

Otsuka

Otsuka-people creating new products
for better health worldwide

Environmental Report 2024

For the year ended December 31, 2023



Otsuka Holdings Co., Ltd.





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How to Use This Report

Navigation buttons and category tabs are provided at the top of each page to enhance the searchability of information. The pages also include links to pages or external sites related to the text.

Navigation Buttons

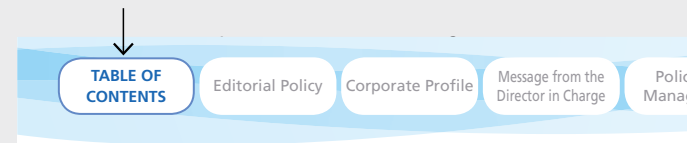
-  Click here to return to the TABLE OF CONTENTS
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Link Button

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Category Tab

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Editorial Policy

Editorial Policy

The editorial policy of this environmental report is to ensure accuracy of information, comprehensiveness, and response to requests from stakeholders. In terms of the environment, the report is based on specific numerical targets and progress in the results of initiatives.

For information on social (S) and governance (G) initiatives, please refer to the Integrated Report or our website.

 [Integrated Report](#)

Information on the environment is also available on our website.

 [Environment](#)

Reporting Period

Data for FY 2023 (from January 1 to December 31 of 2023) are used.

Initiatives reported include the most recent ones.

Scope of Reporting

In principle, all Otsuka group consolidated production sites are covered.

In case of any limit on the scope of initiatives or data, a note on the details is provided in this report.

Issuing Date

October 2024 (once a year)

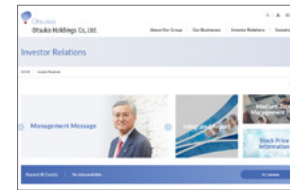
Guidelines Referenced

- International Integrated Reporting Framework, International Integrated Reporting Council (IIRC)
- GRI Standard
- ISO 26000
- Environmental Reporting Guidelines 2018, Ministry of the Environment, etc.

Disclosure of Information on Otsuka Group



 [Integrated Report 2024](#)



 [Investor Relations](#)



 [Sustainability](#)



 [Sustainability Handbook](#)

Contact Information

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TEL: +81-3-6717-1410

Third-Party Assurance

In order to improve reliability, the Otsuka group has third party-assurance.

 [Third-Party Assurance](#)

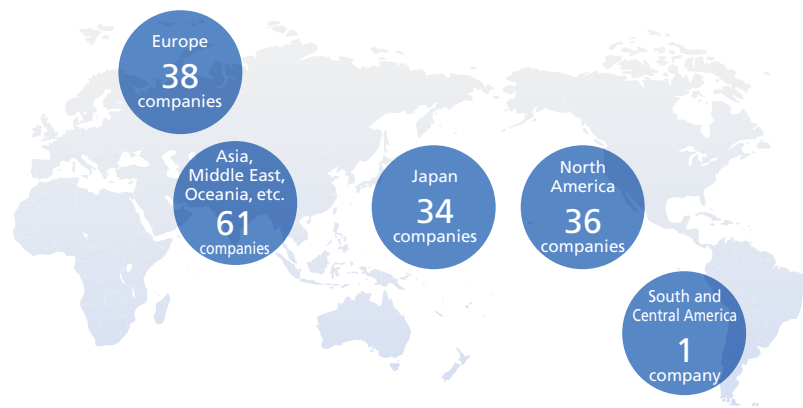
Corporate Profile

Corporate Profile (As of December 31, 2023)

Company Name	Otsuka Holdings Co., Ltd.
Established	July 8, 2008
Capital	¥81.69 billion
Head Office	2-9 Kanda-Tsukasamachi, Chiyoda-ku, Tokyo 101-0048, Japan
Tokyo Headquarters	Shinagawa Grand Central Tower, 2-16-4 Konan, Minato-ku, Tokyo 108-8241, Japan
Telephone	+81-3-6717-1410
Number of Employees	154 (Consolidated: 34,388)
Business Description	Control, management and related activities with respect to the Company's subsidiaries and affiliates operating in pharmaceutical, nutraceutical, consumer product, and other businesses

Global Network (As of December 31, 2023)

Otsuka operates **168** companies* in **32** countries/regions



* Otsuka Holdings and consolidated subsidiaries

Approach to Sustainability

Corporate Philosophy

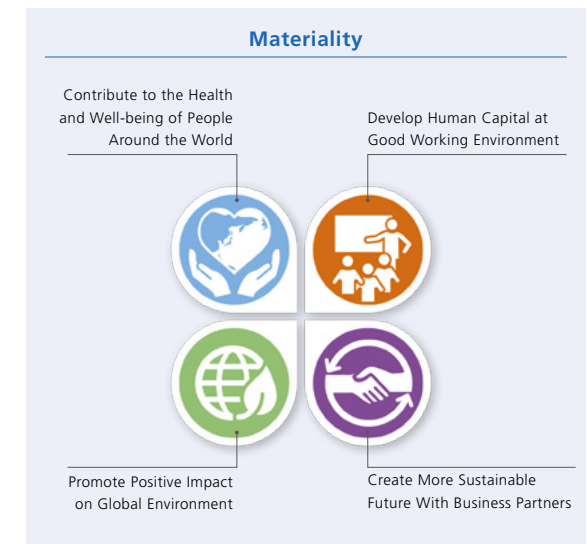
Otsuka-people creating new products for better health worldwide

Otsuka's Goal

To become an indispensable contributor to people's health worldwide

Sustainability Mission

Guided by its corporate philosophy, the Otsuka group works to solve social issues through its businesses and contribute to the creation of a healthy and sustainable society, while achieving growth.



Message from the Director in Charge of Sustainability

Contributing to a sustainable society that leads to a prosperous future.

Guided by its corporate philosophy of “Otsuka-people creating new products for better health worldwide,” the Otsuka group strives to solve social issues through its businesses and contribute to a healthy and sustainable society, while achieving continuous growth. As a distinct total healthcare company that aids in maintaining and improving people's health through innovative and creative products, we aspire to foster a sustainable future continually passing to future generations a society where people and the earth live in harmony.

In our environmental initiatives, we have established our 2050 Environmental Vision, “Net Zero,” with the aim of reducing the total environmental impact across all our business activities to zero. Our entire group advances our efforts for carbon neutrality, circular economy, water neutrality, and biodiversity as priority environmental issues.

In relation to carbon neutrality, we established the Otsuka Group Energy Management Building to build a system to further fortify the integrated energy management in our group companies in Japan. We strive to pursue the optimal energy mix within the group, including maximizing energy use efficiency and introducing renewable energy. We are also actively installing large-scale solar power generation facilities and introducing CO₂-free electricity at Otsuka group subsidiaries in India and Indonesia, which have the highest environmental impact overseas.

We view our activities in the circular economy and water neutrality as contributing to realizing a recycling-oriented society where finite resources are recycled and the environmental impact is minimized. In terms of the circular economy, in line with the Otsuka Group Plastic Policy, we aim to achieve 100% content of recycled and plant-based materials in our PET bottles globally by 2030. PET bottles made from recycled PET resin are already being used for our products, such as *POCARI/SWEAT*. To advance horizontal recycling of used PET bottles, we are collaborating with governments, municipalities, and business partners to establish resource recycling.

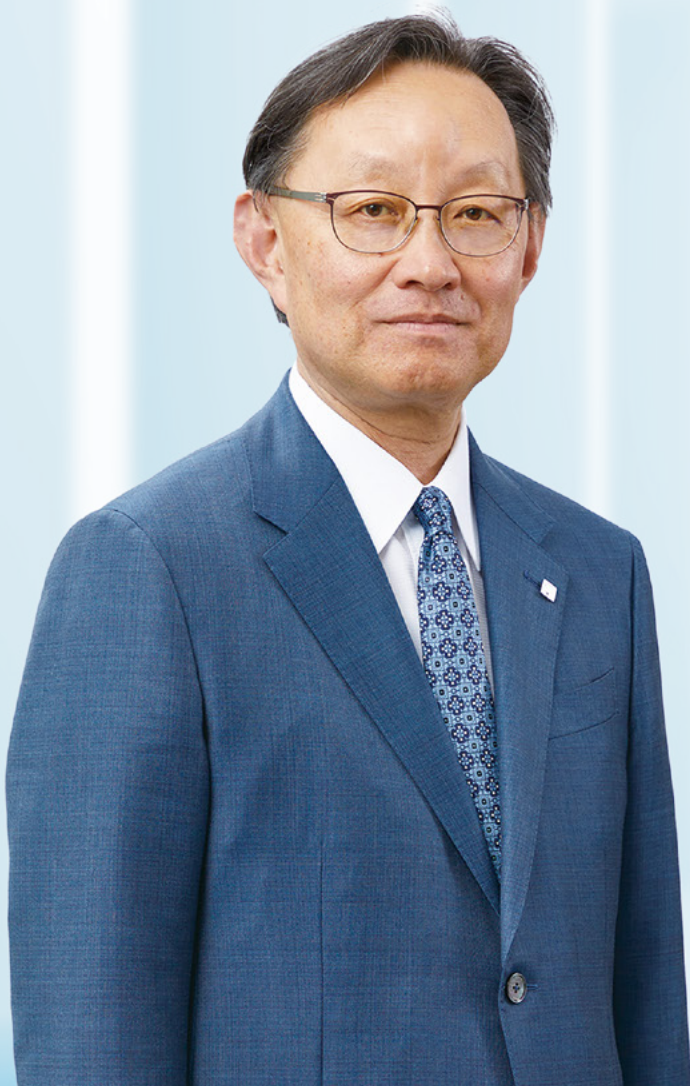
Moreover, in water neutrality, we have formulated water management guidelines that define water management items and standards to perpetually preserve water resources from intake to discharge.

Biodiversity emerged as a new priority issue in 2024, as we acknowledge that the conservation of biodiversity and sustainable use of biological resources are crucial for the sustainable growth of the Otsuka group. Henceforth, we are assessing the impact and level of dependency of our business activities on nature to advocate coexistence with nature.

The Otsuka group will persist in collaborating among its group companies to promote initiatives unique to our group and work towards environmental management that will pass on to the next generations a society in which people and the earth can harmoniously coexist in the future.

Yoshiro Matsuo

Executive Deputy President and Director
Otsuka Holdings Co., Ltd.



Environmental Management

Otsuka Group's Environmental Policy

The Otsuka group, aiming to be an indispensable contributor to people's health and global environment, continues to challenge issues with creativity to realize a society where people and the earth can coexist into the future.

Activity Guidelines

1. Environmental Compliance

We enhance the effectiveness of environmental compliance and reduce risks.

2. Environmental Management

We continuously improve our environmental management system and promote activities related to environmental materiality.

3. Environmentally Considerate Technology

By proactively developing and introducing environmentally considerate technologies, we provide products and services that contribute to the formation of a sustainable society.

4. Human Resource Development

We foster human resource development and corporate culture, and each employee is engaging in environmental activities through daily activities.

5. Communication

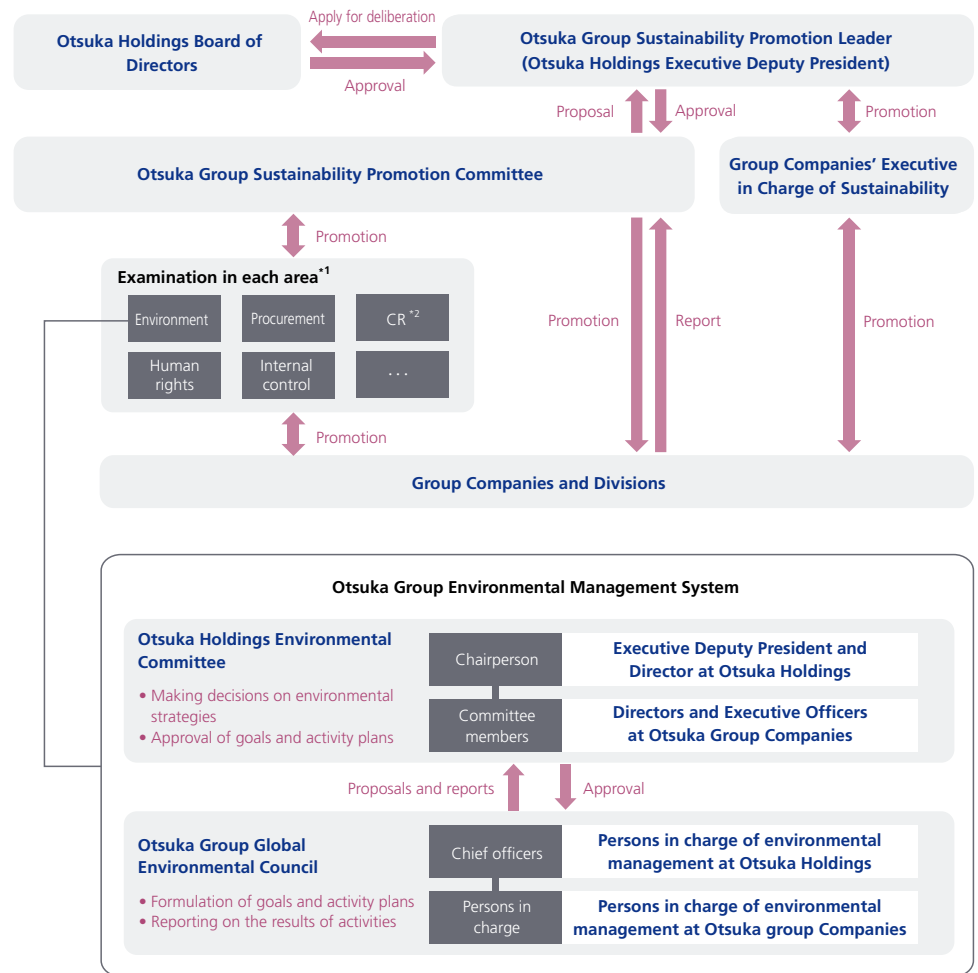
To foster communication with stakeholders, we disclose environmental information with high transparency.

(Revised April 2024)

We have established the Otsuka Group Sustainability Promotion Committee chaired by the director in charge of sustainability promotion at Otsuka Holdings. This committee is dedicated to promoting initiatives aimed at realizing sustainability within our group. As one of our sustainability initiatives, the Otsuka Holdings Environmental Committee established our group's environmental strategies and ensure their implementation at our operating companies.

 [Details of the system of governance](#)

Sustainability Management Structure

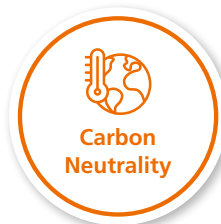


*1 Activities are promoted through various conference bodies, WGs, TFs, and others (including time-limited PJ)

*2 Consumer Relations: Activities to build trust between companies and consumers

2050 Environmental Vision of "Net Zero" – Zero environmental impact of all our business activities –

The Otsuka group, as a total healthcare company, is committed to reduce its impact on the global environment. In order to contribute to the realization of a sustainable society that leads to a healthy future. We aim to achieve our medium-term environmental goals as well as our 2050 Environmental Vision of "Net Zero."



Carbon Neutrality

2028 target

Reduce **50%** in CO₂ emissions compared to 2017



Circular Economy

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



Water Neutrality

2028 target

Expand the plant water management program to all locations globally

Develop a water use strategy for business locations in water-stressed areas



Our Goal and Results by 2023

Current key initiatives	Social Issues	Our Goals	Our Activities	FY 2023 Progress	Related SDGs	2050
Carbon Neutrality ^{*1}	Global warming	2028 target • Reduce 50% in CO ₂ emissions compared to 2017	• Reduce CO ₂ emissions throughout the value chain	<ul style="list-style-type: none"> • Start operation of a cogeneration system (Tokushima Factory, Otsuka Chemical) • Completion of the Energy Management Building, which serves as the central hub for the Group's integrated energy service 	 	Net Zero
Circular Economy ^{*2}	Environmental load increase	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	<ul style="list-style-type: none"> • Reduce environmental impact by improving resource efficiency • Promotion of business activities aimed at sustainability for both society and the earth 	<ul style="list-style-type: none"> • Promotion of horizontal PET bottle recycling • Conclusion of a partnership agreement to recycle used PET bottles from municipalities • Sustainability program "Otsuka Blue Planet" 	 	
Water Neutrality ^{*3}	Reduced freshwater availability due to water resource risks	2028 target • Expand the plant water management program to all locations globally • Develop a water use strategy for business locations in water-stressed areas	<ul style="list-style-type: none"> • Risk analysis and understanding of sustainable water use • Management and effective use of water resources 	<ul style="list-style-type: none"> • Development of water resources management guidelines 	 	

*1 To reduce CO₂ emissions from business activities to substantially zero (calculated by subtracting uptake from emissions)

*2 To establish an economic system that recycles resources by reusing waste discharged from business activities as new raw materials

*3 To reduce the impact of water intake and discharge from business activities on water resources to zero

Information Disclosure Based on the TCFD Recommendations

In October 2021, Otsuka Holdings announced its support for the recommendations of the Task Force on Climate-related Financial Disclosures (TCFD). Furthermore, starting from the financial statements for the fiscal year ended December 31, 2023, Otsuka Holdings began disclosing information on the financial impact of climate-related risks and opportunities based on the TCFD, as well as the status of our initiatives, as part of our philosophy and efforts towards sustainability. Moving forward, we will continue to update the scenario analysis, deepen our efforts based on its results, and work on expanding our disclosure.



Governance

As a global total healthcare company, the Otsuka group is committed to reducing the environmental burden through its businesses and aims to contribute to the creation of a sustainable society that protects nature and the future of the earth, and for this purpose, we have established a system of governance.

Our key environmental issues are deliberated and decided upon at the Otsuka Holdings Environmental Committee, which consists of the Executive Deputy President and Director of Otsuka Holdings and the directors or officers of each group company. The matters concerning the overall direction of the group are shared with each company as the Otsuka group's policy after being deliberated and approved by the Otsuka Holdings Board of Directors, and are implemented and developed by the Otsuka Group Global Environmental Council (hereafter "OGG Environmental Council"), which consists of directors of production departments of each group companies and persons in charge of environmental management. In 2023, the Board of Directors approved the newly added materiality, biodiversity, and new goals based on the reassessment of materiality in line with the Fourth Medium-Term Management Plan. The OGG Environmental Council evaluates risks and opportunities and reports the results of monitoring, and the Otsuka Holdings Environmental Committee gives instructions for improvement and approves planning. If the results of monitoring have an effect on business strategy and management resources, they will be incorporated into the management plan as necessary as items to be resolved at the Board of Directors.

The Committee is positioned under the Otsuka Group Sustainability Promotion Committee, which decides the overall strategies and directions of sustainability, and plays a role as one of the group's sustainability initiatives.

Otsuka Group Environmental Management System



Risk Management

The Otsuka group examines and assesses potential risks that could have a significant financial and strategic impact due to climate-related risks through the Otsuka Holdings Environmental Committee and the OGG Environmental Council. If these risks are deemed important in the risk evaluation, they are brought to the Board of Directors as items for deliberation by the chairman of the Otsuka Holdings Environmental Committee. The approved contents are shared with each company as Otsuka group's policy, and we strive for management towards further improvement and reduction of climate-related risks.

[PDF Sustainability Management Structure](#)

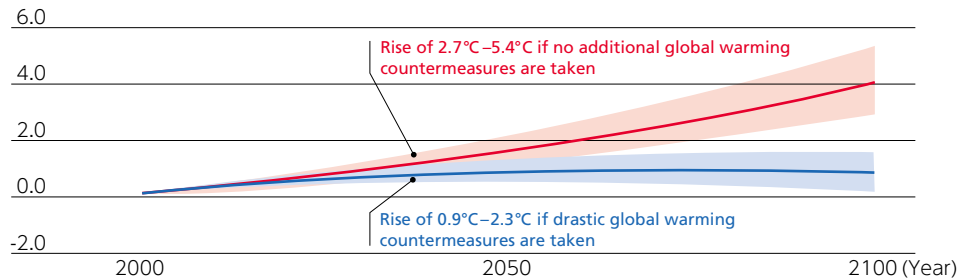
Strategy

The Otsuka group has set forth its 2050 Environmental Vision of "Net Zero," which aims to reduce the total environmental impacts from our business activities to zero. In addition to reducing CO₂ emissions from our group's business activities, we are aiming to eliminate environmental impacts throughout our entire supply chain. Also, in 2021, the Otsuka group conducted an assessment and identification of potential risks and opportunities that could have significant financial and strategic impacts related to climate change. We recognize that proactive efforts to decarbonize in response to climate change are crucial for realizing a sustainable society. We are committed to achieving both environmental load reduction and business growth through initiatives such as the active introduction of renewable energy and maximizing energy use efficiency.

Process of Scenario Analysis

We assessed our climate change-related business risks and opportunities under the below 2°C scenario and the 4°C scenario using scenarios provided by the IEA (International Energy Agency) and the IPCC (Intergovernmental Panel on Climate Change), and examined adaptation measures and financial impacts. We will continue to enhance our understanding and evaluation of risks and opportunities and expand scenario analysis.

Climate-related scenarios — Change in Global Mean Surface Temperature* —



Below 2°C Scenario

A scenario in which development is sustainable and climate change measures are proactively implemented to keep the temperature rise below 2°C. Measures to achieve a decarbonized society are enhanced, including the introduction of CO₂ emissions regulations and expansion of the renewable energy market.

4°C Scenario

A scenario in which development is dependent on fossil fuels and climate change measures are not introduced. If global average temperatures have risen by 4°C compared to preindustrial levels, it would cause an increase in natural disasters, negative impact on crops, and loss of biodiversity.

*Based on the Ministry of the Environment's Japanese translation of Summary for Policymakers, Working Group II Report, Fifth Assessment Report published by the IPCC Main Scenarios Referenced

- IEA World Energy Outlook 2020 (Sustainable Development Scenario, Stated Policy Scenario)
- IPCC (RCP2.6, RCP8.5)
- OECD-FAO Agricultural Outlook 2021–2030

Financial Impacts and Responses Associated with Climate-Related Risks

Category	Contents	Business/Financial Impacts		Our Response/Resilience	
		Below 2°C	4°C		
Transition Risks	Policies and regulations	Large	Large	<ul style="list-style-type: none"> • Introduction of internal carbon pricing • Introduction of CO₂-free electricity • Introduction of solar power generation systems including mega solar power systems • Enhancing energy use efficiency through energy saving and fuel conversion • Investment in environmental facilities in Japan and overseas 	
	Market	• Steep rise in renewable energy prices	Large		Large
		• Steep rise in energy prices	Large		Large
Reputation	• Reputation risk and investment-related risk associated with inadequate response to climate change and water resource risks	Large	Medium		
Physical Risks	Acute	Medium	Large	<ul style="list-style-type: none"> • Decentralized production of major products • Formulation, disclosure, and sharing of procurement policies and guidelines with suppliers • Strengthening communication with our suppliers 	
	Chronic	• Increased energy costs associated with temperature rise	Large		Large
		• Effects of climate change on drug discovery using crop and other natural products	Medium	Medium	<ul style="list-style-type: none"> • Systematic renewal of facilities • Collection of information about the impacts on drug discovery using crops and other natural products, risk assessment, and examination of countermeasures

Financial Impacts and Responses Associated with Climate-Related Opportunities

Category	Contents	Business/Financial Impacts		Our Response/Resilience
		Below 2°C	4°C	
Opportunities	Resource efficiency	Large	Medium	<ul style="list-style-type: none"> • Collection of information on new technologies (such as membrane water treatment technology that does not require steam) and examination of introduction of such technologies in a timely manner
	Energy sources	Large	Small	<ul style="list-style-type: none"> • Introduction of internal carbon pricing • Collection of information on next-generation energy sources (such as hydrogen and ammonia) and examination of introduction of such sources in a timely manner
	Products and services	Large	Large	<ul style="list-style-type: none"> • Formulation of the Otsuka Group Plastic Policy (in 2020) that aims at reducing reliance on fossil fuel-derived materials • Examination of introduction of recycled PET resin or plant-based bio-PET resin for PET bottle beverage containers • Expand sales of products for preventing heat stroke, and expand sales of products with low environmental impact throughout their lifecycles
	Market	Medium	Medium	<ul style="list-style-type: none"> • Development of products that mitigate or address climate change (e.g., plant-based products)
	Resilience	Medium	Large	<ul style="list-style-type: none"> • Promotion of energy saving and renewable energy through internal carbon pricing • Business continuity plan measures at manufacturing sites (anti-seismic measures and measures against flooding)

Assessment of business/ financial impacts

- Large: One billion yen or more (equivalent to 1% of operating income assuming a minimum operating income of 100 billion yen)
- Medium: From negligible to less than one billion yen
- Small: Negligible

Adaptation measures to strengthen resilience

In order to understand potential risks, opportunities, and financial impact of climate change can have on our business, the Otsuka group conducted scenario analysis. The results showed that increased energy costs due to the introduction of further policy measures against global warming, such as a carbon tax and strengthened regulations, could potentially affect our business activities.

To avoid and mitigate these risks, the Otsuka group has revised its climate change target in line with the "1.5°C level," which aims to limit global warming to 1.5°C above pre-industrial era. We also are promoting the expansion of renewable energy, the installation of mega-solar facilities, and fuel conversion as adaptive measures of further strengthen the resilience of our business activities. Furthermore, the Otsuka group is advancing the efficiency of our energy use by centralizing energy management and controlling supply and demand in Japan.

Carbon Neutrality

Approach and Policy

Climate change due to global warming is causing serious environmental issues on a worldwide scale, such as by severely impacting biological and water resources. We recognize it as a major risk to our global operations. In aiming to contribute to a decarbonized, more sustainable society, the Otsuka group is working to reduce greenhouse gas (GHG) emissions throughout the value chain in line with the international targets and indicators adopted under the Paris Agreement.

Our Goals



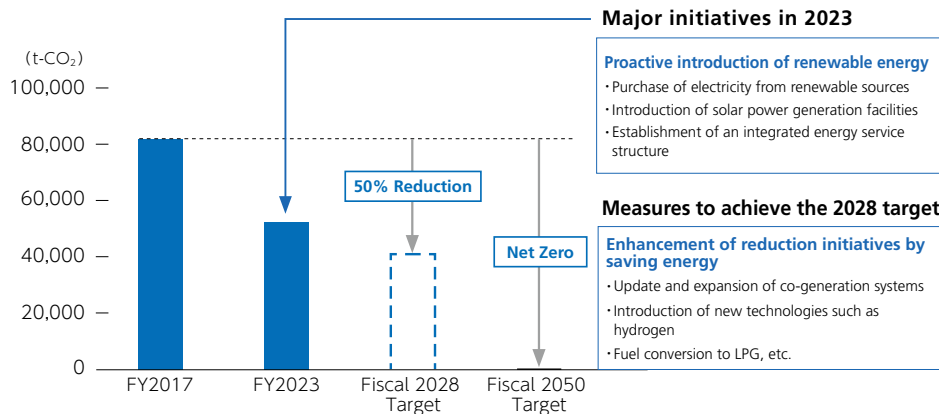
Our Goals •2028 target: Reduce 50% in CO₂ emissions compared to 2017

	FY2017	FY2023	Compared with 2017
CO ₂ Emissions(Scope 1, 2)*1	818,000t-CO ₂	523,000t-CO ₂	-36.1%
Reduction in CO ₂ emissions*2 through implementing renewable energy	—	242,000t-CO ₂	—

*1 Including improvement in CO₂ emissions by adopting IEA Emissions Factors

*2 Including the Green Power Certificates for offices

Target of CO₂ emission reduction and progress



Initiatives to Reduce CO₂ Emissions

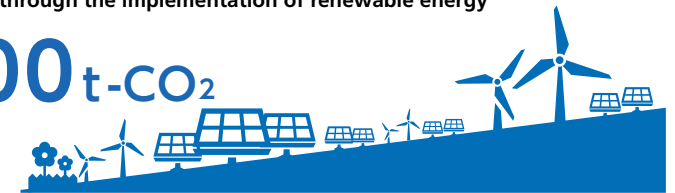
Expanding Utilization of Renewable Energy and Maximizing Energy Efficiency

The Otsuka group has set a target of reducing CO₂ emissions by 50% by 2028 compared to 2017. In expanding the use of renewable energy, we place importance on “additionality,” which contributes to the creation of new renewable energy. In Japan, the mega-solar power generation facility with an output of 1 MW or more was introduced at Kushiro Factory of Otsuka Pharmaceutical Factory in 2020. Then Otsuka Pharmaceutical installed solar power generation facilities at four factories including Tokushima Itano Factory and Takasaki Factory, and Otsuka Foods installed the same at its Kushiro Factory. These implementation would contribute reduce annual CO₂ emissions by approximately 3,037 tons. In addition to Japan, the mega-solar power generation facilities were also implemented at Otsuka Pharmaceutical India in 2020, and at Otsuka Chemical India in 2022. In April 2023, Otsuka Techno newly introduced CO₂-free electricity at both its domestic factories, which is expected to reduce annual CO₂ emissions by approximately 8,000 tons. Utilizing CO₂-free electricity and introducing self-generated renewable energy through solar power generation facilities enabled the Otsuka group to reduce CO₂ emissions by approximately 242,000 tons annually. Furthermore, we are working to maximize energy use efficiency for the entire Otsuka group by introducing a cogeneration system* (Tokushima Factory, Otsuka Chemical, started operation in January 2024) that enables us to supply highly efficient energy to all our group companies.

*The engines, turbines, or fuel cells of co-generation systems generate electricity from natural gas, LPG, or other fuel sources. At the same time, the systems collect the waste heat, thereby achieving efficient use of both heat and electricity

Reduction in CO₂ emissions through the implementation of renewable energy

242,000 t-CO₂



Amount of solar power generated in Otsuka group

20,492 MWh



Kushiro Factory, Otsuka Pharmaceutical Factory

Advancing efficiency of group-wide integrated energy management

The Otsuka group established the Energy Support Department (ES Department) in Otsuka Business Support, which aims to centralize energy management in Japan and establish an advanced management system of supply and demand. We started to provide renewable energy to group companies nationwide by purchasing electricity from electricity generation utilities and other sources from April, 2022. In addition, in July 2023, we established the Otsuka Group Energy Management Building, which serves as the central hub for the integrated energy service as a whole. This facility provides various types of services including total procurement of electricity from renewable sources, forecasts of power demand and supply, and the distribution of electricity generated within the group to various business units. Through the integrated management of energy (electricity and steam) and a state-of-the-art data management system IoT sensors and cameras, the facility also manages water, electricity, and heat within Tokushima Prefecture's Kawauchi area factories where many of the production facilities are located, as well as wastewater from production activities. ES Department would continue to expand the utilization of electricity from renewable sources and enhance the optimal energy mix* within the group through the decarbonization and business growth.

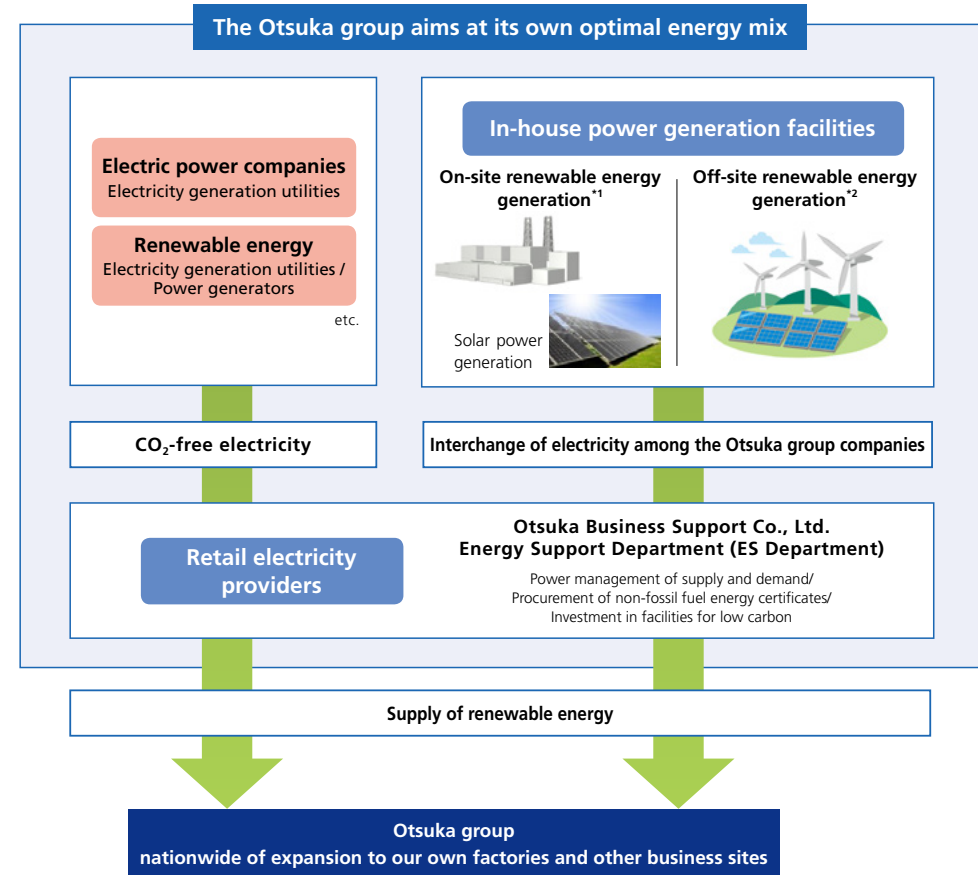
* Promote the optimization of power supply configurations in consideration of environment, economy, and stable energy



Otsuka Group Energy Management Building



Integrated energy management



*1 On-site: A system to provide electricity by installing a power generation facility on the premises of a consumer

*2 Off-site: A system to provide electricity to specific consumers via the general power transmission network

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

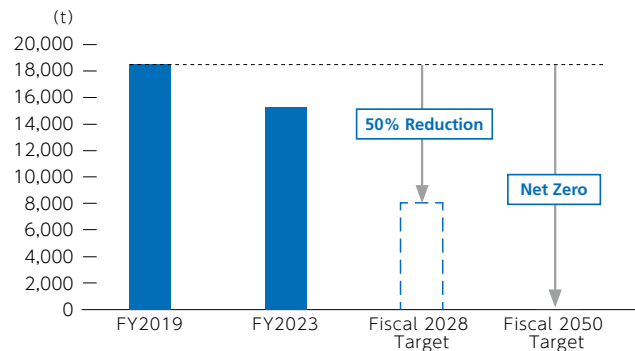


- Our Goals**
- 2028 target: Reduce 50% in simple incineration and landfill disposal compared to 2019
- 2030 target: 100% content of recycled and plant-based materials in our PET bottles

	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.

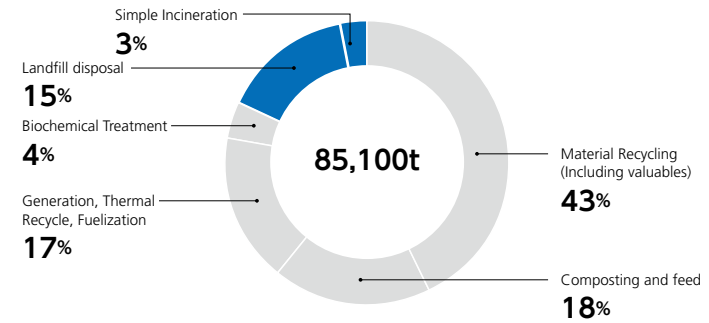
Targets and progress in reduction of simple incineration and landfill disposal volume



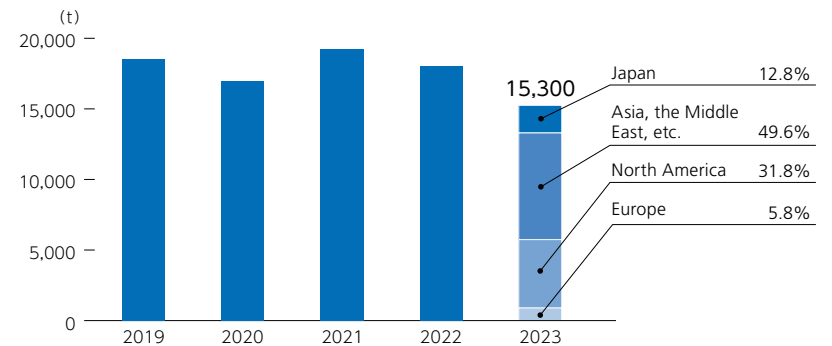
Initiatives toward Zero Waste

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.

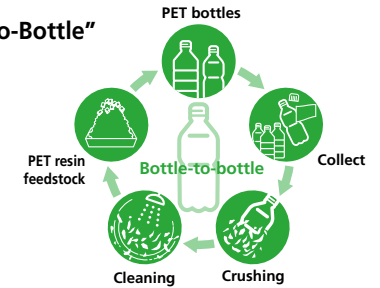
Initiatives of Packaging for a Sustainable Society

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.

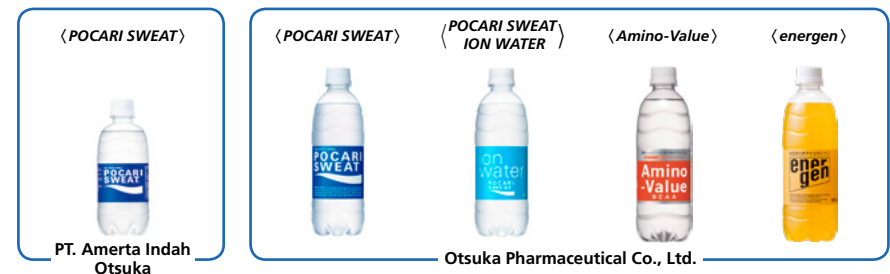
Otsuka Pharmaceutical has been working on this initiative since November 2022 in collaboration with governments, local administrations, and business partners. The company also finalized a collaboration agreement for resource recycling with Naruto City of Tokushima, and Toyota Tsusho Corporation in February 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

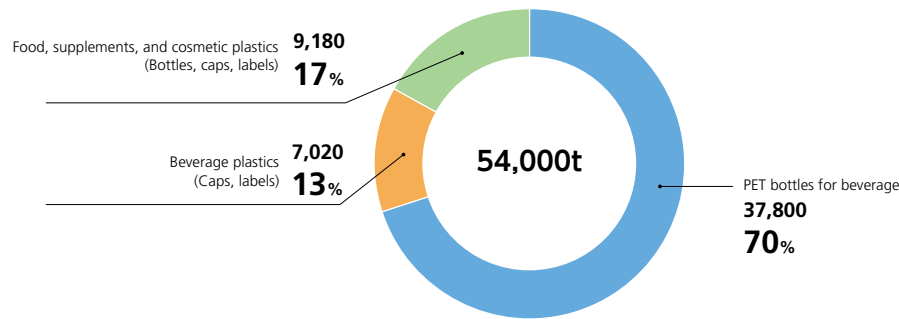
The Otsuka group has been working to reduce the amount of plastic used through reducing the weight of plastic containers and packaging, and selling label-free products. In Japan, PET bottles made from recycled PET resin are now available in various products, including *POCARI SWEAT*, *POCARI SWEAT ION 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"

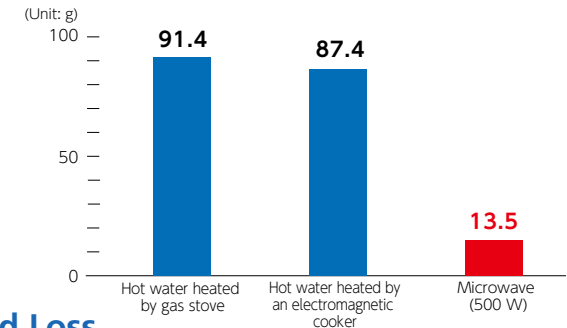
Reuse refers to an initiative to effectively utilize limited resources and reduce environmental impact by repeatedly using products in their original form. Otsuka Pharmaceutical Co., Ltd. developed durable containers that meet the quality standard suitable for reuse, and has launched POCARI SWEAT in 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.

Water Neutrality

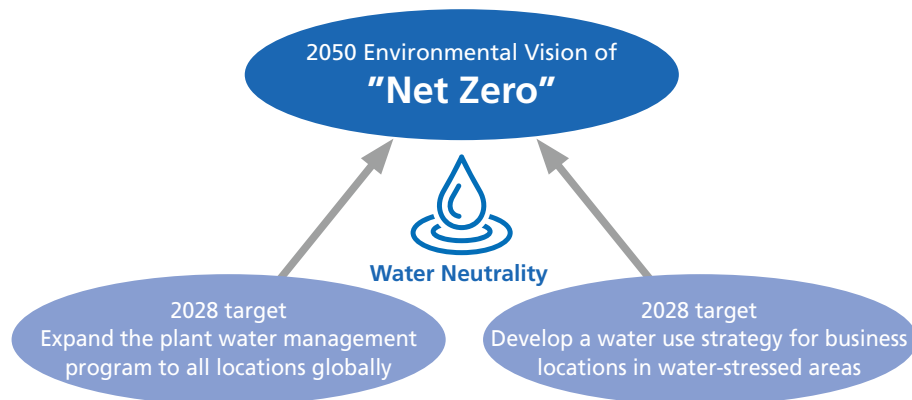
Approach and Policy

Since its establishment, the Otsuka group's operations have had a deep connection to water, a resource essential to life. Through products that use water as a raw material, we have actively contributed not only to the treatment and prevention of diseases, but also to the maintenance and promotion of health. We therefore recognize the importance of water to us as a resource, and consider its conservation to be a critical global issue.

Moreover, water resources are unevenly distributed across different countries and regions, each of which faces different risks. We cooperate with all stakeholders, and conduct ongoing water conservation initiatives from intake to discharge (including cultivation of water resources, conscientious use and clean return), in the aim of sustainable water use.

Our Goals

The Otsuka group has established a 2050 Environmental Vision of Net Zero, which aims to reduce total environmental impact of our business activities to zero. Under the vision, we have revised our medium-term targets to include developing and implementing a water use strategy for business sites in water-stressed areas, and expanding the factory water management program to all locations globally, both by 2028. We are working on the realization of sustainable water use by improving water use efficiency and working to preserve water resources from intake to discharge (including cultivation of water resources, conscientious use of water, and return of clean water to the environment).



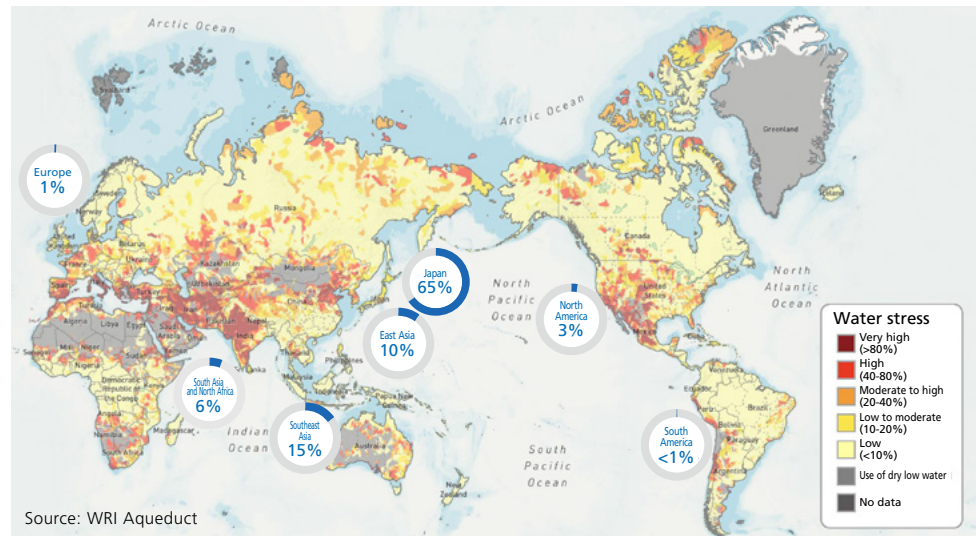
Evaluating Water Risk at Manufacturing Sites

Considering environmental risks in each region is also important for sustainable growth in the diverse business models of the Otsuka group operating around the world. As for water resources, we have conducted water risk assessments at our group's production sites using the water risk assessment tool "Aqeduct," developed by the World Resources Institute (WRI), which found that seven factories in the U.S., India, and Spain fall under the category of "Extremely High (Extremely High)" in the index of Baseline Water Stress*.

The Otsuka group used 19.4 million m³ of water in 2023, of which 6.6% of the water was used in the areas that fall under the category of "Extremely High." Currently, no risks have been identified. We will continue to closely examine risk details at these factories with our local subsidiaries and further investigate the risks. In addition to complying with national and regional laws and regulations, the Otsuka group has formulated water resources management guidelines, which aim to establish and manage water management items and standards. We will continue to expand these efforts globally.

* A state in which the amount of available water resources is insufficient relative to the amount of water demand of humans and ecosystems. It includes not only water shortage, but also water quality and access to water.

Aqeduct Water Risk Atlas and Breakdown by Region of Water Consumption in the Otsuka Group



Source: WRI Aqeduct

Water intake by area

(Thousand m³)

	Municipal water (including industrial water)	River water	Ground water
Japan	11,316	85	1,152
Asia, the Middle East, etc.	3,325	0	2,698
North America	445	0	148
Europe	195	1	24

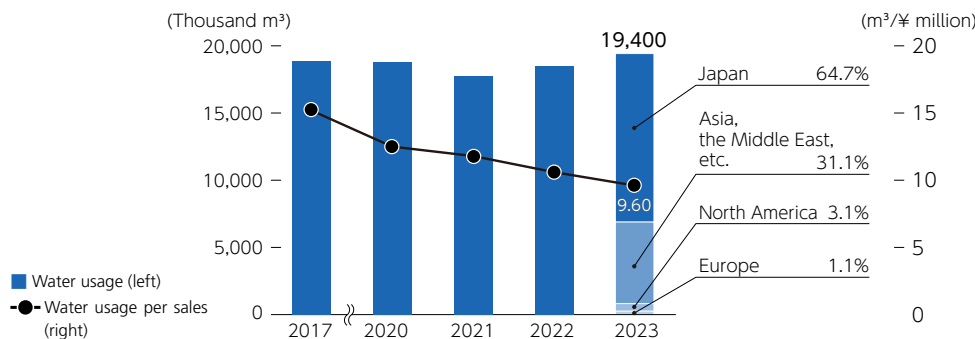
Initiatives to Reduce Water Usage

About 60% of the water used by the Otsuka group comes from production activities in Japan. We strive to ensure the proper use of water to continuously preserve water resources from intake to discharge.

Major initiatives to reduce water usage including improvements in the process of maintaining wastewater quality at the Otsuka Pharmaceutical Factory reduced 834,000 m³ of water and improved global water use efficiency by 9.7% compared to FY 2017. However, global water usage increased by 901,000 m³ due to factors such as the increase in the number of drug substances and beverages in the factories, the restart of Otsuka Chemical's plants, and their increased operating rates.

 [Limiting Emissions to the Atmosphere and Water Systems](#)

Water Usage, Water Usage per Sales



Initiatives that Protect Water Sources*1 through Forestry

One of our initiatives to preserve water resources uses water conscientiously and returns clean water by protecting water source.

Group employees and their families voluntarily participate in conservation activities, such as planting trees, in turn developing a sense of closeness with forests.

Projects

In Japan

Tokushima Forests – Forestry in Collaboration with Tokushima Prefecture

The Otsuka group has signed a partnership agreement with Tokushima Prefecture's Tokushima Cooperative Forestry Project, participating in intensive forest management that is focused on largescale forests covering 100 ha or more. In 2010, Otsuka Pharmaceutical Factory and Taiho Pharmaceutical signed partnership agreements with the Tokushima Cooperative Forestry Project, to support measures for CO₂ sinks through forest improvement. In FY 2023, eight group companies*2 planted broad-leaved trees and others in an area of 13.53 ha (Approximately three times larger than TOKYO DOME), equivalent to 68.67t-CO₂ absorbed by forests.



Outside Japan

PT Widatra Bhakti Social activities of afforestation

Employees of PT Widatra Bhakti participate in the afforestation environment program conducted by the Pandaan government as part of initiatives to protect water sources. PT Widatra Bhakti provides some of the funds for purchasing and planting seedlings.

*1 Nurturing and maintaining water resources, as well as using the natural capacity of forests to mitigate flooding and droughts. Forests soak up falling rain and snow, then allow that water to slowly flow into rivers as groundwater.

*2 Otsuka Pharmaceutical, Otsuka Pharmaceutical Factory, Taiho Pharmaceutical, Otsuka Warehouse, Otsuka Chemical, Otsuka Foods, Otsuka Packaging Industries, and Otsuka Techno Corporation

Biodiversity

Otsuka Group's Biodiversity Policy

Basic Approach

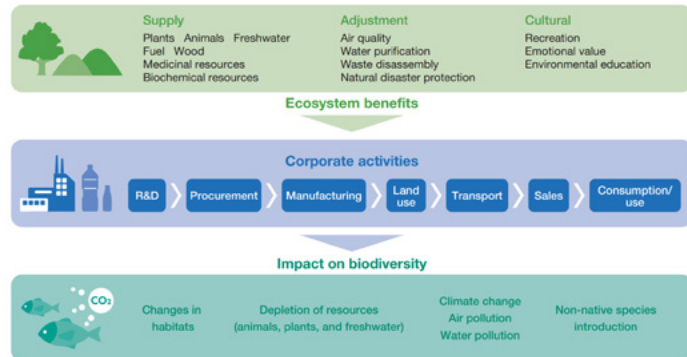
The Otsuka Group recognizes that biodiversity is an indispensable natural capital for all business activities. As a member of a society that benefits from nature, we will take into consideration the impact of our business activities on biodiversity and work to conserve and restore biodiversity towards realizing a sustainable society that passes rich nature to future generations.

Guidelines

1. We will clarify the relationship between biodiversity and business activities throughout the value chain and promote the conservation and sustainable use of biological resources.
 2. We will promote the development of biodiversity considerate products and technologies and strive to reduce the impact on nature.
 3. We will respect international agreements on biodiversity and comply with treaties and laws and ensure the proper access and use of genetic resources, as well as the fair and equitable distribution of the benefits accruing therefrom.
 4. We will communicate with various stakeholders such as administrative agencies, local residents, and NGOs, and collaborate with local communities, to conserve and restore biodiversity.
 5. We will strive to promote conservation activities by raising awareness about the relationship between our business activities and biodiversity.
- (Revised in April 2024)

Relationship between Biodiversity and Business Activities

Otsuka group recognize that biodiversity is one of the indispensable natural capital for all business activities. We strive to conserve and restore it towards realizing a sustainable society and vibrant nature for the next generations as a member who benefit from nature.



Business Operations Considerate of Local Ecosystems

Initiatives for Nature Conservation

The Otsuka group is committed to conserving animals and plants in accordance with laws and regulations, as well as protecting the natural environment in local communities. We have introduced annual environmental surveys to our domestic and global operating companies with production sites, and we monitor compliance with laws and regulations regarding protected animals and plants that are defined by laws (e.g., IUCN protected area management categories, the Ramsar Convention, domestic laws and regulations), and conservation activities. In addition, the Otsuka group has revised our biodiversity policy and guidelines this year to assess our dependency and the environmental impact of our business activities. We plan to disclose information on governance, strategy, risk management, and targets and indicators in line with the Taskforce on Nature-related Financial Disclosures (TNFD). We will continue striving to recognize ecological risks in the regions surrounding our factory, and tackle them.

Creating Biotopes*

The Otsuka group created biotopes at the Tokushima Itano Factory of Otsuka Pharmaceutical and Okayama Taiho Pharmaceutical. By reusing the cooling water from the factories and drain them into channels that reproduce natural environments. Seasonal flowers bloom, and insects and wild birds fly around biotopes which achieve the living in harmony in nature.

*Restoring ecosystems that have been lost due to the establishment of factories, and creating an environment which the original animals and plants can return and thrive.

Wildlife in the Tokushima Itano Factory of Otsuka Pharmaceutical



Tokushima Itano Factory of Otsuka Pharmaceutical



Black-spotted pond frog
(Tokushima Prefecture Red List: Endangered)



Ferocious water bug
(Tokushima Prefecture Red List: Critically Endangered)



Golden venus chub
(Tokushima Prefecture Red List: Critically Endangered)



Japanese Heike firefly

Pollution Control and Management of Chemical Substances

Otsuka Group's Chemical Substance Management Policy

Basic Approach

We will control and reduce the generation of chemical substances used and emitted in the business activities of our group companies and our manufacturing contractors through operation of the ISO14001 environmental management system with appropriate management and improve the system's operation.

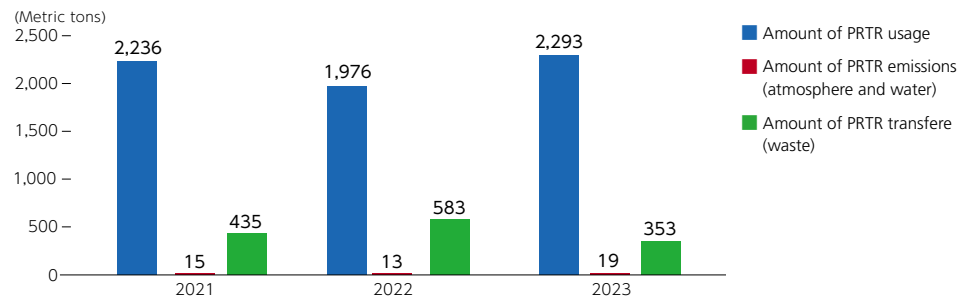
Guidelines

- 1 Prevent the adverse effects of chemical substances on humans and ecosystems**
We will comply with the laws and regulations of each country regarding the use and discharge of chemical substances and will further promote voluntary initiatives.
- 2 Comply with laws and regulations in each country and further promote voluntary initiatives**
We will monitor the amount of chemical substances used and emitted in our business activities, check the status of compliance and progress of voluntary initiatives regularly, and take necessary corrective actions.
- 3 Monitoring**
We will monitor the amount of chemical substances used and emitted in our business activities, check the status of compliance and progress of voluntary initiatives regularly, and take necessary corrective actions.
- 4 Response in the event of violations or disasters**
We prepare the procedures for dealing with violations and disasters, and share them with relevant employees to prevent the occurrence of chemical contamination even in a state of emergency.

Proper Management of Chemical Substances*1

We handled 2,293 metric tons of PRTR substances*2 in our business activities. We will continue to strive for appropriate management of chemical substances.

Substance transfers and emissions (substances subject to PRTR)

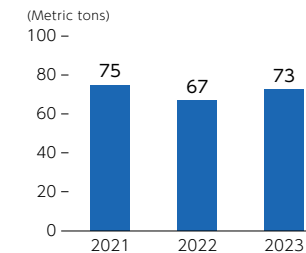


Reduction of Emissions to the Atmosphere and Water Systems*1

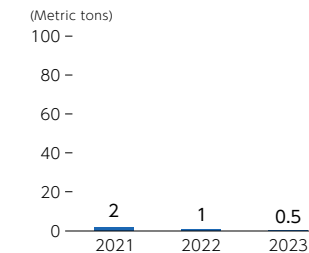
Prevention of Air Pollution

The total amounts of emissions of air pollutants from our business activities were 73 metric tons of NOx (nitrogen oxides), 0.5 metric ton of SOx (sulfur oxides), and five metric tons of soot and dust. We will continue to consolidate boiler facilities, switch to cleaner fuels, and improve its energy efficiency to minimize emissions of NOx and SOx into the atmosphere.

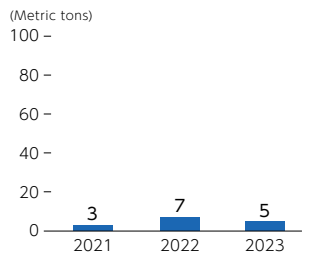
NOx (Nitrogen Oxides) Emissions



SOx (Sulfur Oxide) Emissions



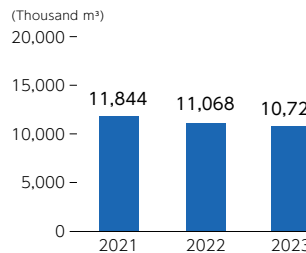
Dust and Soot Emissions



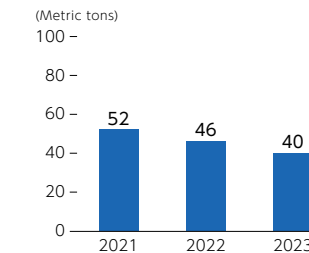
Prevention of Water Pollution

The total amount of wastewater discharged from our business activities were 10,724,000m³, COD (chemical oxygen demand), which indicates the environmental impact of water quality, was 40 metric tons, and SS (suspended solid) emissions were 32 metric tons.

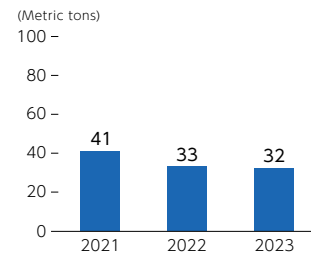
Total Amount of Wastewater



COD (chemical oxygen demand) Emissions



SS (Suspended Solids) Emissions



*1 Otsuka Pharmaceutical, Otsuka Pharmaceutical Factory, Taiho Pharmaceutical, Otsuka Chemical, and Otsuka Foods

*2 PRTR (Pollutant Release and Transfer Register):

an inventory tracking system to recognize, calculate, and publicize data on various harmful chemical substances: their generation sources, and their quantities released into the environment, or their quantities contained in waste and carried out of the workplace. At present, the identified number of PPTR substances is 515.

Supply Chains

Initiatives for Sustainable Procurement

Guided by its corporate philosophy, the Otsuka Group works to solve social issues through its businesses and commits to its sustainability mission of contributing to the creation of a healthy and sustainable society, while achieving growth. As for procurement activities, in September 2020, Otsuka Group established its procurement policy, Otsuka Group Procurement Policy, and Otsuka Group Sustainable Procurement Guidelines to ask our suppliers for cooperation. We are committed to ethical and sustainable procurement activities in addition to quality, safety, and stable supply. In May 2024, we revised the policy and guidelines with the aim of promoting these initiatives more actively and in more diverse manners. Under the policy and guidelines, we are working together with our suppliers to realize a sustainable society and enhance the corporate value of both groups in order to deliver high-quality and sustainable products to consumers.

Otsuka Group Procurement Policy

(Excerpts involved environment)

Environmental management

We conduct our procurement activities in compliance with the Otsuka Group's Environmental Policy and hold ourselves accountable for the commitments listed below.

- Environmental protection
- Environmental permits
- Reduction of greenhouse gas emissions
- Proper management and reduction of waste and emissions to prevent pollution
- Sustainable resource utilization and responding to biodiversity

(Revised in May 2024)



[Otsuka Group Procurement Policy](#)



[Otsuka Group Sustainable Procurement Guidelines](#)



[Promotion System](#)

Expanding Supplier Assessments

The Otsuka group conducts supplier assessments using the CSR Procurement Self-Assessment Questionnaire (SAQs) prepared by Global Compact Network Japan (GCNJ) to assess the suppliers' environmental, social, and ethical performance. We have implemented SAQs for 597 suppliers in Japan and 56 overseas, and based on the results we have conducted interviews for 125 suppliers to confirm that there are no significant risks. Furthermore, from 2024, we have expanded the assessment by utilizing our own SAQs, which has evolved from the conventional GCNJ SAQs, and the sustainable procurement platform EcoVadis (<https://ecovadis.com>).

We will monitor the progress of our KPIs related to our sustainable procurement initiatives, such as the supplier assessment participation rate, the response rate to risks identified in assessment, and the implementation rate of communication with suppliers.

The Otsuka group will work with suppliers to achieve a sustainable society throughout the supply chain, under the sustainable procurement project. To this end, we will rebuild our overall strategy, including the development of guidelines, the expansion of supplier briefing and assessments, and the enhancement of internal education to promote sustainable procurement.

Sustainable procurement activity results

Item	Target	Result	Initiative
Procurement Personnel Training	Responsible Procurement Working Group 12 procurement personnel from 9 group companies	Training time: total 6 days About 30 hours	We implemented training to deepen knowledge in four areas defined in UNGC (human rights, labor, environment, and anti-corruption) and build constructive relations with suppliers.
On-demand briefing for suppliers	Number of companies (Japan): 587	Number of Companies: 583 (99%)	The Otsuka Group Procurement Policy, Otsuka Group Sustainable Procurement Guidelines, Otsuka Group Environmental Vision 2050, Guidelines on Respecting Human Rights in Responsible Supply Chain have been explained to the suppliers.
Consent to policy and guidelines	Number of companies (Japan): 587 Number of companies(overseas): 66	Number of companies (Japan): 583 (99%) Number of companies (overseas): 51 (77%)	We have obtained understanding of the Otsuka Group Procurement Policy and Otsuka Group Sustainable Procurement Guideline and consent from suppliers who agree with collaborating on the promotion of sustainable procurement.
Supplier Assessments	Number of companies (Japan): 612 Number of companies (overseas): 66	Number of companies (Japan) : 597 (98%) Number of companies (overseas) : 56 (85%)	The assessments are conducted using the GCNJ's SAQs and Otsuka Group's own Human Rights SAQs and Environmental SAQs.
Supplier Interviews	Number of companies (Japan): 125	Telephone interviews: 112 Web interviews: 13	We conducted interviews to ascertain the actual state of activities based on the results of the supplier assessment.

Engagement

Community and Society

Public-private-academic collaboration in Indonesia Sustainability Program "OTSUKA BLUE PLANET"

In September 2022, PT Amerta Indah Otsuka in Indonesia concluded an agreement with the Ministry of Environment and Forestry on OTSUKA BLUE PLANET, a sustainability program for local governments and residents in the vicinity of its factory. The company is promoting the following three projects:

1 ECO Village Project:

With the aim of creating a community environment in which people can develop the habit of taking good care of waste and manage waste independently, we are working together with local people to operate facilities for waste treatment and management.



2 ECO Blue School Project:

We provide high school students and teachers with recycling activities and education to create a better environment, such as beautification of the school area, waste management, and PET bottle recycling.



3 ECO Bottle Project:

We produce and sell POCARI/SWEAT in PET bottles made from recycled PET resin*.

* Uses 30% recycled PET resin

Industry Associations

The Otsuka Group is promoting environmental initiatives in cooperation with various industry associations, including the Japan Soft Drink Association. Aiming to develop the industry and realize a sustainable society, the Japan Soft Drink Association promotes horizontal PET bottle recycling "Bottle-to-bottle" among other activities.

[Promotion of horizontal PET bottle recycling "Bottle-to-bottle"](#)

Relationship with Stakeholders

The Otsuka group is promoting environmentally conscious efforts to build relationships of trust with various stakeholders.




[Stakeholder Engagement](#)

Initiative/External Assessment

Initiatives That We Are Engaged In


Initiative/ Organization Name	Projects
Task Force on Climate-related Financial Disclosures (TCFD)	<p>The Otsuka group has announced its support for recommendations issued by TCFD in October 2021. Scenario analysis assesses climate-related risks and opportunities, including carbon taxes, physical risks, and crop demand. We promote various measures based on the assessment result.</p>  <p>Information Disclosure Based on the TCFD Recommendations</p>
RE100	<p>Otsuka Holdings has endorsed RE100, an international initiative that aims for 100% use of renewable energy for business operations, and joined it in April 2022.</p> 
Japan Climate Initiative (JCI)	<p>Otsuka Holdings supports for Japan Climate Initiative that declares "joining the front line of global push for decarbonization from Japan," and participates in various activities.</p> 
Science Based Targets (SBTi)	<p>Greenhouse gas (GHG) emissions reduction targets set by Otsuka Pharmaceutical and Taiho Pharmaceutical have been certified by the Science Based Targets (SBT) initiative.</p> <p>* An international initiative led by the United Nations Global Compact (UNGC), World Resources Institute (WRI), and World Wide Fund for Nature (WWF). It certifies the CO₂ emission reduction targets of companies that are in line with emissions reduction scenarios based on scientific facts, for achieving the Paris Agreement-mandated objective of limiting the average global temperature rise to below 2°C.</p> 

ESG Environment Indexes for which Otsuka Holdings has been selected as their constituent

FTSE Blossom Japan Index	<p>Indexes by U.K. based FTSE Russell. An ESG investment index that reflects the performance of Japanese companies that excel in responding to ESG. Otsuka Holdings has been included since 2023.</p> 
FTSE Blossom Japan Sector Relative Index	<p>Indexes by U.K. based FTSE Russell. An ESG investment index that reflects the performance of Japanese companies that relatively excel in responding to ESG in each sector. Otsuka Holdings has been included since 2022.</p> 
MSCI Japan ESG Select Leaders Index	<p>Index by MSCI in the United States. An index for issues that relatively excel in ESG rating within the industry among the constituent stocks of the MSCI Japan IMI Index. Otsuka Holdings has been included since 2024.</p> <p>2024 CONSTITUENT MSCI NIHONKABU ESG SELECT LEADERS INDEX</p>
S&P/JPX Carbon Efficient Index	<p>A stock price index that determines the weighting of its constituent stocks in the Tokyo Stock Price Index (TOPIX) with a focus on the status of environmental information disclosure and the level of carbon efficiency (carbon emissions per unit of revenue). The Government Pension Investment Fund (GPIF), one of the world's largest pension funds, newly selected this ESG index for investment. Otsuka Holdings has been included since 2018.</p>  <p>S&P/JPX Carbon Efficient Index</p>

External Recognition

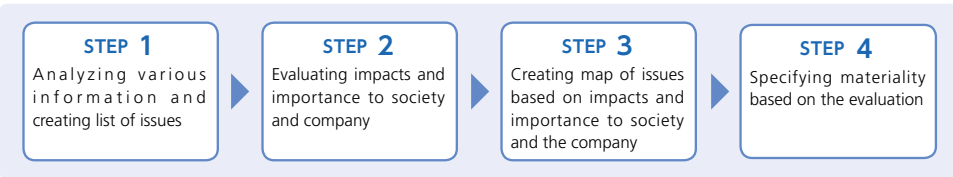
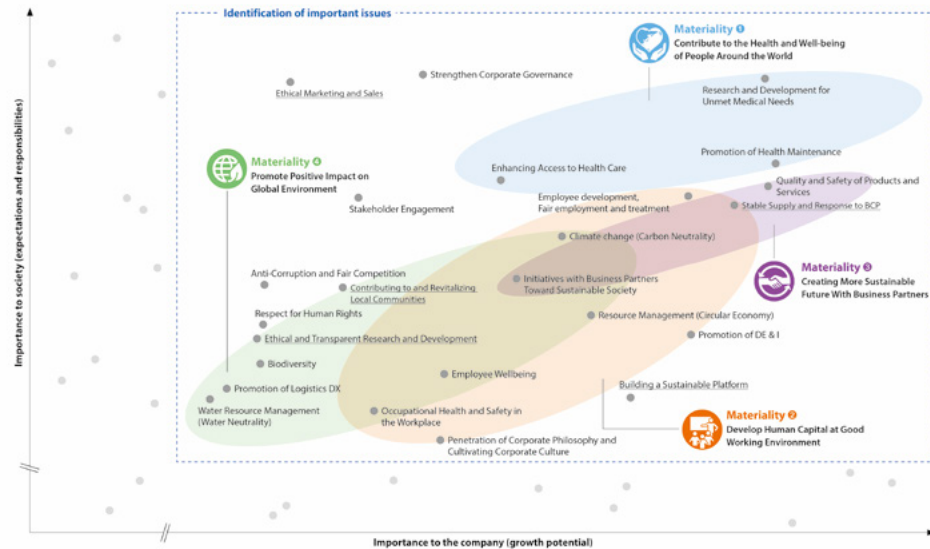
ESG External Assessment

CDP	<p>Otsuka Holdings selected for CDP Climate Change A List</p> <p>CDP is a UK-based international NGO that works on environmental issues such as climate change. They ask major companies and cities around the world to disclose information on how they are dealing with issues such as climate change and water management, and conduct questionnaires and assessments. In 2023, Otsuka Holdings received the highest evaluation of A List for climate change, and A- for water security.</p> 
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Re-assessed of Materiality

Map of Materiality

Materiality means the key area that the Otsuka group should prioritize. In our group, we specified it based on two axes: "importance to society" and "importance to the company." The former refers to external trends in the industry and requirements or expectations of ESG rating agencies and stakeholders including NGOs and investors. The latter refers to internal opinions from major operating companies, questionnaires and interviews of employees.



Materiality: Promote Positive Impact on Global Environment

The Otsuka Group re-assessed its materiality in line with the Fourth Medium-Term Management Plan, which began in 2024, and identified "promote positive impact on global environment" as one of the four materialities. As part of efforts to promote positive impact on global environment in light of our business characteristics, we have newly added "biodiversity" and re-assessed our targets for environmental issues to be addressed. We have also added new targets such as "Introduction of 20% self-generated renewable energy by 2028."

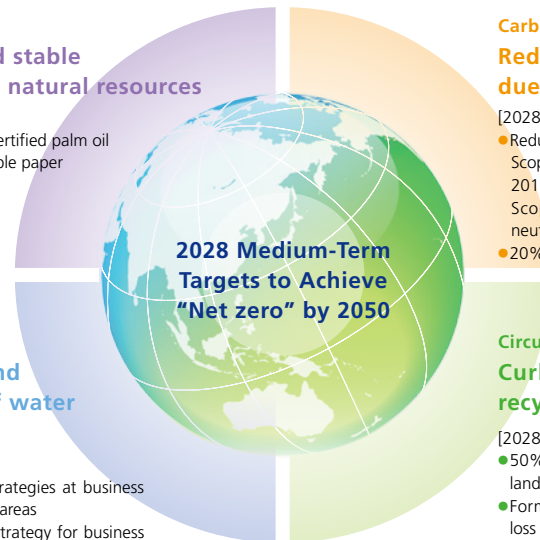
Environmental Targets for 2024 – 2028

Biodiversity:
Sustainable and stable procurement of natural resources
[2028 targets]
 • Uses 100% of RSPO certified palm oil
 • 100% use of sustainable paper

Carbon Neutrality:
Reducing climate change due to global warming
[2028 targets]
 • Reduction of CO₂ emissions
 Scopes 1, 2: 50% reduction (compared to 2017)
 Scope 3: Initiatives to achieve carbon neutrality by 2050
 • 20% self-generated renewable energy

Water Neutrality:
Maintenance and conservation of water resources
[2028 targets]
 • Planning water use strategies at business sites in water-stressed areas
 • Develop a water use strategy for business locations in water-stressed areas
 • 10% reduction in water consumption compared to 2023

Circular Economy:
Curbing resource use and recycling
[2028 targets]
 • 50% reduction in simple incineration and landfill disposal compared to 2019
 • Formulation and implementation of food loss reduction plans
 [2030 targets]
 • 100% of recycled materials in our PET bottles and use of plant-based materials



Environmental Data

Key Initiatives	Classification	Sources	Scope	FY2020	FY2021	FY2022	FY2023	Unit
Carbon Neutrality	Energies	Electricity	Global total	533,095	503,399	405,636	377,064	thousand kWh
			Japan	127,521	93,177	80,972	64,306	
			Outside Japan	405,573	410,221	324,664	312,758	
		CO ₂ free electricity	Global total	201,858	265,242	424,719	442,208	thousand kWh
			Japan	194,051	226,690	289,010	310,430	
			Outside Japan	7,807	38,552	135,709	131,778	
		Natural gas & City gas	Global total	71,600	68,084	59,718	63,004	thousand m ³
			Japan	31,498	31,153	22,696	22,339	
			Outside Japan	40,101	36,930	37,022	40,666	
		Coal	Global total	57,968	60,203	55,502	53,492	t
			Japan	0	0	0	0	
			Outside Japan	57,968	60,203	55,502	53,492	
		Steam	Global total	343,067	355,317	345,182	314,789	t
			Japan	152,076	152,010	139,282	129,757	
			Outside Japan	190,991	203,307	205,900	185,032	
		LNG	Global total	14,104	16,142	18,735	18,371	t
			Japan	13,823	15,729	18,735	18,371	
			Outside Japan	281	413	0	0	
		A HFO	Global total	7,945	5,025	2,762	2,183	kL
			Japan	7,945	5,025	2,762	2,183	
			Outside Japan	0	0	0	0	
		LPG	Global total	5,870	5,990	5,523	5,323	t
			Japan	5,596	5,664	5,473	5,278	
			Outside Japan	274	327	50	45	
		Diesel	Global total	436	452	554	964	kL
			Japan	58	20	18	17	
			Outside Japan	378	432	536	948	
Kerosene	Global total	130	133	139	133	kL		
	Japan	130	133	139	133			
	Outside Japan	0	0	0	0			
Gasoline	Global total	115	48	52	35	kL		
	Japan	115	48	52	35			
	Outside Japan	0	0	0	0			
Steam (non industrial)	Global total	1,084	1,198	1,397	1,025	GJ		
	Japan	1,084	1,198	1,397	1,025			
	Outside Japan	0	0	0	0			
Hot water	Global total	2,567	1,371	1,461	1,579	GJ		
	Japan	173	138	162	139			
	Outside Japan	2,393	1,233	1,299	1,440			
Cold water	Global total	11,774	3,897	4,087	4,910	GJ		
	Japan	11,774	3,897	4,087	4,910			
	Outside Japan	0	0	0	0			

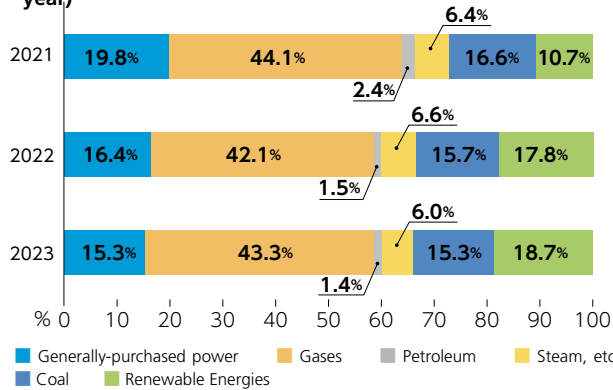
Key Initiatives	Classification	Sources	Scope	FY2020	FY2021	FY2022	FY2023	Unit	
Carbon Neutrality	Renewable Energies	Solar power	Global total	3,869	6,727	15,152	20,492	thousand kWh	
			Japan	1,409	4,069	4,417	5,628		
			Outside Japan	2,459	2,658	10,735	14,864		
		Biomass power	Global total	7	13	17	14	thousand t	
			Japan	0	0	0	0		
			Outside Japan	7	13	17	14		
	CO ₂	CO ₂ emissions	Global total	706	684	576	522,671	thousand t-CO ₂	
			Japan	207,281	188,999	164,784	153,727	t-CO ₂	
			Outside Japan	498,754	494,704	411,032	368,944		
		CO ₂ emissions per sales	Global total	0.50	0.46	0.33	0.26	t/¥ million	
		GHG emissions throughout the value chain ^{*1}		1,118	1,030	1,110	1,107	thousand t-CO ₂	
		Scope1 ^{*1}		125,038	130,391	112,229	109,739		
		Scope2 ^{*1}		36,647	9,731	3,215	1,395		
		Scope3 ^{*1}	Category 1 (Purchased goods and services)		635,542	592,537	648,624	664,646	
			Category 2 (Capital goods)		52,402	38,763	85,592	62,083	
			Category 3 (Fuel and energy-related activities not included in Scopes 1 and 2)		45,579	34,167	30,272	35,423	
			Category 4 (Transportation and distribution)(Upstream)		70,621	70,519	72,548	73,671	
			Category 5 (Waste generated in operations)		12,836	13,535	10,966	10,254	
			Category 6 (Business travel)		6,030	5,413	8,285	13,576	
			Category 7 (Employee commuting)		5,773	5,917	5,679	6,126	t-CO ₂
Category 8 (Leased assets) (Upstream)			6,356	7,258	7,294	6,940			
Category 9 (Transportation and distribution) (Downstream)			20,407	20,736	22,480	21,608			
Category 10 (Processing of used products)				N/A					
Category 11 (Use of sold products)		80,209	79,452	80,051	79,728				
Category 12 (End-of-life treatment of sold products)		20,751	21,163	22,879	21,542				
Category 13 (Leased assets) (Downstream)			N/A						
Category 14 (Franchise)			N/A						
Category 15 (Investment)			N/A						
Water Neutrality	Water usage	Global total	17,732	17,680	18,488	19,389	thousand m ³		
		Japan	11,605	10,909	11,629	12,553			
		Outside Japan	6,127	6,772	6,859	6,836			
	Water use efficiency	Global total	12.5	11.8	10.6	9.61	m ³ /¥ million		
		Japan	—	9,654	10,399	11,316			
	Municipal water (including industrial water)	Asia, the Middle East, etc.	—	3,275	3,264	3,325	thousand m ³		
		North and South America	—	407	390	445			
		Europe	—	212	220	195			
	Water intake by water source	River water	Japan	—	123	96	85	thousand m ³	
			Asia, the Middle East, etc.	—	0	0	0		
			North and South America	—	0	0	0		
		Ground water	Europe	—	2	2	1		
			Japan	—	1,131	1,134	1,152	thousand m ³	
			Asia, the Middle East, etc.	—	2,708	2,755	2,698		
North and South America	—	137	201	148					
		Europe	—	32	26	24			

*1 Five group companies: Otsuka Pharmaceutical, Otsuka Pharmaceutical Factory, Taiho Pharmaceutical, Otsuka Chemical, and Otsuka Foods

Key Initiatives	Classification	Sources	Scope	FY2020	FY2021	FY2022	FY2023	Unit		
Water Neutrality	Water	Wastewater by destination	Rivers, lakes and marshes	11,717	11,194	10,560	10,275	thousand m ³		
			Underground seepage	60	4	1	1			
			Area of ocean	1,002	1,051	1,118	1,246			
			Third-party processing (municipal sewage, etc.)	2,886	2,873	2,729	2,883			
			Total Amount of Wastewater	15,666	15,122	14,407	14,404			
Circular Economy	Material ^{*1}	Material	Global total	114,847	114,771	119,541	124,353	t		
			Plastics	PET	11,963	12,028	14,416	15,593	t	
	Others	16,028	14,998	15,675	15,833					
	Paper and cardboard	33,149	32,481	36,173	35,446					
	Others	89,826	88,949	92,812	81,073					
	Waste	Packaging material ^{*1}	Total (Including valuables)	Global total	91,838	93,895	92,943	85,036	t	
				Total amount of waste	Japan	35,723	35,246	30,820		33,576
				Outside Japan	56,115	58,649	62,123	51,460		
				Global total	64,487	65,314	64,891	47,341		
				Recycled materials	Japan	31,110	30,352	27,279		20,010
				Outside Japan	33,377	34,962	37,612	27,331		
				Material Recycling	39,703	37,723	37,487	17,409		
				Thermal Recycle	9,528	11,911	12,639	14,503		
				Composting and feed	15,256	15,680	14,765	15,428		
				Global total	4,378	5,532	3,370	2,577		
				Simple Incineration	Japan	3,606	3,983	2,529		1,860
				Outside Japan	772	1,549	841	717		
				Global total	12,594	13,695	14,660	12,657		
				Landfill disposal	Japan	99	112	207		83
				Outside Japan	12,495	13,583	14,453	12,574		
				Global total	10,379	9,355	10,022	3,359		
				Bio-processing and chemical processing	Japan	909	799	804		776
				Outside Japan	9,470	8,556	9,218	2,584		
				Global total	9,884	10,831	10,543	10,085		
				Total amount of waste	Japan	3,836	4,513	3,279		2,525
				Outside Japan	6,048	6,318	7,264	7,560		
				Global total	4,549	5,450	6,365	6,585		
Recycled materials				Japan	1,653	2,174	1,932	1,784		
Outside Japan				2,897	3,276	4,433	4,801			
Recycled materials				1,832	2,257	3,155	3,446			
Thermal Recycle				1,556	3,193	3,210	3,139			
Composting and feed				0	0	0	0			
Global total	2,443	2,694	1,661	1,090						
Simple Incineration	Japan	2,047	2,235	1,201	678					
Outside Japan	396	459	460	412						
Global total	1,914	2,265	2,003	1,932						
Permanent disposal (Landfill disposal)	Japan	1	1	2	2					
Outside Japan	1,913	2,264	2,001	1,931						
Global total	978	421	514	478						
Bio-processing and chemical processing	Japan	135	102	144	61					
Outside Japan	843	319	370	416						

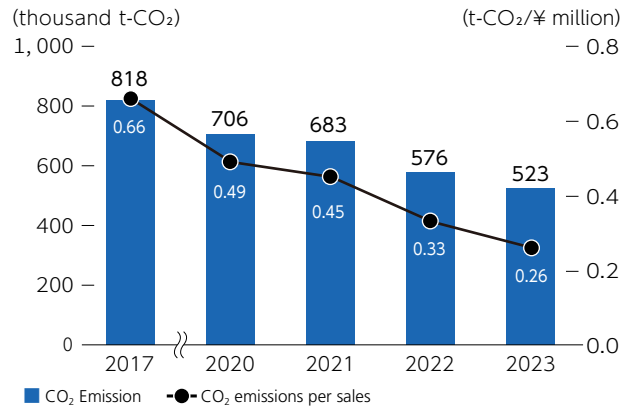
*1 Five group companies: Otsuka Pharmaceutical, Otsuka Pharmaceutical Factory, Taiho Pharmaceutical, Otsuka Chemical, and Otsuka Foods *2 Specially controlled industrial waste by Japanese regulations; in other countries, the classification is based on the respective national standards

Global energy composition (converted to heat quantity: GJ/year)

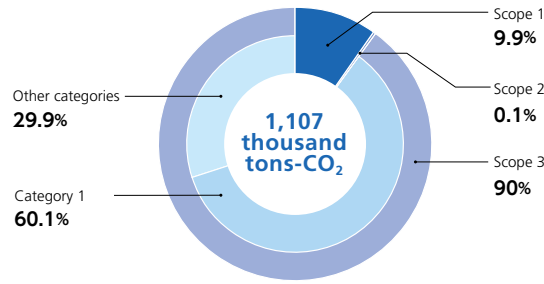


*Electricity: Calculated using a conversion factor 3.6MJ/kWh based on secondary energy consumption.
 Energies other than electricity: Comply with the procedures for entry in periodic reports and medium- and long-term plans specified in the FY 2024 version of the Act on Rationalizing Energy Use.

CO₂ emissions per sales

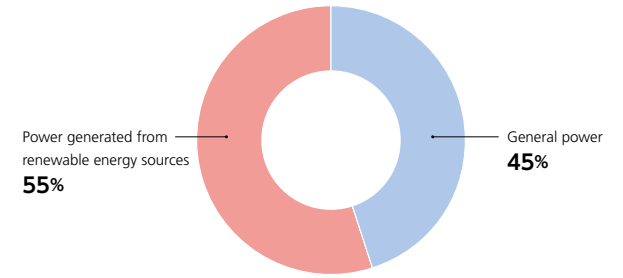


GHG Emissions throughout the Value Chain

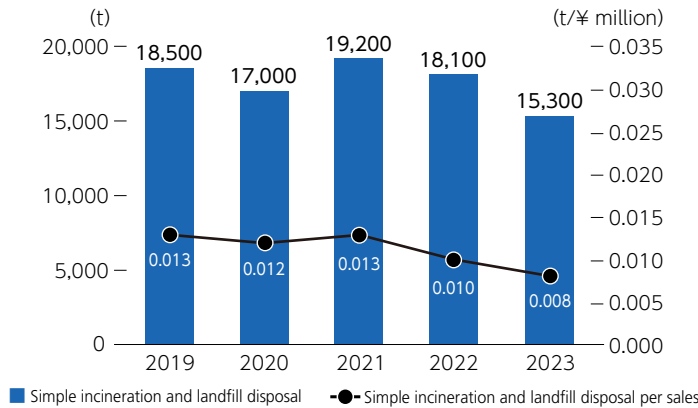


Scope: Five group companies: Otsuka Pharmaceutical, Otsuka Pharmaceutical Factory, Taiho Pharmaceutical, Otsuka Chemical, and Otsuka Foods

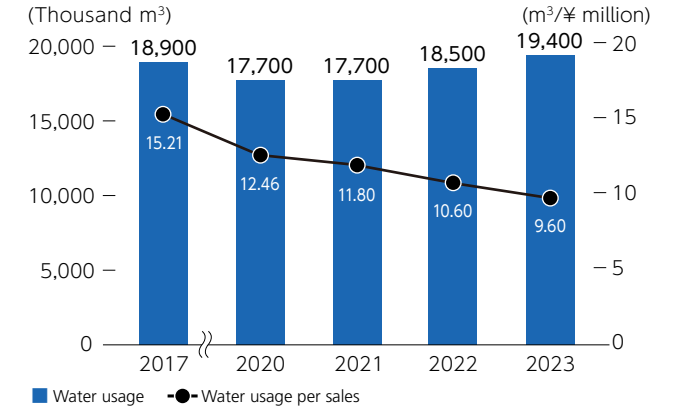
Global renewable energy ratio



Simple incineration and landfill disposal per sales



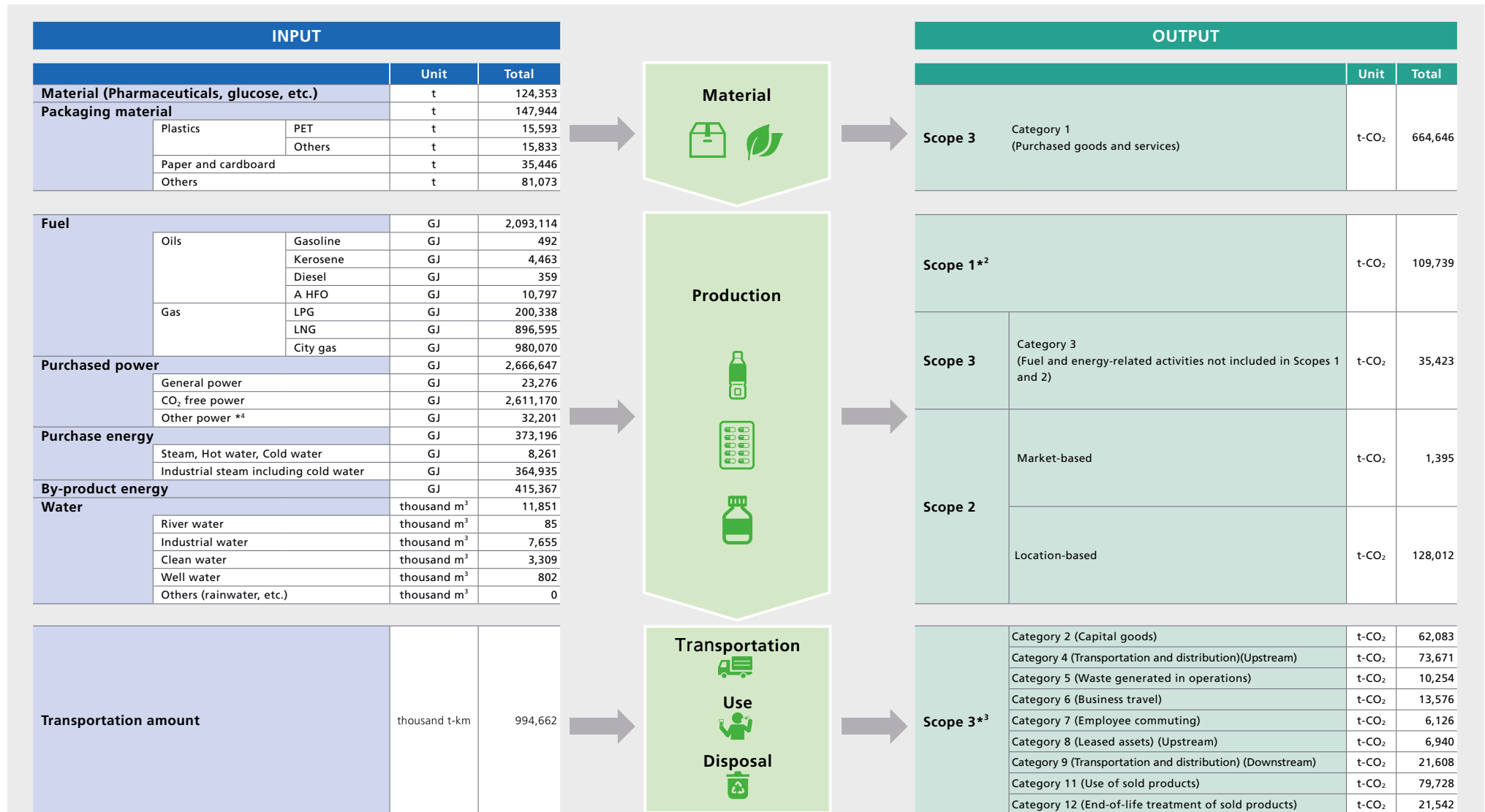
Water Usage, Water Usage per Sales



Reporting of Violations of Environmental Laws and Regulations

In FY 2023, the Otsuka Group had 11 violations of environmental laws and regulations (inadequate reporting, inadequate storage and handling of combustibles, and waste water exceeding the standards). We have completed the correction of the violations, and will make efforts to prevent recurrence. We were not assessed any environmental fines.

Material Balance over the Life Cycle of the Business*1



*1 Five group companies: Otsuka Pharmaceutical, Otsuka Pharmaceutical Factory, Taiho Pharmaceutical, Otsuka Chemical, and Otsuka Foods *2 Indirect emissions from energy sources and indirect emissions from freon leak volume and during the production of carbonated beverages, etc. *3 Categories 10 and 13 to 15 are not applicable *4 Power generation by co-generation systems

Environmental Management System

Acquisition of Integrated ISO 14001 Certification for the Otsuka Group

To strengthen Group-wide efforts toward more efficient and effective environmental activities, the Otsuka Group began acquiring ISO14001 integrated certification in August 2020. In 2023, the certification expanded to include eight companies*1 in Japan and Otsuka Holdings, the supervising organization. Under the integrated environmental goals and management systems outlined in the certification, we will further strengthen our environmental initiatives and make Group-wide efforts to achieve the goals.

The Otsuka group has acquired ISO 14001 certification including integrated certification at 12 companies in Japan and 15 overseas (as of the end of December 2023).

*1 Otsuka Pharmaceutical, Otsuka Pharmaceutical Factory, Taiho Pharmaceutical (including its subsidiary, Okayama Taiho Pharmaceutical), Otsuka Chemical, Otsuka Foods, Otsuka Techno, EN Otsuka Pharmaceutical, and Higashiyama Film



ISO 14001 Certification

■ Otsuka Group's subsidiaries' acquisition of ISO 14001 certification

Acquisition rate 58.3% (Japan80.0%, Outside Japan39.2%)

* All production sites of the consolidated Otsuka Group

Japan: 12 Companies (Certified Companies)	Integrated certification as Otsuka Holdings (Otsuka Pharmaceutical Co., Ltd. , Otsuka Pharmaceutical Factory, Inc, Otsuka Chemical Co., Ltd. , Otsuka Food Co., Ltd., Otsuka Techno Corporation, EN Otsuka Pharmaceutical Co., Ltd., Higashiyama Film Co., Ltd.) Otsuka Packaging Industries Co., Ltd. J.O. Pharma Co., Ltd. Otsuka Electronics Co., Ltd. Otsuka Ohmi Ceramics Co., Ltd.
Outside Japan: 15 Companies (Certified Companies)	Taiwan Otsuka Pharmaceutical Co., Ltd. Korea Otsuka Pharmaceutical Co., Ltd. Nutrition & Sante SAS Nutrition & Sante Iberia SL Otsuka Pakistan Ltd. PT Amerta Indah Otsuka PT Otsuka Indonesia Zhejiang Otsuka Pharmaceutical Co., Ltd. Egypt Otsuka Pharmaceutical Co., S.A.E. PT Widatra Bhakti P.T.Lautan Otsuka Chemical Zhangjiagang Otsuka Chemical Co., Ltd. Hebron S.A. Otsuka Techno Vietnam Co., Ltd. Tianjin Otsuka Beverage

As of December, 2023

Third-Party Assurance

To improve the transparency and reliability of its environmental data, we have received a third-party assurance from KPMG AZSA Sustainability Co., Ltd. We have received assurances for greenhouse gas emissions Scopes 1 and 2 (CO₂ emissions from energy sources, including energy consumption) and Scope 3 (category 1). We are making efforts to understand the trends in emissions and improve them. We will continue to expand the scope of verification and further enhance the reliability of our data.



[Third-Party Assurance Report](#)

