidelines

Risks and Opportunities Related to Biodiversity

Our risks include (1) the possible instability of raw materials procurement (particularly pulp, paper, palm oil, and agricultural products), procurement costs, and operating rates due to negative impacts on biodiversity and (2) the likelihood that, due to the impact on biodiversity during operations at our sites, costs may be incurred to restore sites to their original state, operations may be suspended, and consumers may be reluctant to buy our products. On the other hand, in terms of opportunities, we can expect (1) the proactive utilization of certified sustainable materials to lead to a stable supply of raw materials and the reduction of costs and (2) sales to expand through the provision of products that focus on the importance of biodiversity in collaboration with retailers.

▶ Helping Prevent Deforestation (Response to Procurement-Related Issues) under Environmental Targets 2030

Implementation Items		2021 Results	2022 Targets	2022 Results	2023 Targets	2030 Targets	2050 Vision Targets
Ensuring traceability to pulp and palm oil production locations (country/region)	Forest-derived raw materials*1	97.0%	98.0%	97.1%	98.0%	Completed	Realizing a society with zero deforestation related to the purchasing of timber
	Palm oil	77.2%	80.0%	72.2%	80.0%		
Expanding the use of certified pulp (PEFC- and CoC-certified)	Percentage of certified factories*2	52.0%	60.0%	56.0%	64.0%	100%	
	Percentage of certified materials procured	76.0%	75.0%	72.3%	75.0%		
Expanding the use of certified palm oil (RSPO-certified)	—	77.2%	80.0%	72.2%	80.0%	100%	
Promoting the recycling of used disposable diapers	—	Development ongoing	Development ongoing	2*3	2	Rolled out in at least 10 municipalities	

*1 Percentage of raw materials derived from forest resources for which traceability has been established to their place of origin (country and region), in addition to third-party certified materials. Forest-derived raw materials include pulp, tissue, separators, and airlaid pulp.

*2 Percentage of Unicharm factories that have acquired CoC (chain of custody) certification

*3 In 2022, we started operating recycling facilities in two municipalities, Shibushi City and Osaki Town in Kagoshima Prefecture (conducted demonstration experiments on the collection of used disposable diapers in Higashi-Yamato City in 2020 and Machida City in 2021).

Management Structure

At the quarterly ESG Committee meetings chaired by the president & CEO, plans and progress on important biodiversity-related issues are shared and reported. Specific plans are reported in accordance with Environmental Targets 2030 and Kyo-sei Life Vision 2030, based on the recommendations of the Task Force on Climate-related Financial Disclosures (TCFD). We identify and review biodiversity problems and material issues through open discussions with outside experts to formulate issues and set indicators for our activities. For our forest-derived raw materials, the ESG Division and Procurement Department are working together to promote a switch to third-party certified raw materials. The progress of these activities is shared and reported at ESG Committee meetings and reported periodically to the Board of Directors.

We also verify the management of temporary industrial waste storage facilities and processors and measure emissions and wastewater in order to minimize the impact on biodiversity in the areas surrounding our manufacturing facilities.

P.010 ESG Promotion Structure

Initiatives and Results

Open Discussions with Other Experts

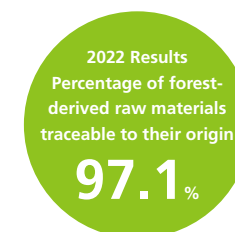
In 2019, we held a meeting with the World Wide Fund for Nature (WWF) Japan regarding the major social issues we must overcome over the medium to long term. We received a range of views on climate change (including energy conservation, renewable energy, and carbon pricing), plastic pollution (the current state and future developments), and deforestation (circumstances and developments going forward surrounding pulp, paper, and palm oil), which were incorporated into the formulation of Environmental Targets 2030. Views were shared on the topic of deforestation in particular, such as the importance of researching the place of origin of certified forest materials and disclosing these results and expanding the scope of our policies and guidelines to help ensure the sustainability of forests.

P.034 Environmental Targets 2030

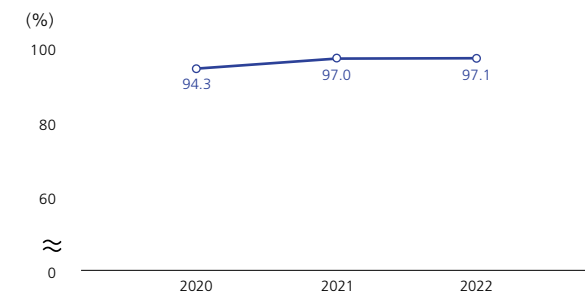
Ensuring the Traceability of Forest-Derived Raw Materials to Their Origin

At Unicharm, we promote the procurement of sustainable forest-derived raw materials. In 2022, 97.1% of the Group's forest-derived raw materials (pulp, tissue, separators, and airlaid pulp) were traceable to their origin.

► Environmental Targets 2030: Percentage of forest-derived raw materials traceable to their origin



► Percentage of Forest-Derived Raw Materials Traceable to Their Origin



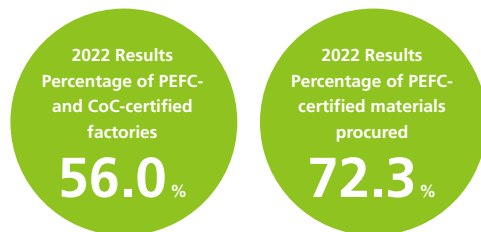
P.066 Forest-Derived Raw Materials

Expanding the Use of Certified Pulp (PEFC- and CoC-Certified)

We are working on a Groupwide basis to acquire CoC certification under the Programme for the Endorsement of Forest Certification (PEFC). With the certification of the Mie Factory in 2022, 14 out of our 25 eligible factories have been CoC-certified. As of December 31, 2022, 56.0% of our factories were CoC-certified, while 72.3% of the pulp we procure was PEFC-certified. PEFC-certified labels have been included on the packaging of *Moony Natural* and *Moonyman Natural* (Japan), *MamyPoko* (South Korea), *MamyPoko Pants* and *PETPET Pants* (Malaysia), and other disposable baby diaper products produced at our CoC-certified factories around the world. Moreover, we endeavor to promote awareness of Unicharm's initiatives among consumers by posting information on our products containing pulp and paper made from appropriately managed forest-derived raw materials on social media and our corporate website.



► Environmental Targets 2030: Expanding the use of certified pulp (PEFC- and CoC-certified)



► List of CoC-Certified Factories

Year of Certification	Factory
2020	Indonesia (Karawang Factory No. 1 and No. 2, East Java Factory)
	Thailand (Wellgrow Factory)
	Japan (Fukushima Factory, Shizuoka Factory, Shikoku Chuo Factory, Shikoku Onohara Works, Kyushu Factory)
2021	South Korea (Gumi Factory)
	Malaysia (DSG Malaysia Factory)
	United States (Hartz Pleasant Plain Factory)
	Taiwan–Greater China (Junan Factory)
2022	Japan (Mie Factory)

P.024 Construction of Value Chains That Take Account of Sustainability

Holding of Forest Certification Joint Promotion Ceremony with the SGE and PEFC Japan

In November 2022, we concluded a memorandum of understanding (MoU) with the SGE and PEFC Japan to jointly promote the following six measures concerning sustainable forest use and protection.



Forest Certification Joint Promotion Ceremony

1. Increase use and exposure of PEFC labels
2. Promote sustainable forest use along the supply chain
3. Conduct activities that contribute to the conservation of forest resources
4. Enhance awareness of the benefits of using PEFC-certified materials
5. Give full consideration to the use of PEFC-certified paper for paper other than that used for Unicharm products
6. Introduce PEFC-certified products through our corporate website, newsletters, and social media, and the intranet used by PEFC member companies

In addition, in October 2022, Unicharm took part in a tree-planting event held by the SGE and PEFC Japan in an effort to “conduct activities that contribute to the conservation of forest resources.”



Tree-planting event

Expanding the Use of FSC®-Certified Materials

Upon exchanging views with the Forest Stewardship Council (FSC®) Japan,* in October 2017, we declared support for the Vancouver Declaration for the UN SDGs and FSC® Certification and are working to expand the use of FSC®-certified materials.

Since 2019, we have been switching to FSC®-certified materials for the paper packaging and cardboard used for masks, tampons, cosmetic cotton, cat food, and other products sold in Japan.



Paper packaging made from FSC®-certified materials

In 2021, Unicharm also released its *MamyPoko Premium Baby Wipes* made of FSC®-certified materials in Taiwan–Greater China.



* An independent non-profit organization that operates an international forest certification system with the goal of expanding responsible forest management around the world

Initiatives to Raise Awareness of FSC® Certification

In collaboration with the FSC® Japan, an NPO that promotes public awareness of the FSC®, Unicharm sponsored the FSC® Education Program “Safeguarding the Forest with the FSC® Label—Let’s try to learn, understand and put into action—,” held from December 2021 to March 2022, and the 3rd FSC® Award, held in April 2022. With the SDGs being increasingly incorporated into school curriculums in recent years, junior high and high school students are becoming more interested in environmental and social issues. By enabling students to gain an even more accurate and deeper understanding of forest conservation and FSC® certification, while encouraging them to share ideas on ways to promote awareness of the FSC® label, the program aims to have everyone work together toward the realization of a sustainable society.



Percentage of Office Paper Made from Certified Materials

We value the importance of environmental awareness when it comes to the paper used at our offices as well and, in 2022, 99.9% of the office paper we used was made from environmentally friendly materials (of which, 97.7% was 100% recycled paper and 2.2% was made from certified materials).

Providing and Expanding Our Line of Products Using Plant-Derived Components

Unicharm is enhancing its development and supply of products using plant-derived components.

P.043 Promoting Sales of Products That Avoid the Use of Petroleum-Derived Plastic

Providing and Expanding Our Line of Organic Products

As a part of our initiatives to create environmentally friendly products, we are expanding the range of products containing organic cotton. Organic cotton is manufactured in a way that minimizes its impact on the environment, including soils and water quality.

In Japan, along with expanding our lineup of *Moony Natural* and *Moonyman Natural* disposable baby diapers and *Sofy Organic Cotton Sanitary Pads*, we released *Natural Moony* baby wipes, *Sofy Organic Cotton Ultra-Sound-Sleep Pants*, and other products using organic cotton in 2022.

Number of Products Using Organic Cotton (Japan)

	Number of Products
2020	22
2021	23
2022	33



MamyPoko Royal Soft Organic Cotton (Indonesia)

In August 2022 in Indonesia, Unicharm released *MamyPoko Royal Soft Organic Cotton*, a disposable baby diaper that uses organic cotton as part of the top sheet, which comes into contact with babies’ skin. This product uses only organic cotton certified with the Organic Content Standard (OCS) 100 of Control Union Certifications B.V., which certifies that the cotton is grown naturally without the use of any pesticides.



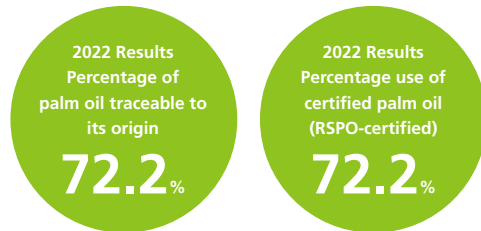
Ensuring the Traceability of Palm Oil to Its Origin and Expanding the Use of Certified Palm Oil (RSPO-Certified)

At Unicharm, we promote the procurement of third-party certified palm oil. The amount of palm oil procured and the percentage of palm oil traceable to its origin for the palm oil used in Unicharm's partner animal (pet) food products are as follows. In 2022, Unicharm's procurement of RSPO-certified palm oil based on the mass balance system* was 119 tons, while 72.2% of the palm oil used was traceable to its origin. Going forward, Unicharm will continue sustainable procurement activities while confirming quality and procurement routes to switch all our palm oil purchases to RSPO-certified oil.

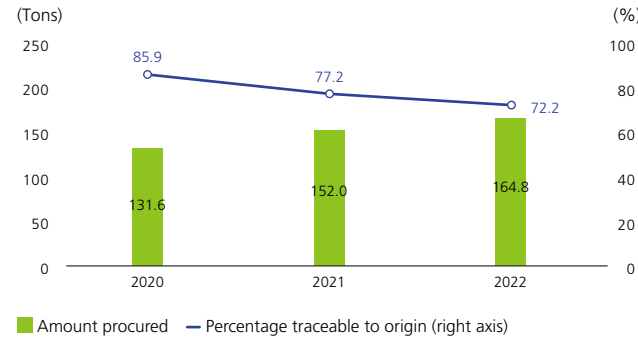


* A certification model in which certified oil produced at certified farms is mixed with other uncertified oil during the distribution process. Although the certified oil physically contains uncertified oil, the certified farms and the amount of certified oil purchased are guaranteed.

► Environmental Targets 2030: Ensuring the traceability of palm oil to its origin and expanding the use of certified palm oil (RSPO-certified)



► Amount of Palm Oil Procured and Percentage of Palm Oil Traceable to Origin



P.107 Sustainable Palm Oil Procurement

Recycling of Used Disposable Diapers

Unicharm's used disposable diaper recycling system is one where the used disposable diapers collected are washed and separated, after which the pulp taken out undergoes a unique ozone treatment process to kill the bacteria contained in the excrement, making it as hygienic and safe as virgin pulp. In June 2022, we began testing the use of *Lifree* disposable adult diapers that use recycled materials as part of its absorbent paper at certain nursing care facilities in Kagoshima Prefecture.

As of December 31, 2022, Unicharm operates used disposable diaper recycling facilities in Shibushi City and Osaki Town of Kagoshima Prefecture.

While wood is necessary to manufacture virgin pulp, a material used in disposable diapers, 100 trees could be preserved by recycling the disposable adult diapers of 100 people over a period of one year.



► Environmental Targets 2030: Promoting the recycling of used disposable diapers



P.027 Development of Eco-Friendly Products / Expanding Our Line of Recycled Models

Managing Chemical Substances in View of Their Impact on the Ecosystem

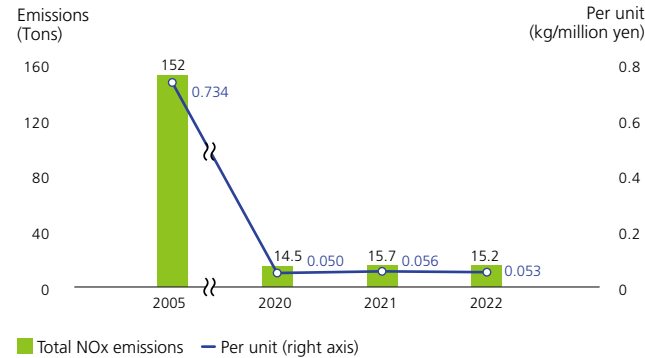
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Unicharm is promoting measures to control the hazardous chemical substances from its factories by considering their impact on not only people but ecosystems as well. We have formulated guidelines and a dedicated department investigates toxicity and legal compliance.

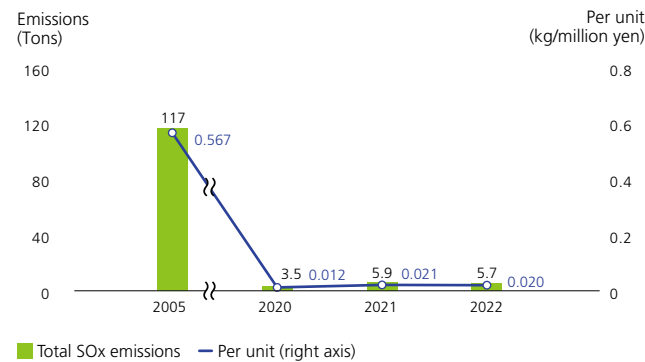
- We are working to reduce SOx (sulfur oxide) and NOx (nitrogen oxide) emissions, which are required to be measured as a response to air pollution, through means such as improving the operational efficiency of boilers and other equipment.
- With regard to toluene, a substance subject to the Pollutant Release and Transfer Register (PRTR) in Japan, we are gradually shifting to the use of toluene-free thinner.
- At Unicharm, there are no polychlorinated biphenyl (PCB)-containing transformers or condensers, as they were all disposed of in December 2020.

P.067 Pollutant Release and Transfer Register (PRTR) Substances (Japan)

► Unicharm's NOx Emissions (Japan)



► Unicharm's SOx Emissions (Japan)



P.066 NOx and SOx Emissions (Japan)

Protection of the Ozone Layer (Japan)

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We manage chlorofluorocarbons (CFCs) in compliance with laws and regulations and conduct regular inspections in an effort to protect the ozone layer.

P.067 Ozone-Depleting Substances (Japan)

Preventing Water Pollution, Soil Contamination, and Offensive Odors (Japan)

With respect to water quality, we strive to prevent pollution by adhering to voluntary standards, the Water Pollution Control Law, and the Law Concerning Special Measures for Conservation of the Environment of Seto Inland Sea. Biochemical oxygen demand (BOD) and chemical oxygen demand (COD) emissions are measured and evaluated for conformity to Unicharm's proprietary standards and the provisions of relevant laws and regulations for which there were no violations in 2022.

Moreover, to prevent soil contamination and offensive odors, we conduct regular measurements according to in-house standards. In 2022, there were no accidents associated with soil contamination or offensive odors.

P.067 Biochemical Oxygen Demand (BOD) and Chemical Oxygen Demand (COD) (Japan)