

Circular Economy

Approach and Policy

In line with global trends, for us to be able to create a more sustainable society and achieve sustainable corporate growth, we must shift to a circular economy-type business model whereby we can achieve growth without having a serious impact on the environment. Otsuka group recognize that using the fossil resources-derived materials and waste discharge to the natural environment as environmental impacts that should be reduced to zero. We are committed to eliminating fossil resources-derived materials and achieve zero waste*1 as our vision. We will also continue to enhance resource efficiency throughout our entire value chain and build a harmonious and sustainable relationship with all resources, including biological resources.

*1 Approach to reduce waste discharge (simple incineration and landfill disposal) to the natural environment to zero and utilize all resources effectively

Our Goals

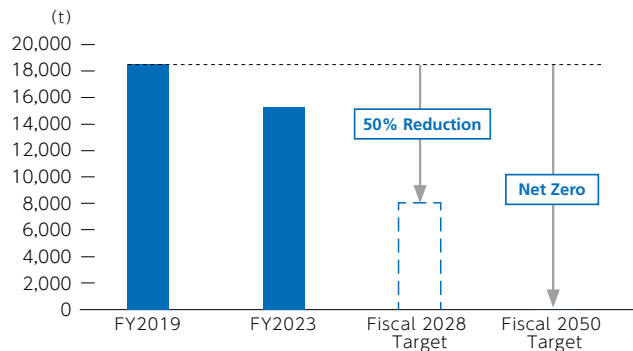


- Our Goals**
- 2028 target: Reduce 50% in simple incineration and landfill disposal compared to 2019
- 2030 target: 100% content of recycled and plant-based materials in our PET bottles

	FY2019	FY2023	Compared with 2019
Total Waste Volume*2	100,100t	85,100t	-15.0%
Simple Incineration and Landfill disposal Volume	18,500t	15,300t	-17.3%

*2 Figures for waste emissions in 2019 were revised through a review of data.

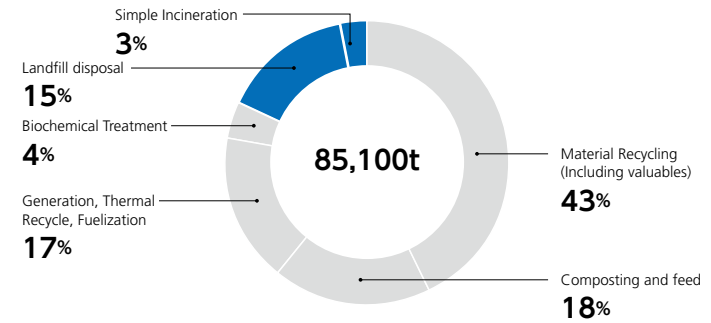
Targets and progress in reduction of simple incineration and landfill disposal volume



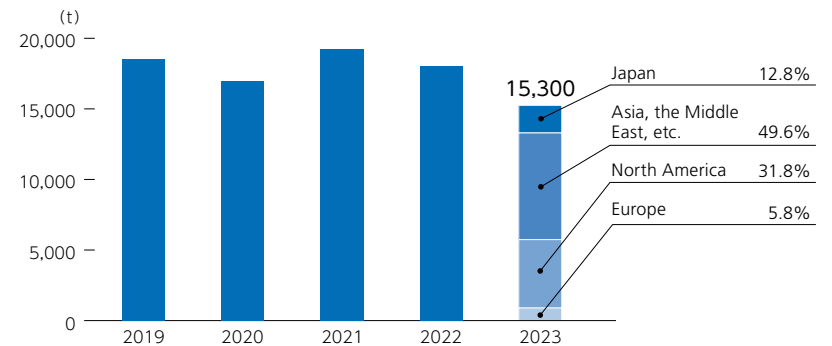
Initiatives toward Zero Waste

Global emissions were 85,100 metric tons in 2023, and amounts of simple incineration and landfill disposal were 15,300 metric tons. In order to achieve the 2028 goal for circular economy 50% reduction in simple incineration and landfill disposal compared with 2019, we are tracking the breakdown of waste by its treatment status, country, and region, striving to solve issues in terms of reduction of waste, and cooperating with group companies globally.

Total Waste Volume



Volume of waste simply incinerated and landfill disposal



Otsuka Group Plastic Policy

Fundamental Concept

PET bottles comprise the majority of plastic containers and packaging used for consumer products by our group companies. For this reason, we believe that by promoting PET bottle recycling, we can reduce our reliance on fossil fuel and thereby contribute to environmental conservation. Our plan is to use PET bottles manufactured from recycled and plant-based materials and increase the percentage of such sustainable resource use in our production processes globally to 100% by 2030 and by 2050, we aim to eliminate the use of petroleum-based raw materials in all consumer products.

Our Vision for 2050

For our entire line of consumer products, we will endeavor to use packaging that supports a sustainable society:

- No use of plastics made from petroleum-based materials
- Promote use of recycled, plant-based, and biodegradable materials
- Promote use of reusable packaging

Our Goal for 2030

- Achieve 100% use of recycled and plant-based materials in our PET bottles.
- Adopt new alternative materials (such as paper containers) as beverage containers, and increase the use of existing can containers.
- Promote the reuse model for beverage containers by adoption of reusable containers through a circular sales model as well as the use of personal bottles and squeeze bottles for existing powder-type products.
- Promote the use of alternative material containers in parallel with the recycling of beverage containers.

To advance PET material recycling, it is essential to recycle PET bottles for use as raw material. Together with our various stakeholders, we will advance our global efforts on proper collection and recycling of used PET bottles.

(Revised July 2022)

Guided by the Otsuka Group Plastic Policy, we are taking swift and appropriate actions regarding every aspect of our use of plastic, and thereby contributing to the sustainable use of plastic and effective resource recycling. Specific initiatives include developing an action plan for PET bottles, using recycled and plant-based materials, and examining options for alternative packaging.

Initiatives of Packaging for a Sustainable Society

Promotion of horizontal PET bottle recycling "Bottle-to-Bottle"

The Otsuka group set the goal of the percentage of recycled and plant-based materials used in all PET bottles to 100% by 2030, and promote "Bottle-to-Bottle*" initiatives.

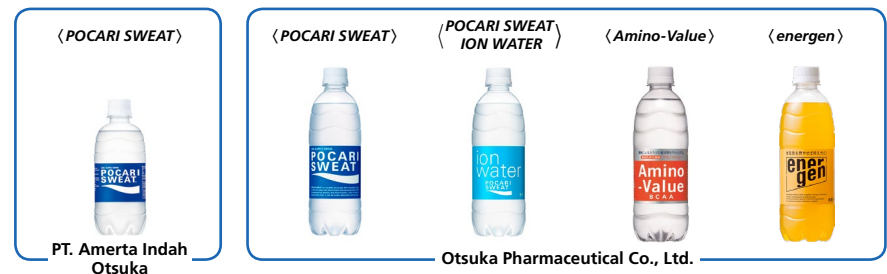
Otsuka Pharmaceutical has been working on this initiative since November 2022 in collaboration with governments, local administrations, and business partners. The company also finalized a collaboration agreement for resource recycling with Naruto City of Tokushima, and Toyota Tsusho Corporation in February 2023. Tokushima local government signed its first agreement on the promotion of horizontal PET bottle recycling initiatives with Otsuka to recycle used PET bottles from municipalities into recycled resin for use as raw materials for PET bottles in July 2023. As of December 2023, we have concluded agreements for resource recycling with 13 municipalities in Tokushima and are promoting resource recycling "Bottle-to-Bottle" initiatives. We will continue to make synergies between collaboration with administrations, local governments, and business partners for achievement of a recycling-oriented society.

*Used PET bottles are converted into raw materials (horizontal recycling) and recycled into new PET bottles.



Resources recycling of PET bottles

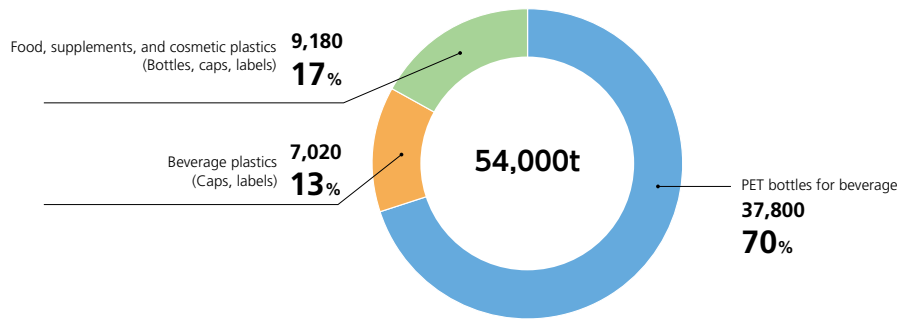
The Otsuka group has been working to reduce the amount of plastic used through reducing the weight of plastic containers and packaging, and selling label-free products. In Japan, PET bottles made from recycled PET resin are now available in various products, including *POCARI SWEAT*, *POCARI SWEAT ION WATER*, *Amino-Value* and *energen*. In Indonesia, PT Amerta Indah Otsuka launched *POCARI SWEAT* in PET bottles made from 30% recycled PET resin, and we are promoting other initiatives to achieve our goals globally.



Grasp of plastic containers and packaging used for consumer products

To reduce the total amount of containers and packaging, the Otsuka group is working globally to develop and introduce environmentally conscious packaging materials, such as thin-walled packaging, smaller individual boxes, and recycled-paper containers. For plastic containers, we have started to sell products that use biomass-based plastic made from plant-based materials.

2023 Amount of Plastic Containers and Packaging Used for Consumer Products* (Metric Tons/Year)



*18 Companies

Four companies in Japan: Otsuka Pharmaceutical, Otsuka Pharmaceutical Factory, Taiho Pharmaceutical, and Otsuka Foods
 14 companies overseas: Crystal Geyser Water Company, Nutrition & Santé, Nutrition & Santé Iberia, Pharmavite, Ridge Vineyards, Interpharma Praha, PT Amerta Indah Otsuka, Otsuka Sims (Guangdong) Beverage, Korea Otsuka Pharmaceutical, FoodState, Tianjin Otsuka Beverage, Daiya Foods, Shanghai Otsuka Foods, and Shandong Otsuka Foods

Initiatives of Resources Recycling through Reuse

POCARI SWEAT returnable bottle for distribution via circular shopping platform "Loop"

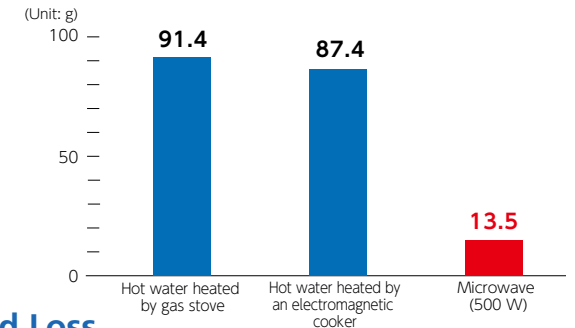
Reuse refers to an initiative to effectively utilize limited resources and reduce environmental impact by repeatedly using products in their original form. Otsuka Pharmaceutical Co., Ltd. developed durable containers that meet the quality standard suitable for reuse, and has launched POCARI SWEAT in 250 ml returnable bottles through the circular shopping platform "Loop" from July 2022. The Otsuka group will continue to adopt company-wide, various approaches and challenges to realize a recycling-oriented society.



Reducing Environmental Impact Using LCA

Life Cycle Assessment (LCA) is a method of quantitatively assessing the environmental impact of a product throughout its life cycle, from the collection of raw materials to its disposal. For the *Bon Curry* brand, Otsuka Foods was one of the first to introduce a microwave-safe pouch that can be microwaved with the entire box after opening the top, instead of the conventional method of cooking with hot water. This improved convenience and reduced CO₂ emissions during cooking by approximately 84%. The Otsuka group will continue to utilize LCA to reduce environmental impact.

Reduction of CO₂ emissions by changing the method of cooking in the *Bon Curry* brand



Initiatives to Reduce Food Loss

Large-scale waste disposal due to food loss significantly impacts the environment, including increased waste and CO₂ emissions. The Otsuka group will improve production processes and strengthen the accuracy of demand forecasting to reduce food loss.

Improvement of the production process at *Bon Curry GOLD*

At Otsuka Foods Tokushima Factory, where *Bon Curry GOLD* is produced, we are working to enhance production efficiency. The standardization of equipment and reduction of defective product rate by changing the drive system improved efficiency and reduced waste discharge by about 8 tons annually.



Initiatives to reduce food loss in a cafeteria

At the Matsushige Factory of Otsuka Pharmaceutical Factory, we are working to reduce cooking scraps and leftover food in the cafeteria, which serves about 200 people daily. We forecasted the number of dishes on the menu to be prepared using a survey with chopsticks after meals and changed the way we serve meals. As a result, we reduced the amount of waste generated by approximately 3 tons a year.