

Pollution Prevention and Resource Utilization

Our basic approach and strategy

Many Unicharm products are consumables essential to a clean and healthy lifestyle. At the same time, our business development is closely related to the global environment through our use of natural resources and the generation of waste. Based on the above, we believe our role and responsibility in reducing environmental impact are significant and continue to expand with each passing year as our business grows.

We therefore worked in line with our “Basic Environmental Policy” and “Eco Plan 2020” until the end of 2020 and will strive to prevent pollution and work toward effective utilization of resources in accordance with the “Basic Environmental Policy,” “Environmental Targets 2030” and “Kyo-sei Life Vision 2030” from 2021 onward.

At ESG Committee meetings held four times a year and chaired by the Representative Director, we also work through PDCA cycle aimed at achieving our goals including the confirmation of progress on environmental activities.

Management structure

Four times a year at the ESG Committee meeting chaired by the Representative Director, plans and progress on environmental activities, quality issues, social issues and other important governance matters are shared. Specific plans are reported using “Eco Plan 2020” as the baseline, in line with the recommendations of the Task Force on Climate-related Financial Disclosures (TCFD) announced in June 2017.

Pollution prevention activities and controls are carried out in

accordance with environmental laws and regulations and ISO14001. Three types of environmental audits are implemented in order to maintain and improve the level and performance of activities and controls:

- (1) regular audits in conformance with ISO14001-compliant environmental management systems,
- (2) regular audits focused on confirmation of compliance with laws and regulations and
- (3) onsite audits at industrial waste processing partners in order to confirm appropriate practices.

“Eco Plan 2020” goals and results of reduction of waste (from “Eco Plan 2020”)

	Implementation items	2015 results	2016 results	2017 results	2018 results	2019 results	2020 targets	2020 results	Judgment
(1) Reduction of waste	■ Recovery technologies for used disposable diapers (Japan)	Established technologies	Starting with local governments	Start testing	Cycle model establishment	Cycle model operation start	Full-scale operations	Installation of actual equipment completed	△
	■ Recycling of product loss (Overseas)	2,000 tons	2,600 tons	2,600 tons	4,300 tons	6,000 tons	4,000 tons	5,700 tons	○

Targets relating to waste and emissions reduction (from “Environmental Targets 2030” and “Kyo-sei Life Vision 2030”)

Details	Target year	Target
Reducing plastic used for packaging materials	2030	30% waste intensity reduction compared to 2019
Proportion of virgin petroleum-derived plastics composed in plastics	2030	50% reduction compared to 2020
Development of products achieving “3R+2R” using an innovative Unicharm approach	2030	Over 10
Development of products that contain no petroleum-derived plastic	2030	Over 10 stock-keeping units (SKU)
Eliminating the use of plastics in sales promotional items	2030	Reduced to effectively zero at all local management units (LMU)
Raising awareness about proper disposal of used products	2030	Rolled out at all local management units (LMU)
Number of recycling facilities set up for used disposable diapers	2030	Over 10

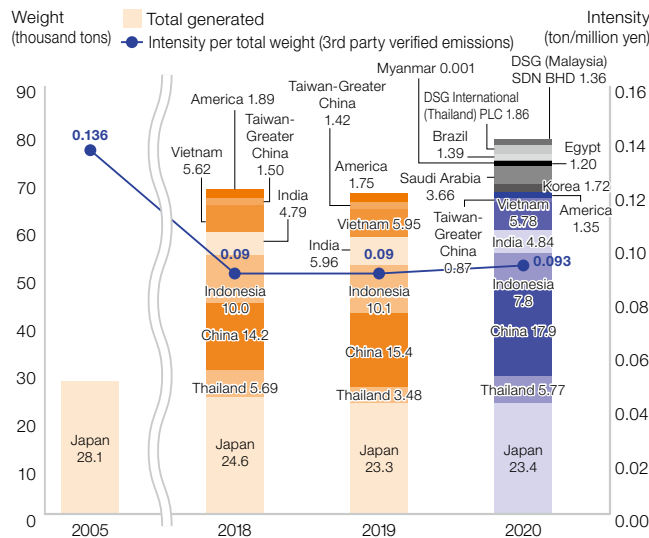
Waste disposal reduction and effective utilization of resources

We promote waste disposal reduction and effective utilization of resources through activities focused on the following initiatives:

- We are continuing to conduct the experimental-demo of used disposable diaper recycling.
Example: ongoing trials in Shibushi City and Osaki Town, Kagoshima Prefecture
- We are recycling factory waste within the Unicharm Group.
Example: using scraps produced in the manufacturing process of disposable diapers (both in Japan and overseas) as the raw material for cat continence care products (Paper-sand®)
- We are aiming to achieve zero emissions at our main production sites in Japan (four sites). We are contributing to CO₂ reduction by reducing landfilling of industrial waste and shifting from thermal recycling to material recycling.
Example: At our Unicharm Products Shikoku Chuo Factory, paper tubes (the paper cores from rolled materials) that would previously have been thermally recycled are now returned to the suppliers for reuse, leading to reuse of approximately 10 tons per year.
- While we are making efforts to improve manufacturing quality and striving to limit waste production, certain waste products cannot be disposed of within our factories. In these cases, we look for waste processors who can minimize environmental impact from 3Rs (reduce, reuse, recycle) perspective and consign the waste to them for recycling.

* We have begun data collection for sites not included under the scope of non-financial auditing and can now provide information on waste generated for all sites.

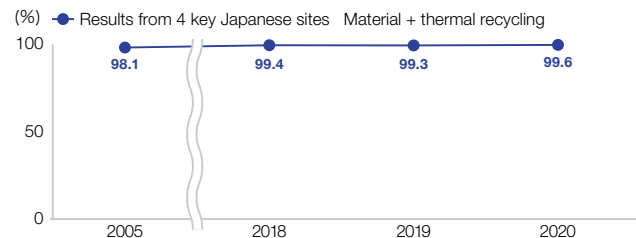
Waste disposal volume



Recycling rate

In 2020, we continued to maintain a high recycling rate of over 99%. In addition to our four principal sites within Japan, an increasing number of other plants have achieved zero emissions status by attaining a recycling rate of greater than 99%.

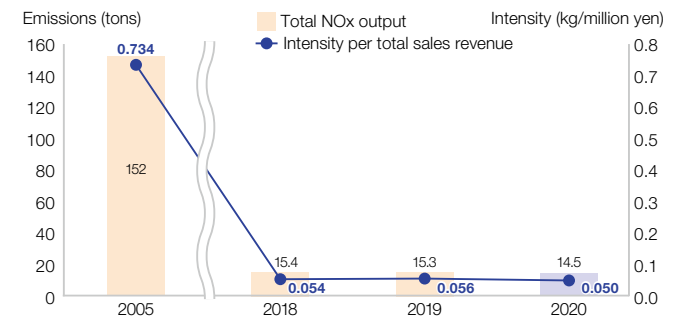
Recycling rate (Japan)



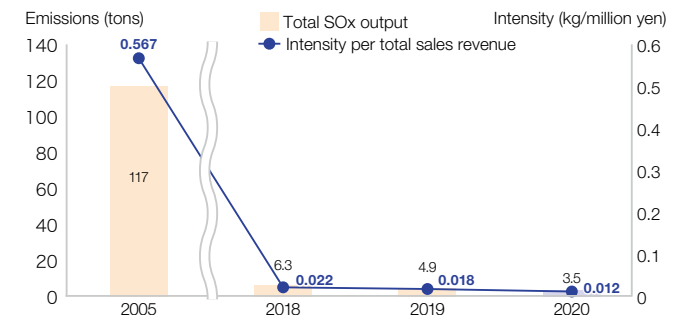
Measures against airborne pollutants

We are working to reduce NOx (nitrogen oxide) and SOx (sulfur oxide) emissions through means such as increasing operation efficiency for boilers and other equipment.

Unicharm's NOx emissions (Japan)



Unicharm's SOx emissions (Japan)



■ Protection of the ozone layer

We manage CFCs in compliance with laws and regulations and conduct regular inspections in working to protect the ozone layer.

Ozone depleting substances (Japan)

Substance	Business site	Amount possessed (tons)	Use
Halon (Class 1)	Unicharm Products Shizuoka Factory	1.6	Fire retardant
	Unicharm Products Shikoku Factories (Kagawa)	0.070	
	Unicharm (other development sites, etc. Kagawa)	0.00010	
HCFC (Class 1)	Unicharm Products Fukushima Factory	2.6	Refrigerant
	Unicharm Products Shizuoka Factory	3.6	
	Unicharm Products Kyushu Factory (Fukuoka)	2.3	
	Unicharm Products Shikoku Factories (Kagawa)	3.7	
	Unicharm Kokko Non-Woven Co., Ltd. (Ehime/Kagawa)	0.65	
	Unicharm Pet Care Co., Ltd. (Hyogo/Mie/Saitama)	0.93	
	Peparlet Co., Ltd. (Shizuoka)	0.038	
Unicharm (other development sites, etc. Kagawa)	0.86		
CFC	Unicharm (other development sites, etc. Kagawa)	0.0010	

* Reported for company properties based on the Act on Rational Use and Proper Management of Fluorocarbons

■ [Korea and Japan] Introduction of biomass plastics in response to marine plastic problems

Our local subsidiary in Korea, LG Unicharm, began an initiative in 2019 to replace petrochemical plastics with biomass plastics for some sanitary napkin products with the aim of addressing plastic problems and reducing CO₂ at disposal.

“La Verte Plante” is Unicharm Group’s first sanitary napkin to adopt the use of biomass plastic (a backsheet film containing bioresin derived from sugar cane). With organic cotton used in its topsheet, this product is made from a high proportion of plant-derived materials.

In Japan, we have adopted environmentally friendly packaging for our “Natural Moony (Tape type) Newborn(5-diaper trial pack)” widely available in baby stores. This packaging is made using recycled paper and plant-derived bioplastics and has been designed so that it can be disposed of as waste paper.



“La Verte Plante”



“Natural Moony (Tape type) Newborn (5-diaper trial pack)”

■ [Japan] Participation in “Plastics Smart” Campaign organized by Ministry of the Environment of Japan

Unicharm endorsed and participated in activities for the “Plastics Smart” campaign. The Ministry of the Environment of Japan launched the campaign in 2018 to support the implementation of initiatives through the cooperation of diverse bodies including corporations, local governments, individuals and NGOs aimed at solving the global problem of plastics pollution in the oceans.



Plastics Smart (Japanese only)
<http://plastics-smart.env.go.jp/>

■ [Japan] Introduction of activities to recycle plastic from factory waste

Unicharm recycles plastic from the waste generated in our factories. We turn scraps (trim) generated in manufacturing processes into pellets for recycling to promote the efficient use of plastic.



■ [Japan] Conclusion of an agreement with Ministry of the Environment of Japan as “Re-Style Partner Company” towards the building of a recycling-based society

We have participated in the Ministry of the Environment of Japan-sponsored “Re-Style FES!” and endeavor to promote consumer “3Rs (Reduce, Reuse, Recycle) activities” toward the building of a recycling-based society. Through these activities, we have signed an agreement as a “Re-Style Partner Company” and are continuing to work with the Ministry of the Environment of Japan to broaden the public’s understanding of and empathy toward “3Rs behaviors.” Going forward, we will continue to work together with the Ministry of the Environment of Japan to promote initiatives for building a recycling-based society.

■ [Japan] Prevention of water pollution, soil contamination and offensive odor

We strive to prevent pollution by control according to laws and regulations and in-house standards. For water quality, we comply with the Water Quality Pollution Control Act and the Law Concerning Special Measures for Conservation of the Environment of Seto Inland Sea. To prevent soil contamination and offensive odor, we conduct regular measurements according to in-house standards.

■ [Japan] Initiatives to reduce the use of hazardous chemical substances (waste)

Unicharm has established measures to control its use of chemical substances that are harmful not only to people but ecosystems as well. We have formulated guidelines and a dedicated department investigates toxicity and legal compliance.

Polychlorinated biphenyl (PCB) storage situation

Certain business sites store small quantities of PCB while awaiting its processing for disposal. Compliance assessments on storage conditions for stored PCB are carried out regularly and no abnormalities have been found.

Pollutant Release and Transfer Register (PRTR) substance management

With regard to toluene, we are gradually shifting to the use of toluene-free thinner.

PRTR substance management

	Toluene (t/year)	Ethylene oxide (kg/year)	Dioxin (mg-TEQ/year)
2018	28.3	4.0	0.00010
2019	27.2	4.0	0.00020
2020	16.7	13.7	0.00002