

Environment

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Environmental Management

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Policies and Our Approach

The circular system consisting from plants and forests nurtured by water, rivers, oceans, atmosphere, and the ecosystem made by living things are the basis of all life.

As a company that delivers the blessings of water and nature to our customers, we believe that protecting beautiful and clean water with healthy ecosystems, using them appropriately, and replenishing to nature is a great responsibility.

Ingraining this concept in every part of the Group, Suntory strives to build a prosperous and sustainable society by preserving and regenerating the natural environment and reducing environmental impact.

Suntory Group's Environmental Principles

Suntory Group sets principles that clearly indicate our prioritized environmental initiatives such as achieving water security, conserving and regenerating biodiverse ecosystems, promoting a circular economy and transitioning to a net zero carbon society (established 1997, revised 2022). To achieve a vibrant global environment, we are championing the transformation to a sustainable society by collaborating with our stakeholders, deepening dialogues with local communities, and transparently disclosing our progress.

Suntory Group's Environmental Principles

At Suntory Group, environmental management is at the core of our business strategy.

In our commitment to cultivating a sustainable and vibrant society now and in the future, these environmental principles inform the actions we take each day across our entire value chain.

1. Achieving water security

Water is the most vital resource for our business. At Suntory, we aim to become net water positive by using water carefully and localizing water stewardship to contribute to nature's healthy water cycle.

2. Conserving and regenerating biodiverse ecosystems

Thriving water and agricultural systems are crucial to our business. We strive to protect and regenerate biodiversity through local water source conservation and sustainable agricultural practices.

3. Promoting a circular economy

To effectively reduce waste and efficiently utilize limited resources, we imbed sustainable principles throughout the lifecycle of our products, promote the 3Rs (reduce, reuse, recycle) for all raw materials, use renewable resources when available, and collaborate with stakeholders to build a fundamentally circular system.

4. Transitioning to a net zero-carbon society

In the face of climate change, we are doing our part to achieve a net-zero carbon society by reducing greenhouse gas emissions across our value chain.

5. Engaging with society

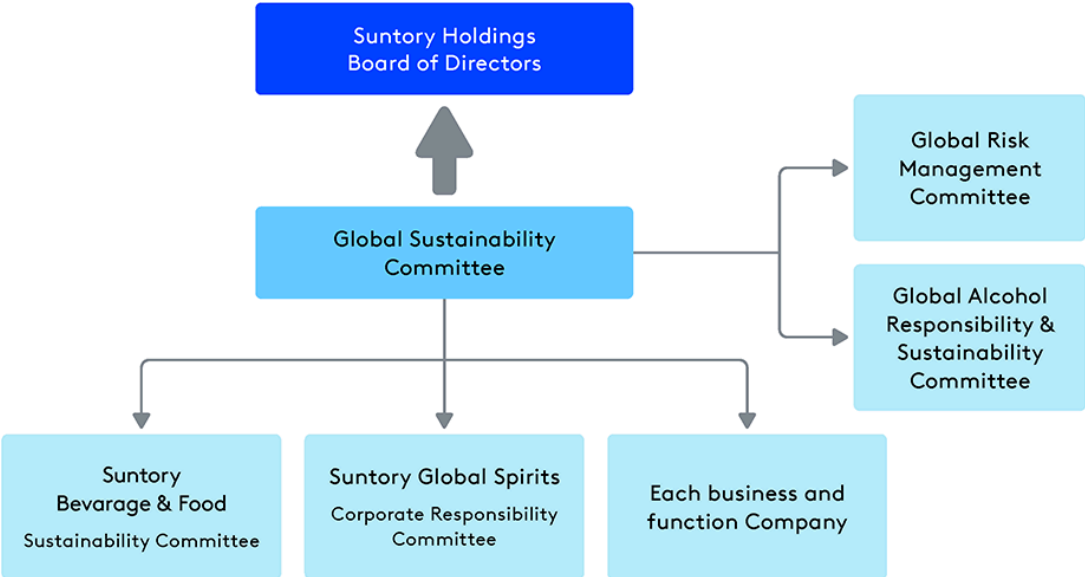
To achieve a vibrant global environment, we are championing the transformation to a sustainable society by collaborating with our stakeholders, deepening dialogues with local communities, and transparently disclosing our progress.

Promoting Structure

Global Sustainability Committee

To promote sustainability management, the Global Sustainability Committee (GSC) acts as an advisory committee to the Board of Directors. The Group's sustainability strategies and the progress on priority themes (water, climate change, containers and packaging, raw ingredients, health, human rights and enriching life) are discussed in the GSC under the lead of the Chief Sustainability Officer. The progress of environmental and social activities as well as business risks and opportunities are reported to the Board of Directors on a quarterly basis. In addition, the Board of Directors are provided with the opportunities to hear advices from the third party experts on sustainability management.

Suntory Group's Environmental Management Promoting Structure



Targets and Progress

Suntory Group established the Environmental Vision toward 2050 and Environmental Targets toward 2030 to provide clear direction to our environmental management. As we engage in greater efforts to address global issues and work toward the realization of a sustainable society, we revised the greenhouse gas (GHG) emissions reduction targets in the Environmental Targets toward 2030 in April 2021, and revised our water targets in December 2021.

Environmental Vision toward 2050



Water Sustainability

- Reduce the water intensity of production at our owned plants*¹ by **50%***² globally.
- Replenish more than 100% of water used at all of our owned plants globally through conservation of the surrounding ecosystem.
- Achieve sustainable water use for all key ingredients.
- Share the Sustainable Water Philosophy to the communities where our business operates.



Climate Change Measures

- Aim for net **zero** greenhouse gas emissions across the whole value chain by 2050
- Continue to promote energy conservation, proactively implement renewable energy solutions, utilize next-generation infrastructure options and work together with stakeholders across the value chain in order to contribute to realizing a decarbonized society



Environmental Targets toward 2030



Reduction of water used in direct operation

Reduce the water intensity of production at our owned plants*¹ by **35%***² globally. In addition, explore reduction of absolute amount of water withdrawn in highly water stressed areas.



Water replenishment

Replenish more than **100%** of water used in at least 50% of our owned plants*¹ globally, including all those in highly water stressed areas, through local water source conservation efforts.



Sustainable water use in raw ingredients

Collaborate with suppliers to improve water-use efficiency in the production of water-intensive key ingredients*³ in highly water stressed areas.



Water education and access to safe water

Expand water education programs and initiatives to provide safe water access for more than **1 million people**.

Greenhouse gas (GHG)

- Reduce GHG emissions from our direct operations by **50%***⁴
- Reduce GHG emissions across our entire value chain by **30%***⁴



*1 Suntory Group plants that manufactures finished products

*2 Reduction per unit production based on the business fields in 2015

*3 Coffee, barley, grapes

*4 Based on emissions in 2019



Water Sustainability

Reduction of water used in direct operation

- Reduced the water intensity of production by **28%** compared to 2015.

Water replenishment

- Water resource cultivation activities implemented in **41%** of all owned plants globally.

Sustainable water use in raw ingredients

- As an initiative on barley production through regenerative agriculture, we began working with our malt suppliers to verify the improvement of water use efficiency by improving soil water retention.
- Started building a pilot program to assess and support water use through regenerative agriculture for coffee farmers in the Cerrado region of Brazil.

Water education and access to safe water

- Total **1,070,000** people
Water education program:
710,000 people
Provision of safe water:
360,000 people



Climate Change Measures

Greenhouse gas (GHG)

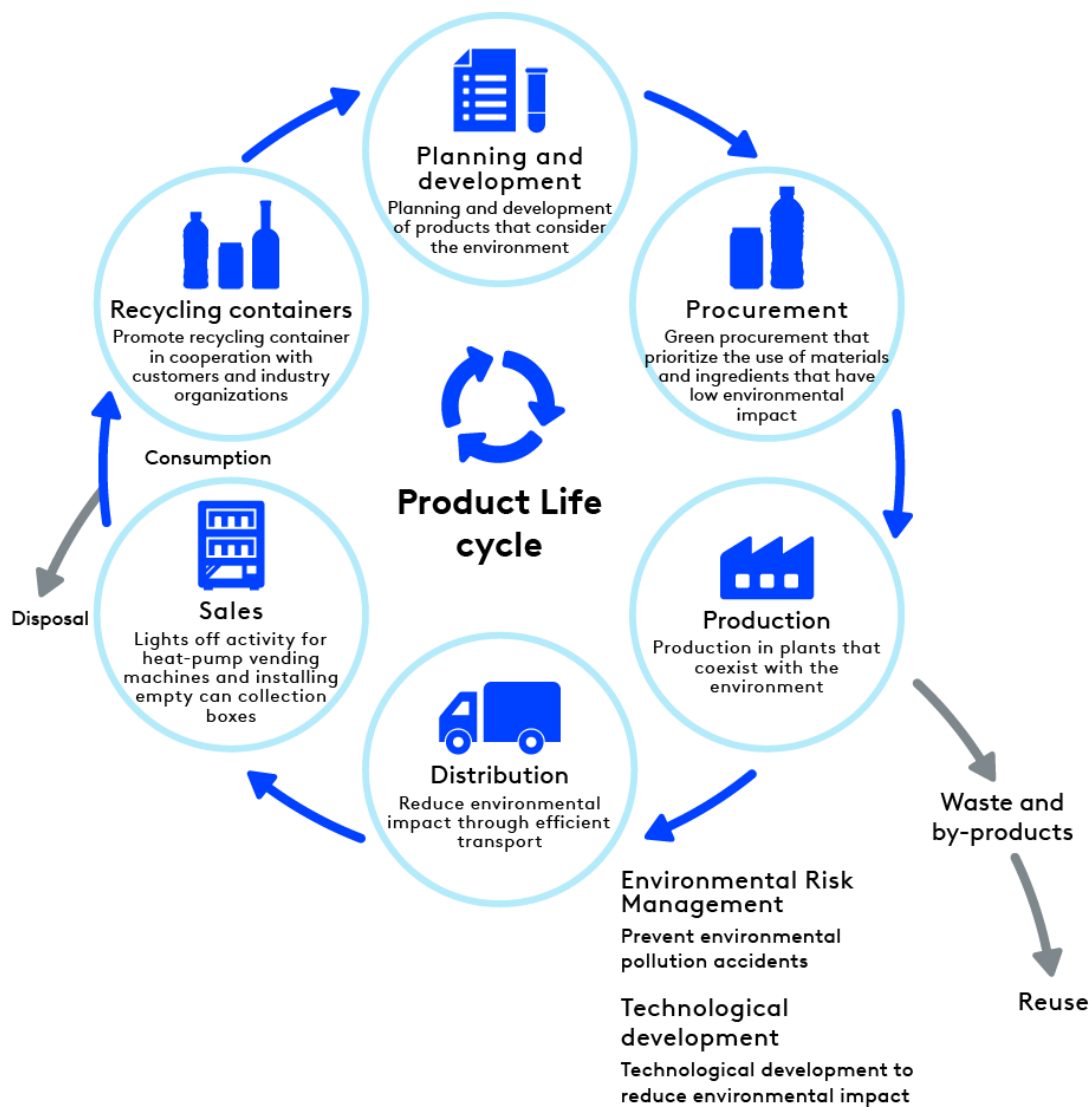
- Direct operations
24% reduction compared to 2019
- **7.8%** reduction compared to 2019

Our Initiatives

Reducing Environmental Impact in the Entire Product Life Cycle

Suntory Group generates various by-products and waste from a wide range of business activities. We are committed to reducing environmental impact by quantitatively understanding our impact on the planet throughout a product's life cycle - from planning and development to disposal and recycling.

In addition, following the expansion of business overseas, we assess the environmental impact of overseas production sites to determine the environmental impact on a global scale. Suntory Group actively communicates with the suppliers throughout the entire supply chain.



Compliance with environmental laws and regulations

In addition to complying with environmental laws and regulations (such as the Act on Promotion of Global Warming Countermeasures and the Energy Conservation Act in Japan), each Suntory Group plant is committed to environmental management by setting voluntary standards for wastewater treatment, boiler facilities and other environmental facilities that are equal to or more stringent than those set by laws and regulations.

In 2023, no serious accidents or violations affecting environmental pollution occurred.

Group-wide promotion of ISO 14001 Certification

We have actively advanced the acquisition of the international ISO14001 certification standard at each Group company as one method to continually evolve by integrating business and environmental activities. With the completion in acquiring the integrated certification and the start of operations at Group companies* in Japan, we are working to enhance management to abide by laws at sites with a low environmental burden and conduct even more efficient environmental management with these sites as targets from 2017. We are in the process of obtaining certifications at overseas Group companies with focus on our production sites. We are approximately 70% complete in certifying overseas Group company production sites as of 2023.

We are enhancing the links between each department involved with the value change of businesses at each Suntory Group company to promote business activities from environmental perspectives in all stages from the procurement of ingredients to disposal.

* Group companies complying to the Japanese SOX Act

[Suntory Group ISO 14001 Certification List](#)

Promoting Environmental Education in the Group

We promote environmental education to raise employees' environmental awareness. We implemented various environmental education initiatives including e-learning for all Group employees in Japan and sharing information on the Intranet. In addition, we regularly hold workshops and seminars to learn specific skills that are required in each operation. We also have started online program on sustainability management that can be taken by all Group employees globally.



Seminar on managing Wastes Disposal and Public Cleansing Act

[For details, please see the Data List.](#)

First Hand Experience with Forestry at Suntory Natural Water Sanctuary

We are advancing employee forestry volunteer activity at Suntory Natural Water Sanctuaries. Many employees and their families have participated until 2013.

From 2014, the program was conducted with an aim to deepen understanding of corporate philosophy and approximately 8,000 employees in alcoholic and non-alcoholic businesses have participated so far. The program is continuing as a part of new employee on-board programs.



Forestry Maintenance Training for Employees

Promoting Environmental Action on the Intranet and Internal Magazine

We are sharing basic environmental information, environmental laws and ordinances related to our business, internal guidelines and other materials on the intranet. We are also raising awareness in our employees and encouraging action through e-learnings and sharing information on sustainability portal site.

The internal magazine MADO and the e-MADO published on our intranet play a role in presenting the latest environmental activities and information of Suntory Group to enlighten not only employees but also their families.

Green Bonds

Suntory Group has formulated the Sustainable Finance Framework as a sustainability finance initiative aiming to achieve a decarbonized society and reduce water consumption. Based on this Sustainable Finance Framework, Suntory Holdings Limited plans to issue green bonds that will use the proceeds for businesses that contribute to solving environmental issues among SDGs bonds.

[For details, please see the Green Bonds.](#)

Suntory Group ISO 14001 Certification List (as of the end of 2023)

Japan

- Suntory Holdings Limited
- Suntory Business Systems Limited

Non-alcoholic Beverages and Food

- Suntory Beverage & Food Limited
- Suntory Products Limited
- Suntory Products Ltd. Haruna Plant
- Suntory Products Ltd. Hanyu Plant
- Suntory Products Ltd. Tamagawa Plant
- Suntory Products Ltd. Kanagawa Ayase Plant
- Suntory Products Ltd. Suntory Tennensui Minami Alps Hakushu Plant
- Suntory Products Ltd. Kisogawa Plant
- Suntory Products Ltd. Suntory Tennensui Kita Alps Shinano-no-Mori Water Plant
- Suntory Products Ltd. Ujigawa Plant
- Suntory Products Ltd. Takasago Plant
- Suntory Products Ltd. Suntory Okudaisen Bunanomori Water Plant
- Suntory Wellness Limited
- Suntory Coffee Roastery LTD. Oyama Atsugi Plant
- Suntory Coffee Roastery LTD. Ebina Plant

Alcohol Beverages

- Suntory Spirits Limited
- Suntory Spirits Ltd. Hakushu Distillery
- Suntory Spirits Ltd. Yamazaki Distillery
- Suntory Spirits Ltd. Ohmi Aging Cellar
- Suntory Spirits Ltd. Tochigi Azusanomori Plant
- Suntory Spirits Ltd. Osaka Plant
- Suntory Spirits Ltd. Gunma Brewery
- Suntory Spirits Ltd. Tokyo Musashino Brewery
- Suntory Spirits Ltd. Kyoto Brewery
- Suntory Spirits Ltd. Kumamoto Aso Brewery
- Suntory Spirits Ltd. Tominooka Winery
- Suntory Spirits Ltd. Shiojiri Winery
- SUNTORY CHITA DISTILLERY LIMITED
- Iwanohara Vineyard Co., Ltd.
- Suntory Malting LTD.
- OSUMISYUZO LIMITED

Sales and Marketing

- OKINAWA SUNTORY LIMITED
- Suntory Foods Ltd.
- Suntory Beverage Solution Ltd.
- Suntory Foods Okinawa Ltd.
- Japan Beverage Ecology Inc.
- Suntory Field Expert Company Limited
- Sunvend Co., Ltd.

- Harata Vending Service Limited
- KAGAWA PEPSI COLA SALES LIMITED.

Research and Development Center

- Suntory World Research Center
- Suntory Products Development Center

Food Service

- DYNAC HOLDINGS CORPORATION
- DYNAC CORPORATION
- DYNAC PARTNERS CORPORATION
- PRONTO CORPORATION

Maintaining Vending Machines, Etc.

- UNION TRUST Co., Ltd.

Overseas

Non-alcoholic Beverages and Food

Suntory Beverage & Food Europe

- Suntory Beverage & Food France Meyzieu (France)
- Suntory Beverage & Food France La courneuve (France)
- Suntory Beverage & Food France Gadagne (France)
- Suntory Beverage & Food France Donnery (France)
- Suntory Beverage & Food Spain Tordera (Spain)
- Suntory Beverage & Food Spain Carcagente (Spain)
- Suntory Beverage & Food Spain Toledo (Spain)
- Suntory Beverage & Food Spain Sevilla (Spain)
- Suntory Beverage & Food Great Britain and Ireland Coleford (U.K)

Suntory Beverage & Food Asia Pacific

- Suntory Beverage & Food Thailand Leam Chabang (Thailand)
- Suntory Beverage & Food Thailand Pin Thong (Thailand)
- Suntory Beverage & Food Taiwan Taichung (Taiwan)
- Suntory Beverage & Food Malaysia Shah Alam (Malaysia)
- International Refreshment Singapore Pte. Ltd. (Singapore)
- Suntory PepsiCo Vietnam Beverage Bac Ninh (Vietnam)
- Suntory PepsiCo Vietnam Beverage Quang Nam (Vietnam)
- Suntory PepsiCo Vietnam Beverage Dong Nai (Vietnam)
- Suntory PepsiCo Vietnam Beverage Hoc Mon (Vietnam)
- Suntory PepsiCo Vietnam Beverage Can Tho (Vietnam)
- Suntory PepsiCo Beverage Thailand Rayong (Thailand)
- Suntory PepsiCo Beverage Thailand Saraburi (Thailand)
- Suntory Beverage & Food New Zealand Wiri (New Zealand)

Alcohol Beverages

Suntory Global Spirits Inc.

- Frankfort (USA)
- Clermont (USA)

- Booker Noe (USA)
- Maker's Mark (USA)
- Calgary (Canada)
- Sauza (Mexico)
- Behror (India)
- Courvoisier-D (France)
- Courvoisier-F (France)
- Cooley (Ireland)
- Palazuelos (Spain)
- Valverde (Spain)
- Ardmore (U.K.)
- Auchentoshan (U.K.)
- Bowmore (U.K.)
- Glen Garioch (U.K.)
- Laphroaig (U.K.)
- Springburn (U.K.)
- Cruzan (Virgin Islands,U.S.)

Suntory Wine International Limited

- Chateau Lagrange (France)

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Green Bonds

Suntory Group's Sustainability Initiatives

Suntory's history began in 1899 when Torii Shinjiro opened Torii Shoten in Osaka City. He held an untiring "Yatte Minahare" spirit, with a belief in "Giving Back to Society" as a Company. These two management philosophies have been continuously handed down from generation to generation within Suntory since its foundation more than 120 years ago.

In the 2000s, with increased recognition of global climate change and other common issues around the world, the Company launched several key initiatives. In 2003, the Natural Water Sanctuary Project was launched, and in 2004, the next-generation environmental education program, "Mizu-iku", aiming at coexistence with water and natural environments cultivating water resources.

Since then, under the Group's promise of "Mizu To Ikiru" (Sustained by Nature and Water), to its customers and society, the Suntory Group has been engaged in environmental activities with a long-term perspective. In 2019, we formulated the Suntory Group Sustainability Vision to promote group-wide activities to solve common global sustainability issues.

Under Suntory's Environmental Vision toward 2050, we aim to reduce water usage at our plants worldwide by 50%^{*1} and achieve net-zero greenhouse gas (GHG) emissions across the entire value chain. Suntory's Environmental Target toward 2030, will assist in achieving this by obtaining SBT certification, reducing water usage at our plants by 35%^{*1} globally, reducing GHG emissions at our sites by 50%^{*2}, and reducing GHG emissions across the entire value chain by 30%^{*2}. Against this backdrop, Suntory has formulated the Sustainable Finance Framework as a sustainability finance initiative aiming to achieve a decarbonized society and reduce water consumption. This is the first framework in Japan that incorporates targets for reducing water consumption, and we will further promote our sustainability initiatives in the future.

*1 Reduction per unit production based on the business fields in 2015

*2 2019 emissions as base line

Sustainable Finance Framework

Suntory Holdings Limited has developed its Sustainable Finance Framework as described below based on the following relevant principles, etc.* for funding through Sustainable Finance.

The Company plans to raise funds through sustainable finance under the Framework after the establishment of the Framework.

The financing methods available under the Framework include Green bonds, Green loans, Sustainability-linked bonds and Sustainability-linked loans.



[Suntory Sustainable Finance Framework \(Overview\)](#) 

[Suntory Sustainable Finance Framework](#) 

* Principles/Guidelines

- Green Bond Principles (GBP) 2021 (International Capital Market Association (ICMA))
- Green Loan Principles 2023 (Loan Market Association (LMA), etc.)
- Green Bond Guidelines 2022 (The Ministry of the Environment of Japan)

- Green Loan Guidelines 2022 (The Ministry of the Environment of Japan)
- Sustainability-Linked Bond Principles 2023 (ICMA)
- Sustainability-Linked Loan Principles 2023 (LMA, etc.)
- Sustainability-Linked Bond Guidelines 2022 (The Ministry of the Environment of Japan)
- Sustainability-Linked Loan Guidelines 2022 (The Ministry of the Environment of Japan)

Second Party Opinion

Suntory Holdings Limited received a Second Party Opinion from Moody's to ensure transparency and alignment with relevant principles and to attract more investors.

[Moody's Second Party Opinion](#) 

Green Bonds Overview

Green Bonds (Unsecured Corporate Bonds No.13)



Name of the Bond	Suntory Holdings Limited 13th Publicly-offered Corporate Bonds (Green bond with specific inter-bond pari passu clause)
Issue Amount	20 Billion Yen
Term	5-years
Coupon	0.628%
Issue Date / Maturity Date	November 24, 2023 / November 24, 2028
Interest Payment Date	May 24 and November 24 each year
Ratings	AA (Japan Credit Rating Agency, Ltd.)
Use of Proceeds	<ul style="list-style-type: none"> • Energy efficiency <ul style="list-style-type: none"> - Capital investment contributing to energy-saving at the plants we own • Renewable energy <ul style="list-style-type: none"> - Costs for procurement of green hydrogen - Capital investment for the construction of biogas refining facilities, biomass heat supply facilities or biomass power generation facilities through wastewater treatment - Costs for procurement of electricity generated from renewable energy (purchase of renewable energy certificates)
Lead Managers	Mizuho Securities Co., Ltd., Mitsubishi UFJ Morgan Stanley Securities Co.,Ltd., BofA Securities Japan Co., Ltd.
Structuring Agent*	Mizuho Securities Co., Ltd.

* A securities company that supports the implementation of sustainable finance, including the issuance of green bonds, through the development of a sustainable finance framework and advice on obtaining second-party opinions.

Green Bonds (Unsecured Corporate Bonds No.13) Report (As of December 31, 2023)

Suntory Holdings Limited allocated 8.44 Billion Yen to projects which fulfill eligibility criteria from 20 Billion Yen Suntory Holdings Limited 13th Publicly-offered Corporate Bonds (Green Bonds with specific inter-bond pari passu clause) issued on November 24, 2023.

11.56 Billion Yen of unallocated funds will be allocated by 2025.

Eligibility Criteria	Allocated Amount	Impact Reporting
<p>Capital investment contributing to energy-saving at the plants we own - Adoption of best available technologies as of the installation of facilities</p> 	<p>JPY7,700MM (Refinance : JPY7,700MM)</p>	<p>Reduction in GHG emissions : 3,510t-CO₂e^{*1}</p>
<p>Costs for procurement of green hydrogen</p> 	<p>JPY0MM To be allocated in 2025</p>	<p>—</p>
<p>Capital investment for the construction of biogas refining facilities, biomass heat supply facilities or biomass power generation facilities through wastewater treatment</p>	<p>JPY590MM (Refinance : JPY590MM)</p>	<p>Reduction in GHG emissions : 2,987t-CO₂e^{*2}</p>
<p>Costs for procurement of electricity generated from renewable energy (purchase of renewable energy certificates)</p>	<p>JPY150MM (Refinance : JPY150MM)</p>	<p>Reduction in GHG emissions : 124,294t-CO₂e^{*3}</p>
<p>Total</p>	<p>JPY8,440MM (Refinance : JPY8,290MM)</p>	<p>Above impacts represent environmental improvement effect for project as a whole</p>

(*1) Latest GHG emissions (or their estimate) × Improvement in energy consumption rate

(*2) Power generation using biogas × GHG emission factor of electricity, Reduction in use of city gas × GHG emission factor of city gas, or GHG emissions with conventional design (gas boilers or coal boilers) – GHG emissions with new design (only methane gas boilers after abolishing coal boilers), etc.

(*3) Power consumption × GHG emission factor of electricity

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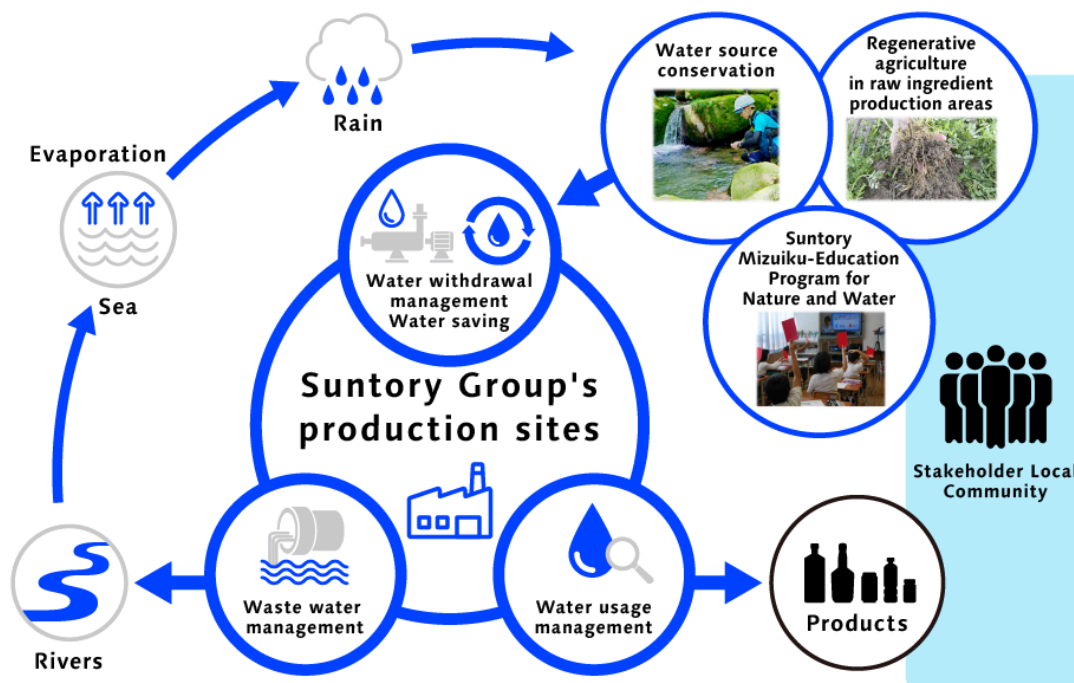
Water Sustainability

- ▼ Policies and Our Approach
- ▼ Promoting Structure
- ▼ Targets and Progress
- ▼ Our Initiatives

Policies and Our Approach

Water is a valuable resource for supporting people's lives and the source of the Suntory Group's corporate activities. Water is a renewable resource and will not disappear from the planet, but only about 0.01% of the planet's freshwater is available for human use. On the other hand, there is a prediction that people may face severe water scarcity in the future due to the increase of global population and climate change; that is to say, approximately five billion people will suffer from water shortages globally by 2050*. The global water scarcity involves numerous issues; in addition to drinking and domestic use, a substantial amount of water is used in food production. We have placed achieving water sustainability as the priority of the Suntory Group's Environmental Principles to promote various initiatives.

* World Meteorological Organization (WMO) "The State of Climate Services 2021"



➤ For more information on the Basic Environmental Policy, Environmental Vision 2050, and Environmental Target 2030, see [Environmental Management](#).

Sustainable Water Philosophy

As a company that depends on and benefits from the water and as a company that operates globally, the Suntory Group must contribute towards a sustainable society by taking an honest look at the world's water challenges. Based on our Basic Environmental Principle, we have formulated the Suntory Group Sustainable Water Philosophy to develop initiatives that contribute to solving water issues in each world region of the world. Based on this philosophy, we are developing and promoting initiatives that are tailored to the conditions for water resources in each area of the world where we do business.

Suntory Group's Sustainable Water Philosophy (Established 2017)

Water is the most important ingredient of our products, as well as a precious shared resource. In order to achieve "water sustainability," the first pillar of the Suntory Group's Environmental Policy, we want to share these values with all Suntory Group members and apply them where we operate in order to answer to our stakeholders' expectations.

1. Understanding the natural cycle of water
We investigate watersheds around our sites to understand the local hydrological cycle, using a scientific approach when needed.
2. Promoting environmentally conscious water use
We reduce the environmental impacts of water use on the natural water cycle by implementing 3R activities and returning water to nature after adequate treatment.
3. Conserving watersheds
We conserve our watersheds and endeavor to improve local water quality and quantity in cooperation with stakeholders for a sustainable future.
4. Engaging with the local community
We endeavor to support our community by fostering collective actions to solve water issues and enrich society.

Promoting Structure

Global Sustainability Committee

To promote sustainability management, the Global Sustainability Committee (GSC) acts as an advisory committee to the Board of Directors. The Group's sustainability strategies and the progress on priority themes (water, climate change, containers and packaging, raw ingredients, health, human rights and enriching life) are discussed in the GSC under the lead of the Chief Sustainability Officer.

➤ [For more information on the Global Sustainability Committee, see Environmental Management.](#)

Targets and Progress

Environmental Vision toward 2050







Water Sustainability

- Reduce the water intensity of production at our owned plants*¹ by **50%*²** globally.
- Replenish more than 100% of water used at all of our owned plants globally through conservation of the surrounding ecosystem.
- Achieve sustainable water use for all key ingredients.
- Share the Sustainable Water Philosophy to the communities where our business operates.



theme	Environmental Targets toward 2030	2023 Progress
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<p>Reduction of water used in direct operation</p> 	<p>Reduce the water intensity of production at our owned plants*¹ by 35%^{*2} globally. In addition, explore reduction of absolute amount of water withdrawn in highly water stressed areas</p>	<ul style="list-style-type: none"> • Reduced the water intensity of production by 28% compared to 2015. ➤ Initiatives to reduce the amount of water used in direct operation
<p>Water replenishment</p> 	<p>Replenish more than 100% of water used in at least 50% of our owned plants*¹ globally, including all those in highly water stressed areas, through local water source conservation efforts.</p>	<ul style="list-style-type: none"> • Water resource cultivation activities implemented in 41% of all owned plants globally. For the plants located in highly water stressed areas, activities are implemented in 37% of those areas. ➤ Initiatives at the Water Source
<p>Sustainable water use in raw ingredients</p> 	<p>Collaborate with suppliers to improve water-use efficiency in the production of water-intensive key ingredients*³ in highly water stressed areas.</p>	<ul style="list-style-type: none"> • As an initiative on barley production through regenerative agriculture, we began working with our malt suppliers to verify the improvement of water use efficiency by improving soil water retention. • Started building a pilot program to assess and support water use through regenerative agriculture for coffee farmers in the Cerrado region of Brazil. ➤ Raw Ingredient Production-related Initiatives
<p>Water education and access to safe water</p> 	<p>Expand water education programs and initiatives to provide safe water access for more than 1 million people.</p>	<ul style="list-style-type: none"> • Total 1,070,000 people Water education program: 710,000 people Provision of safe water: 360,000 people ➤ Initiatives for Water Education

*1 Owned plants that manufactures finished products and excludes plants for packaging and ingredients

*2 Reduction of water intensity of production based on 2015 baseline year

*3 Coffee, barley, grapes

➤ [For more information on water-related achievements, see the List of achievements data.](#)

Our Initiatives

Water Risk Assessment

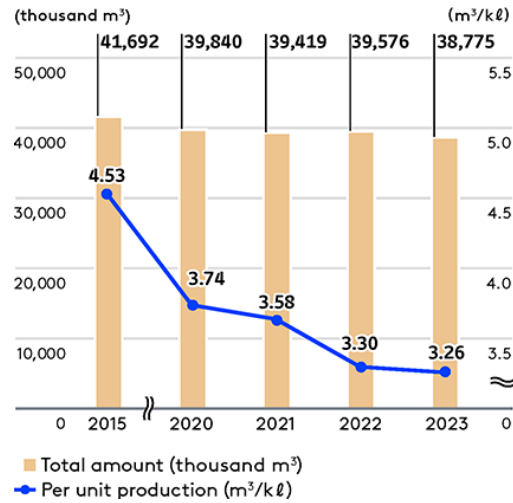
The Suntory Groups has made achieving water security a vital issue in the Suntory Group's Environmental Principles and continues to conduct various water-related assessments at Suntory Institute for Water Science which was established in 2003. We conducted risk assessment of water sustainability at our direct operation sites* for sustainable business activities. We also consider water risk assessment when developing new businesses.

* Suntory Group plants that manufacture finished products: 23 plants in Japan, 54 plants overseas

➤ [For more information, see Water Risk Assessment.](#)

Initiatives to Reduce the Amount of Water Used in Direct Operation

Trends in Water Withdrawal and Water Intensity of Production (Whole Group)



*Per unit production is the amount of usage per kiloliter produced

*2023 data covers 27 production plants in Japan and 62 production plants overseas.

Effective Use of Water Resources

The Suntory Group's plants use a large amount of water, for example, in cleaning production equipment and cooling, in addition to using it as an ingredient in our products. In order to conserve limited water resources, we intensify our activities to achieve targets toward 2030 of "Reduce water consumption at the Suntory Group plants worldwide by 35%*" through enforcement of 3Rs for water, ensuring that the minimum amount of water is required (Reduce), water can be used repeatedly (Reuse), and water can be processed and used elsewhere (Recycle).

* Reduction water intensity based on the business fields in 2015

A variety of activities related to the 3Rs are being implemented at the Minami Alps Hakushu Water Plant of Suntory Products Ltd. In particular, through advanced "water cascade" recycling process, we are an industry leader in terms of water usage per production unit.



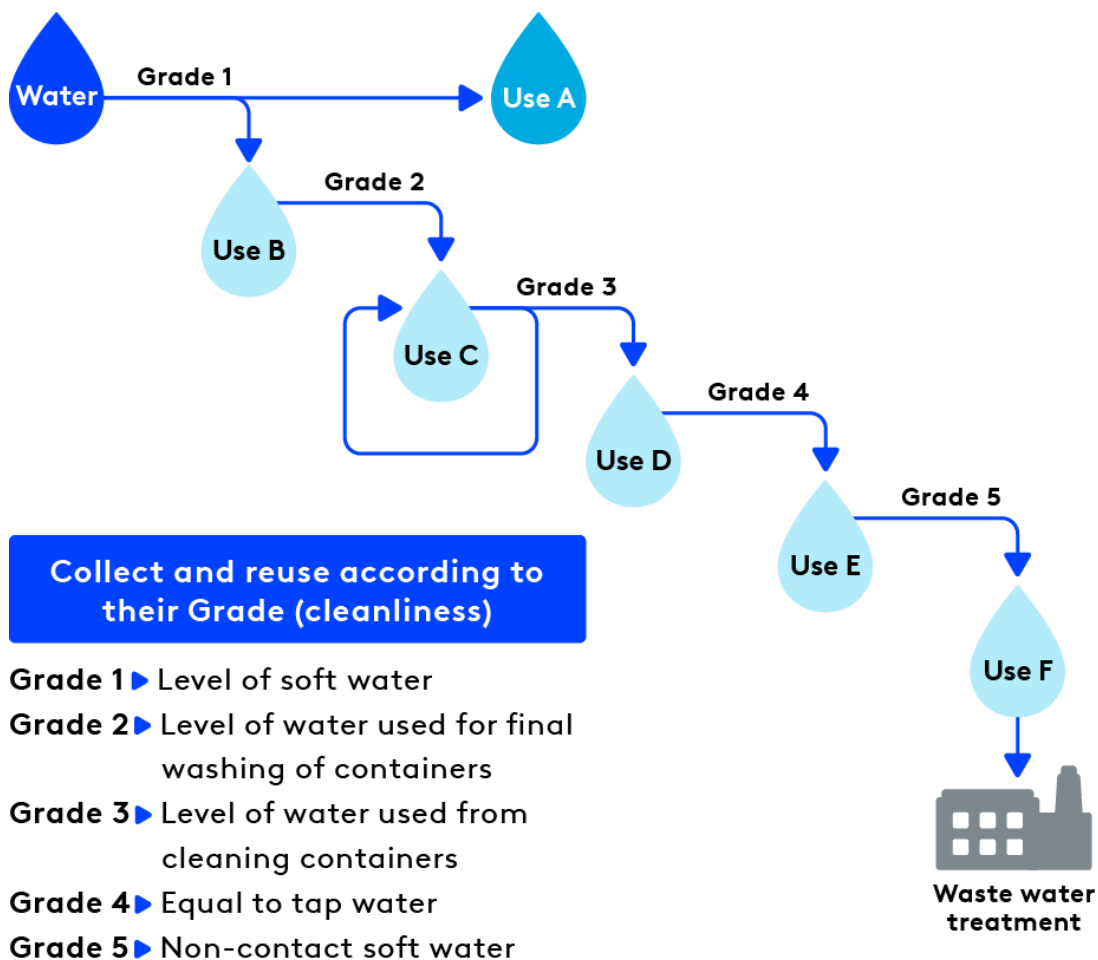
The Minami Alps Hakushu Water Plant of Suntory Products Ltd.



Reuse of water recycled at each stage of cleaning stored in 200-ton tanks

Water Cascade Recycling Process

Water used in the manufacturing process is classified into five grades based on quality, such as coolant water and cleaning water. This is a technology to reuse water in stages, from applications that require a higher grade to those that can be supplied at the next grade.



Strict Wastewater Management

The Suntory Group established voluntary standards for waste water that are equally or stricter than the legal regulations and manages quality so that we may release waste water in a state as close to nature as possible. Waste water from our plants is first purified using anaerobic waste water treatment facilities* and other equipment before it is released into sewers and rivers. Inspectors use measuring equipment to take daily readings of things like water quality under a constant monitoring regime.

* A treatment method that decomposes pollutants using microbes (anaerobic bacteria)



24-hour waste water management system

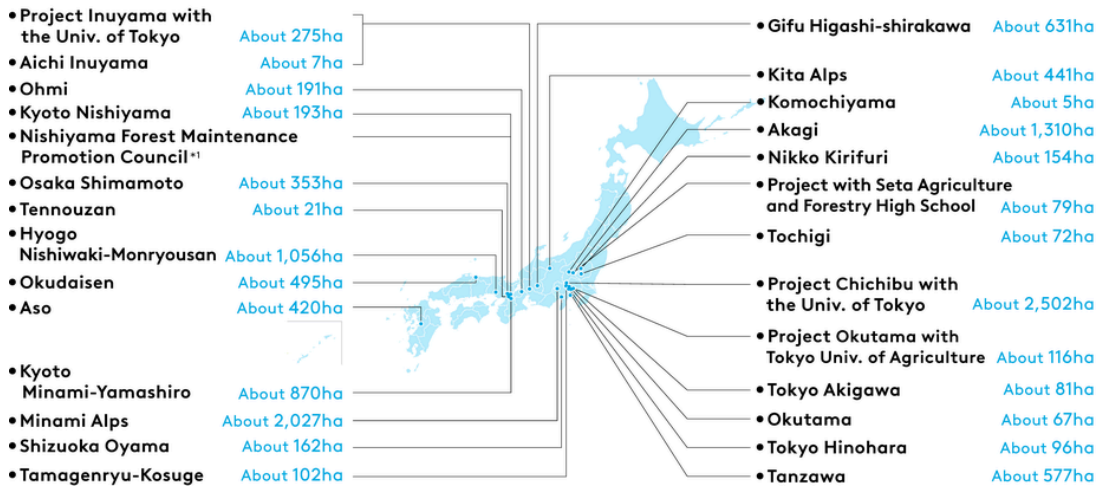
Initiatives at the Water Source

Suntory Natural Water Sanctuary (Water Source Conservation/ Preserving Biodiversity)

The Suntory Group started its Natural Water Sanctuary Initiative in 2003 to improve water resource cultivation and preserving biodiversity. The initiative has now expanded to more than 12,000 hectares in 26 locations in 16 prefectures across Japan, and is recharging twice the volume of water it pumps from underground at its owned plants in Japan. With the Suntory Institute for Water Science playing a central role, we are collaborating with researchers from various fields to carry out ongoing activities based on science, looking ahead decades or even 100 years into the future.

Suntory Natural Water Sanctuary

26 areas nationwide Around **12,000ha** (As of August 2024)



*1 In Nagaokakyo, Kyoto, we are a member of the Nishiyama forestry development promotion committee and we are cooperating in local forest preservation activities with people in the community. The area of the forests subject to this activity is not counted as part of our total Natural Water Sanctuary area.

➤ [For more information, see Suntory Natural Water Sanctuary.](#)

Water Initiatives Worldwide

The Suntory Group practices coexistence with nature in all regions of the world where we do business. We will continue to engage in various initiatives in the future with an aspiration of becoming a global pioneer of water sustainability.

United States of America

We have worked to preserve the natural environment, such as water conservation activities around our distilleries and the improvement of biodiversity in forests, to protect the precious natural resource of water. The Maker's Mark Water Sanctuary Project that began in 2016 planted American white oak trees on 33 acres of Maker's Mark distillery land (approx. 13 hectares) as a water resource cultivation effort. In 2018, new environmental conservation activities also began with the setup of a Natural Water Sanctuary on 15,625 acres of land (approx. 6,300 hectares) in the Bernheim Arboretum and Research Forest, a water resource of the Jim Beam distillery.



Mexico

In Mexico, Casa Sauza has been participating in a collaborative watershed initiative with other beverage manufacturing companies, to restore and protect the Santiago River Basin in the buffer zone of the natural protected area of Cerro Viejo through restoration against the loss of connectivity between forest and the lagoon due to the construction of a highway.

Scotland

In Scotland, the Peatland Water Sanctuary, a large-scale series of peatland restoration and conservation and watershed conservation projects, was launched in 2021. We plan to invest more than \$4 million in the restoration and conservation of 1,300 hectares of peatlands by 2030, enough to produce the amount of peat that Beam Suntory harvests every year in making its Scotch whiskies on an ongoing basis. Through this activity, we will contribute to water quality, water retention function enhancement, and biodiversity conservation. Peatlands also contribute to GHG emission control, thanks to their ability to store carbon.

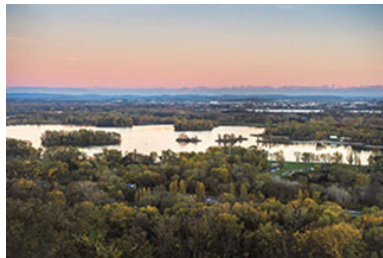


France

In France, Suntory Beverage & Food Europe entered into a 20-year partnership for the conservation of water resources in 2017 with Grand Parc Miribel Jonage, a nature park located next to the Meyzieu Plant. This partnership conducts conservation activities in the forest spanning the Grand Parc Miribel Jonage and supports educational programs for children, in addition to protecting water resources and the natural environment near the plant as well as promoting cultivation activities with the local community.

Spain

In Spain, Suntory Beverage & Food Europe engaged in ecosystem conservation activities with the cooperation of the local community, in the hope of revitalizing the ecosystem in and around the Júcar river near its plant in Carcagente. In addition, together with local universities and specialist institutions, we are conducting a hydrological survey for water source conservation activities in the Tagus River basin, centering on the Guajaraz reservoir, which is the Toledo Plant's water source. In addition, Suntory Beverage & Food Spain, a subsidiary of Suntory Beverage & Food Limited, has concluded an agreement on water source conservation activities with the city of Layos, Toledo, Spain. Beginning in January 2024, with help from local residents as well as experts and researchers in various fields, we initiated "Guardians del Tajo" (Guardians of the Tagus River) activities around the Guajaraz reservoir and the upper reaches of the reservoir, with the aim of improving water quality and biodiversity.



Vietnam

In Vietnam, Suntory Beverage & Food Asia has been contributing to repairs and installations of toilets and washrooms mainly at schools taking part in the Suntory Mizuiku since 2015 to improve the sanitary environment for children.

Thailand

Since 2019, we have been engaged in water resource preservation activities in the northern province of Chiang Mai and the southern province of Nakhon Nayok. Such activities include slowing stream currents to prevent sediment-based erosion, installing small weirs to support permeation of underground water, and planting trees to prevent soil from flowing into streams.

Raw Ingredient Production-related Initiatives

Regenerative agriculture is attracting attention for its potential to mitigate and adapt to climate change by reducing GHG emissions through reduced use of chemical fertilizers and pesticides, as well as restoration of soil biodiversity which boosts soil fertility and effective water use. Suntory Group is promoting regenerative agriculture initiatives, centered on key raw ingredients.

[▶ For more information, see Sustainable Procurement.](#)

Initiatives for Water Education

Suntory Mizuiku — Education Program for Nature and Water

Suntory “Mizuiku” — education program for nature and water started in 2004 in Japan. The program is unique to Suntory and designed for the next generation to realize the beauty of nature and the importance of water and the forests that nurture groundwater. It also inspires students to think about what each of them can do for water sustainability. The program centers on two activities: Outdoor School of Forest and Water and Teaching Program at Schools. It started online in 2020, allowing more people to participate.

Mizuiku is currently deployed in eight Countries. As of December 31, 2023, the cumulative number of participants exceeded 580,000.

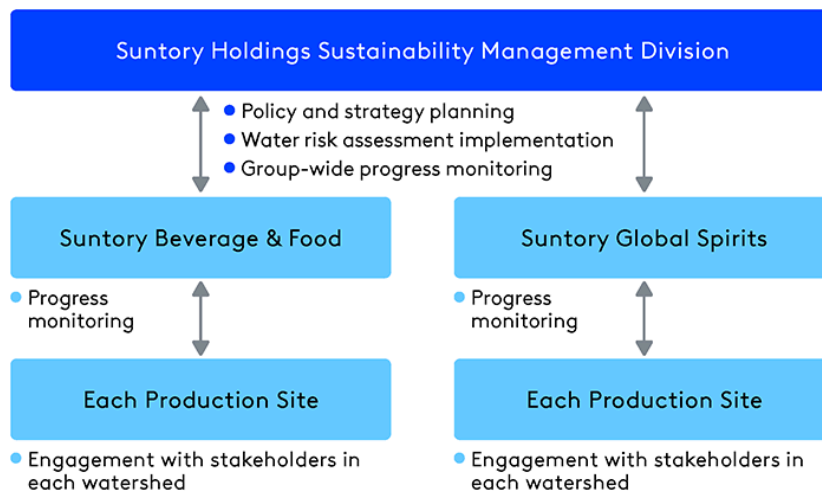
* Mizuiku is a registered trademark of Suntory Holdings Limited.



➤ For more information, see [Suntory Mizuiku — Education Program for Nature and Water](#).

Community Engagement

Suntory Group is aware that it is a member of watershed society and aims to contribute to the development of that society by collaborating closely with stakeholders to conserve water resources. To formulate policies and strategies for Suntory Group as a whole and conduct water risk assessments, the Sustainability Management Division of Suntory Holdings implements annual assessments at each production site, and based on the results, creates regular opportunities with each operating company to monitor progress for the Group overall. At each production site, we work with stakeholders including local government, NGOs, educational institutions, and the local community to address water issues in the local watershed.



Participation in Initiatives

First in Japan to earn the Alliance for Water Stewardship (AWS) Certification

In 2018, the Suntory Okudaisen Bunanomori Water Plant (Tottori Prefecture) became the first Japanese facility to receive AWS certification. The Suntory Kyushu Kumamoto Plant (Kumamoto Prefecture) followed in 2019 and the Suntory Minami Alps Hakushu Water Plant (Yamanashi Prefecture) was also certified in 2021. In 2023, the Suntory Kyushu Kumamoto Plant received Platinum certification, the highest AWS certification level. AWS is an organization founded by corporations and

NGOs, including the World Wide Fund for Nature (WWF) and The Nature Conservancy (TNC), to promote water sustainability on a global scale. AWS has developed certification in sustainable water use for factories around the world, and promotes water conservation and stewardship. In addition, as Japan's sole corporate member of AWS, Suntory Group has signed onto a partnership with the same organization* in February 2021 to contribute its expertise and take a leadership role to promote water stewardship.

* Listed under the current name of the organization. The name at the time of conclusion was AWS Asia Pacific.

[▶ For more information, see **Achieving the AWS Certification for Water Stewardship**.](#)

Endorsing the CEO Water Mandate

Suntory Group endorsed the CEO Water Mandate global platform, which is a United Nations Global Compact initiative to support the prevalence, practice and informational disclosure of water sustainability at companies.



The CEO **Water** Mandate

Water Risk Assessment

Suntory Group, which has made achieving water security a vital issue in Suntory Group's Environmental Principles, continues to conduct various water-related assessments at the Institute for Water Science, established in 2003. We conduct water-related risk assessments for sustainable business activities and use these assessments to promote environmental management. We also consider water risk assessment when developing new businesses.

Water Risk Assessment of Suntory Group's Direct Operation sites

Water is the most vital ingredient for our business, as well as a precious shared resource. As such, Suntory Group must understand the impact on our business, local communities, and the ecosystem based on water risk assessment for sustainable business growth.

Based on this, Suntory Group conducted a risk assessment of water sustainability at direct operation sites*.

* Suntory Group plants that manufacture finished products: 23 plants in Japan, 54 plants overseas

1. Water Stress Situation in Countries where Direct Operation Sites are Located

We identified the water stress situation in countries where direct operation sites are located using Baseline Water Stress, an indicator in the Aqueduct Country Ranking developed by the World Resources Institute. The Aqueduct Country Ranking is a global tool for uniformly assessing the water risk of each country.

Baseline Water Stress	
Extremely high	India
High	Mexico, Spain, Thailand
Medium-high	USA, Germany, Vietnam
Low-medium	Japan, Canada, UK, France, Malaysia, Taiwan
Low	Ireland, New Zealand

* Based on country scores for Baseline Water Stress as used in Aqueduct 4.0 Current and Future Country Rankings by World Resources Institute.

2. Water Risk Assessment in Watersheds where Direct Operation Sites are Located

In addition to assessing the water stress situation in countries where direct operation sites are located, we prioritized the area by determining the water supply risk of all watersheds where they are in to manage the risks. The following is the assessment process and progress of risk management.

Primary Assessment — Prioritization (Screening) of sites based on water stress assessment

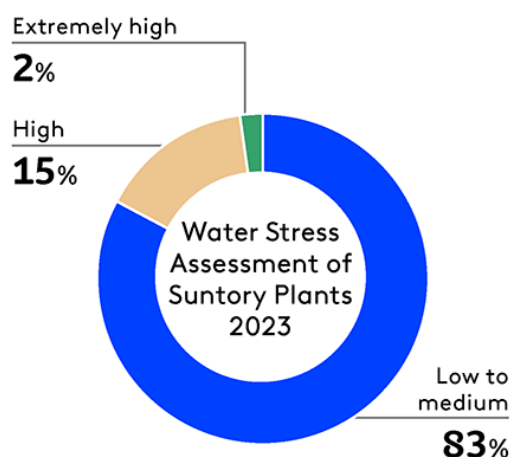
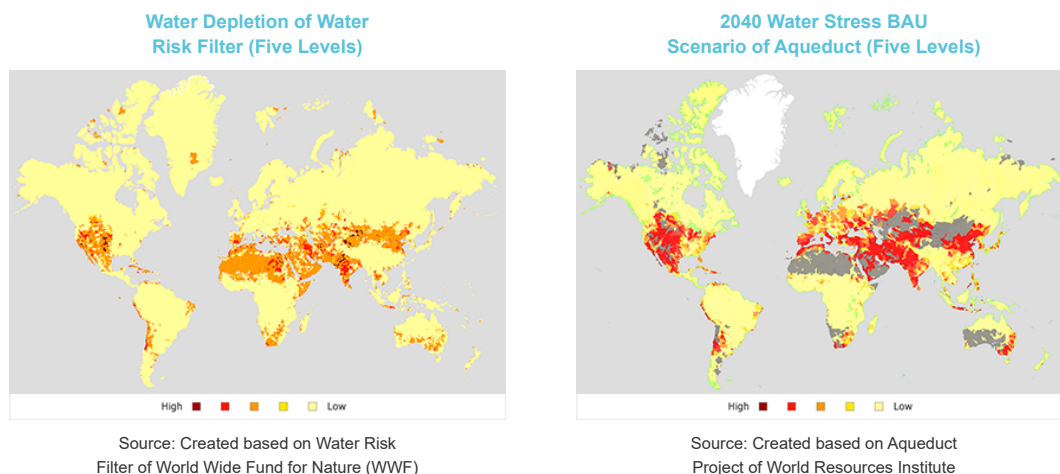
The primary assessment was conducted using a method we developed based on the knowledge acquired during the Science Based Targets (SBT) for Water pilot study program in which we participated in 2021.

As a first step, we identified materiality related to water based on the characteristics of the beverage industry. Through this, we found that the most critical materiality is the water availability in watersheds where direct operation sites are located. We also found that groundwater and surface water are the ecosystem services we depend on most.

Next, we assessed the risks related to water availability in all watersheds where our sites are located to narrow down the plants that need water risk management as a priority. For assessment, in addition to the indicator of the Aqueduct mentioned earlier, we also referred to the Water Risk Filter developed by World Wide Fund for Nature (WWF). From those tools, we adopted four indicators that we can use to assess risks related to water availability. These indicators were used to determine

the water availability based on the ratio between the amount of water supplied to the watershed by precipitation and the amount of water demand in the watershed, estimated based on population statistics. Three of the four indicators assessed “current” water stress levels, such as Water Depletion in the Water Risk Filter. We defined the average score of three indices as the current water risk score. For the remaining indicator, we adopted the 2040 Water Stress of the Aqueduct, which estimates the water availability in 2040 based on climate change scenarios, etc., as “future” water risk score. All indices are scored in five risk levels and we categorized sites in watersheds with average current water risk score of “5: Extremely High” and “4: High” as sites with “Extremely high water-stressed” and sites with future water risk score of four or above as sites with “Highly water-stressed.” The foregoing is based on Aqueduct 3.0 and Water Risk Filter 6.0. Supposing the total water withdrawal by all our plants in 2023 as 100%, 2% were by sites with “Extremely high water-stressed,” and 15% were by sites with “Highly water-stressed.” In the secondary assessment, we have set 17% of the plants as priority plants to prioritize in risk reduction.

* Pilot study to verify methodology related to SBT settings for water by Science Based Targets Network*



Secondary Assessment — Assessing the level of risk reduction measures at each plant

The level of risk reduction measures progress from the perspective of water management (water withdrawal and water-saving) and coexistence with the communities at sites narrowed down in the primary assessment as we assessed priority plants. Since the condition of the water resource is different in each watershed where our sites are located, we conduct measures to reduce risks that correspond with local conditions.

a. Water Management (Water withdrawal and water-saving management)

As water is a precious resource shared with the community and ecosystem, our plants must manage water in a responsibly and appropriately. Our plants water sources fall into two main categories: municipal water and natural water (surface water and/or groundwater). Since municipal water is generally shared with various users in the community, its source area is extensive, and the local water authorities are the primary entity responsible for managing water withdrawal from the source. The plant needs to follow the water supply management policies and plans of the water authorities, including climate change adaptation plans, and promote appropriate water-saving management. On the other hand, if a plant uses natural water as a source, the primary entity responsible for managing water withdrawal is the plant, which has water intake inside the site. Therefore, the plant needs to take the initiative in water withdrawal and water-saving management to adapt to environmental changes such as climate change.

Based on the above points, we have assessed the level of measures progress to manage water withdrawal and water-saving at each plant. We evaluated the following two items:

(1)Water Withdrawal Management

The ability to prove that water withdrawal is managed properly (that water is not excessively withdrawn)

* Plants that use municipal water are not covered as the water authorities manage the water withdrawal

<Assessment Criteria>

- The ability to collect the required water withdrawal data to demonstrate that water withdrawals are not significantly impacting local river and groundwater levels.
- Required water withdrawal data is being collected.

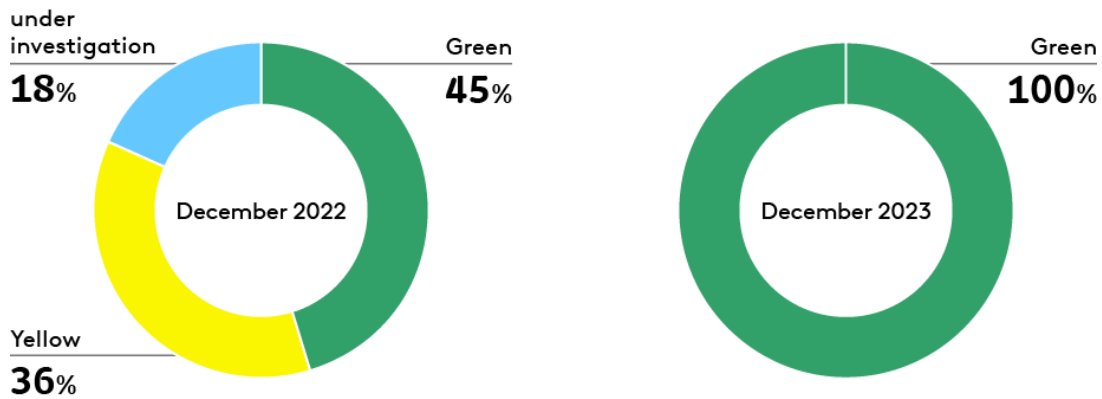
Required water withdrawal data is not collected → Red

Part of the required water withdrawal data is collected → Yellow

All required water withdrawal data is collected, and water withdrawal is appropriately managed → Green

<Assessment Results>

The following is water withdrawal management level of each plant represented as a pie chart. As a result of corrective actions taken at plants with assessed as having insufficient measures of progress, the percentage of plants whose progress level is Green has changed from 45% (December 2022) to 100% (December 2023).



(2)Water Saving Management

The ability to demonstrate that the progress of water saving activities is adequately managed

<Assessment Criteria>

- Target was established to promote efficient use of water.
- Conducting activities to achieve the target yearly.
- Target is achieved yearly.

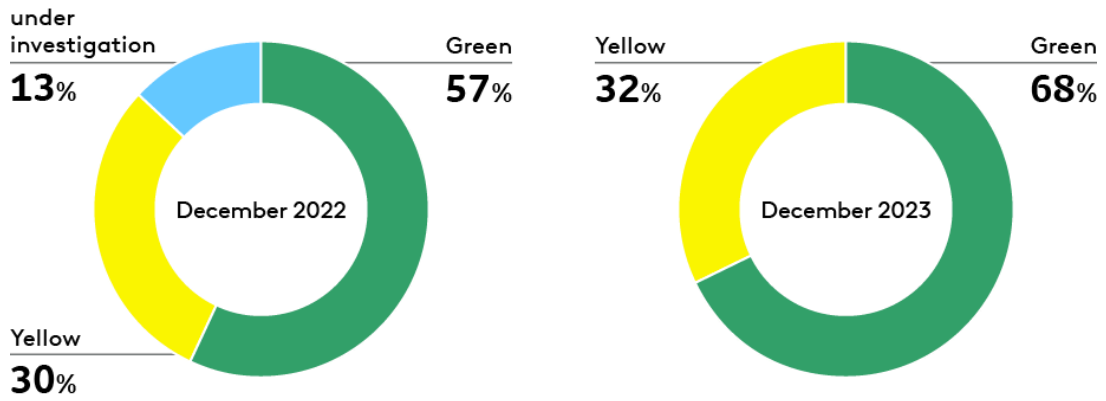
No med-term target for water intensity → Red

No yearly target for water intensity or not achieved → Yellow

The yearly target for water intensity has achieved → Green

<Assessment Results>

The following is the water-saving management level of each plant represented as a pie chart. As a result of setting a medium-term target and conducting water-saving measures to achieve the yearly target, the percentage of plants that have the water-saving management level of Green increased from 57% (December 2022) to 68% (December 2023).



We will continue to conduct measures to reduce risks using this process.

b. Coexistence with the Community

As we are users of water as a shared resource with the community, Suntory recognizes ourselves as a member of the watershed society; we aim to contribute to the development of the watershed society by conserving the water resource in each watershed to work hand-in-hand with the various stakeholders.

Precisely, following the roadmap for water source conservation efforts in the Environmental Targets toward 2030, we are identifying water-related issues in the watershed where our sites are located with local stakeholders. With the agreement of major stakeholders, we then begin conducting measures to conserve the water source area upstream of the site.

Based on the above points, we have assessed the progress of measures to co-exist with the community at each plant.

<Assessment Criteria>

- Have identified issues related to ensuring water sustainability in the watershed.
- Have worked with local stakeholders to implement measures that contribute to resolving the issues.

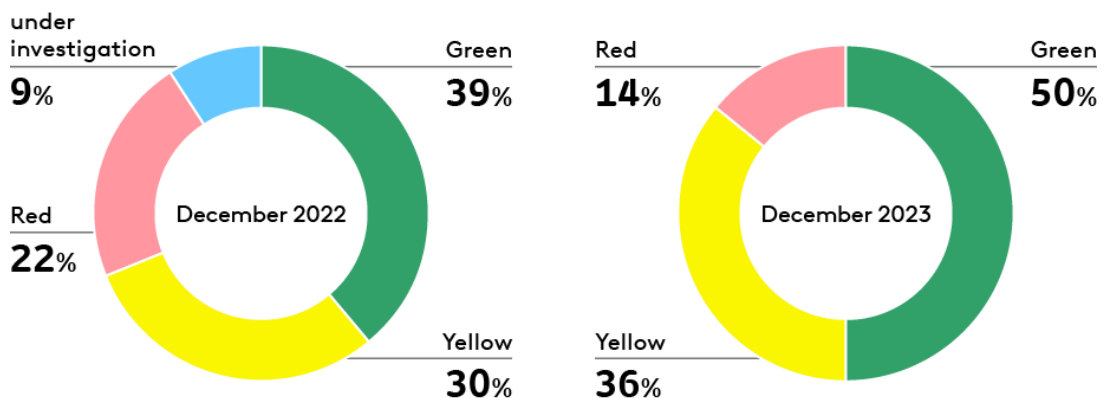
Water-related issues in the watershed are not identified → Red

Water-related issues in the watershed are identified → Yellow

Working with the community to resolve water-related issues in the watershed → Green

<Assessment Results>

The following is the progress of measures related to coexisting with the local community at each plant, represented as a pie chart. As a result of steady efforts at each plant, the proportion of plants reaching the level of Green increased from 39% (December 2022) to 50% (December 2023).



In each area, we identify water-related issues and progress water source conservation efforts with experts such as university professors. At the Behror Plant in India, we have implemented activities to recharge the aquifers, which are the water source, by utilizing reservoirs that can collect rainwater based on a local hydrological survey regarding the water balance of the entire watershed where the plant belongs. In addition, at the Toledo Plant in Spain, we collaborate with a local NGO and a university in researching the ecosystem and conducting hydrological surveys to improve the water quantity and quality as well as to increase the biodiversity of the Guajaraz reservoir in the Tagus River basin through a project called "Guardians del Taho." In November 2023, the company signed an agreement with the City Council of Layos, Toledo for reforestation of approximately two hectares of municipal forest. Activities under the agreement will include reforestation and greening of land adjacent to the right bank of the Layos River from 2023 to 2025, with the aim of increasing biodiversity in the area, as well as

fixing and fertilizing the soil to prevent erosion processes, reducing pollution diffusion, enhancing water infiltration capacity, and capturing atmospheric CO₂. We will continue to follow the roadmap toward 2030 for water source conservation efforts and steadily conduct those activities.

We will also conduct "Mizuiku" - Education Program for Nature and Water at areas we perform these activities to teach the importance of conserving the water source to the local children who will lead the next generation.

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Achieving the AWS Certification for Water Stewardship

First in Japan to earn International Certification for Water Stewardship, the Alliance for Water Stewardship (AWS)

The Suntory Group has achieved the first AWS International Certification in Japan for the Suntory Okudaisen Bunanomori Water Plant (Tottori Prefecture) in 2018, followed by the Kyushu Kumamoto Plant (Kumamoto Prefecture) in 2019, the Minami Alps Hakushu Water Plant (Yamanashi Prefecture) was the third to be certified in 2021, and the Suntory Kyushu Kumamoto Plant has received "Platinum," the highest rating within the Alliance for Water Stewardship (AWS) certification in 2023. This page introduces its significance.

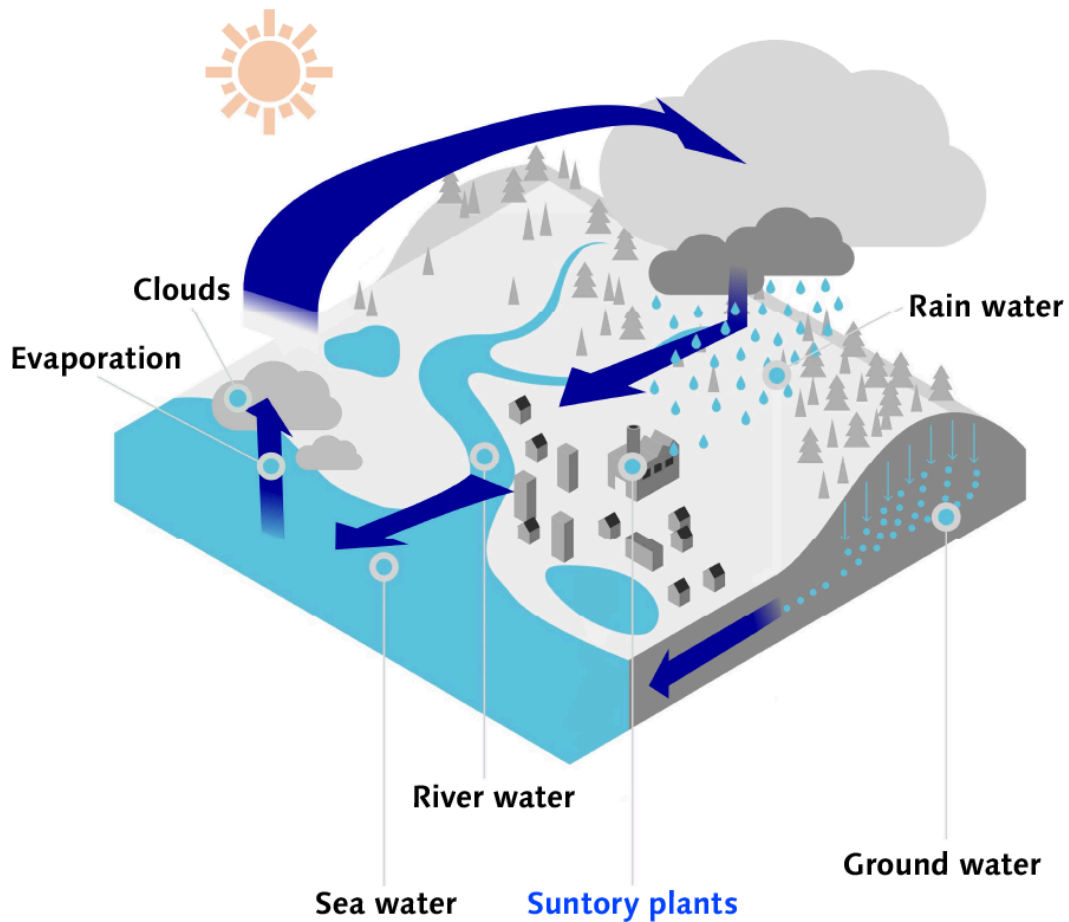


Harumichi Seta
General Manager, Sustainability Management Division
Suntory Holdings Limited

Why Suntory is promoting the AWS

Suntory has been providing new values to people through its products and services to enrich their lives, which is the core of our business. Water is the most critical resource required for us to continue offering value to the customers and the essential resource for local communities and the ecosystem. Furthermore, water is a local resource that circulates depending on the local climate and geographical conditions. Evaporated sea water becomes clouds, rain down to become part of a river or groundwater, and then join larger rivers and back to the sea. This geographical zone is called a catchment. The water we withdraw to produce our products is part of the water cycle, connected to the more significant flow of the catchment like rivers or underground aquifers. Suntory regards itself as a part of the natural water cycle and promotes water stewardship activities in catchments around its plants to preserve the healthy water cycle.

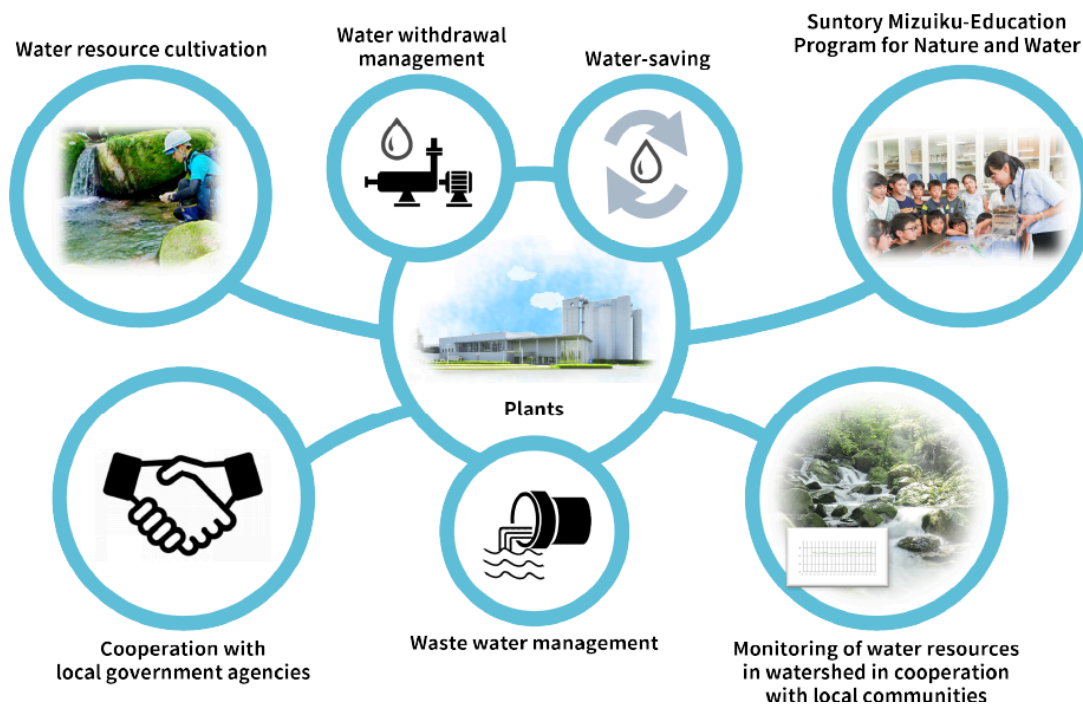
Water Cycle in a Catchment



Water stewardship indicates the responsible management and planning of water resources at the catchment level in collaboration with key stakeholders such as governmental agencies and the local community, in addition to managing water within our own plants. The initiative aims to promote the use of water that is socially and culturally equitable, environmentally sustainable, and economically beneficial throughout the entire catchment. The Suntory Group conduct initiatives to contribute to a healthy water cycle in the watersheds based on the Suntory Group's "Sustainable Water Philosophy," which has four pillars—understanding the natural water cycle, promoting environmentally conscious water use, conserving watersheds, and engaging with the local community. In addition to using water carefully through continuous water-saving activities and wastewater management at plants, the Suntory Group established the Institute for Water Science in 2003 to conduct hydrologic studies and scientifically understand the water cycle in watersheds around our plants. In the same year, the Natural Water Sanctuary Initiative began in the Kyushu Kumamoto Plant to conserve the water source, have now expanded the area to 22 locations totaling about 12,000ha in Japan and achieved the target of recharging more than twice the amount of water withdrawn by our plants in Japan. We continue to realize our vision for the next 50 and 100 years with the support of experts in various fields and residents and to create a forest that nurture groundwater for the watersheds.

Moreover, we conduct the Suntory *Mizuiku*-Education Program for Nature and Water at the Natural Water Sanctuaries and local elementary schools near Tennensui Water Plants and cooperate with local government agencies and the community to monitor the catchments' groundwater level and water resources. Furthermore, we implement forest maintenance and paddy impounding to recharge groundwater and disseminate attractiveness to vitalize local communities under signed partnership agreements with local government agencies. Suntory became the first company to earn the internationally respected standard for water stewardship in Japan, the AWS Certification, to continuously deepen such **integrated water resource management** itself along the "Sustainable Water Philosophy."

Integrated Water Resource Management



About AWS

The Alliance for Water Stewardship (AWS) is an organization globally promoting water sustainability established by NGOs, such as the World Wildlife Fund (WWF), The Nature Conservancy (TNC), and companies. The AWS Certification is an international certificate for sustainable water use targeting plants globally and aims to promote water stewardship.

For the certificate audit of Okudaisen Bunanomori Water Plant, Suntory Kyushu Kumamoto Plant, and The Minami Alps Hakushu Water Plant, the assessment body were highly evaluated our **integrated water resource management**; understanding of the water balance in the catchment around the plants, in line with the Suntory Group's "Sustainable Water Philosophy," water source conservation based on scientific data, water saving and water quality management initiatives at plants, our work with stakeholders, and appropriate disclosure.

About the Partnership Agreement

Suntory Holdings received the request from the AWS to take leadership as a company that leads the promotion of water sustainability in Japan. Endorsing its purpose, we signed a partnership agreement with AWS Asia Pacific in February 2021 followed by signing between Suntory Holdings and AWS International Secretariat in 2023. We also became the first company with AWS membership in Japan.


As the initiatives under the partnership agreement, we supervised the Japanese edition of the AWS International Standards issued in August 2021. We also introduced the certification of the AWS for Suntory Kyushu Kumamoto Plant through a case study, etc., of water source conservation activities by winter paddy impounding at the 4th Asia Pacific Summit held in April 2022, in cooperation with the Water Stewardship Asia Pacific. Suntory will advocate the importance of water resource management by the private sector. In addition, in February 2023, we established the AWS Japan Day Executive Committee with WWF Japan and held Japan's first "AWS Conference - Responsible Management of Water Resources in the Watershed for Businesses," which was attended by numerous Japanese companies, central ministries, local governments, universities, and NGOs. We will continue to lead the networking with stakeholders to promote water stewardship.

Achieving the AWS Certification by Suntory

<First in Japan>

Suntory Okudaisen Bunanomori Water Plant

Achieved the AWS Certification


- ▶ AWS Activity Report (Suntory Okudaisen Bunanomori Water Plant) 



2019

Suntory Kyushu Kumamoto Plant

Achieved the AWS Certification

- ▶ AWS Activity Report (Suntory Kyushu Kumamoto Plant) 



2021

<First in Japan>

Signed partnership agreement with AWS Asia Pacific

<First in Japan>

Member of the AWS Supporting Companies

Suntory Minami Alps Hakushu Water Plant

Achieved the AWS Certification

- ▶ AWS Activity Report (Suntory Minami Alps Hakushu Water Plant) 



2023

<First in Japan>




Suntory Kyushu Kumamoto Plant

Achieved the AWS "Platinum" Certification



We will continue to further engage in AWS activities

AWS Activity Report 2023

- ▶ AWS Activity Report (Suntory Okudaisen Bunanomori Water Plant) 
- ▶ AWS Activity Report (Suntory Kyushu Kumamoto Plant) 
- ▶ AWS Activity Report (Suntory Minami Alps Hakushu Water Plant) SUNTORY 
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Natural Water Sanctuary (Water Resource Cultivation/ Preserving Biodiversity)

Natural Water Sanctuary Initiative -- For the future of water and life

Suntory is a "water" company.

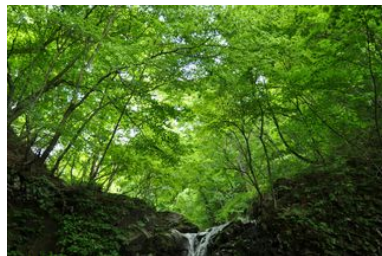
Without high quality water, we are unable to produce any beer, soft drinks, or whisky.

This is because water, especially groundwater, serves as Suntory's lifeline.

This precious groundwater is nurtured in the forest.

In order to maintain safety and reliability of groundwater as well as sustainability, we are cultivating water resources in forests which is more than twice the amount of water withdrawn by our plants. Therefore, plant water source recharge areas are specified, with a focus on our Institute for Water Science, and mid-to-long-term agreements are established with local government and forest owners to maintain forests, leading to the establishment of Natural Water Sanctuaries.

In addition to the first sanctuary location established in Aso City, Kumamoto Prefecture in 2003, there are now 26 Suntory Natural Water Sanctuaries in 16 prefectures, covering a total area of more than 12,000ha.

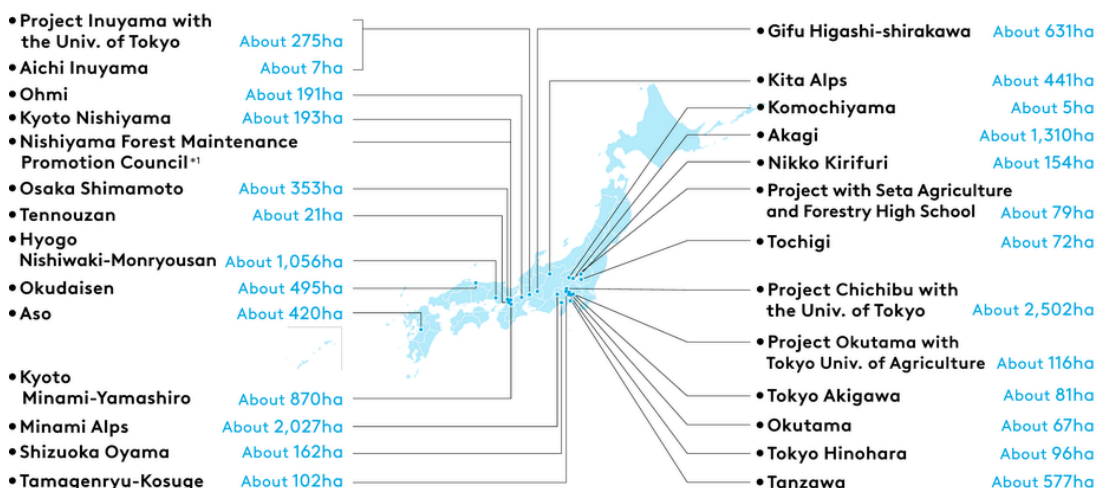


<Natural Water Sanctuary> Development Targets

- (1) Forests with a great capacity for cultivating water resources
- (2) Forests rich in biodiversity
- (3) Forests able to withstand flooding and landslides
- (4) Forests with great CO₂ absorption capabilities
- (5) Beautiful forests where visitors can encounter nature in all its abundance
(used for education programs, etc.)

Suntory Natural Water Sanctuary

26 areas nationwide Around 12,000ha (As of August 2024)



^{*1} In Nagaokakyo, Kyoto, we are a member of the Nishiyama forestry development promotion committee and we are cooperating in local forest preservation activities with people in the community. The area of the forests subject to this activity is not counted as part of our total Natural Water Sanctuary area.

Looking at Groundwater -- Comparing simulation models with results from field surveys

One of the main purposes of our Natural Water Sanctuary Initiative to improve the function of forests for recharging water resources. As a way to evaluate the results, Suntory has been trying to quantitatively evaluate the amount of groundwater recharge using a groundwater flow simulation model since 2006 and is finally approaching a level of accuracy which would allow the model to be used. Through the simulation of groundwater flow, we attempt to simulate where groundwater passes and how long it takes to reach the factory, and combine it with field survey information to deepen understanding of the underground which we normally cannot see. We would like to incorporate these results into the maintenance plan which will lead to more effective cultivation of water source recharge areas.



In addition to simulation results, it is also important to combine these results with results based on information gathered in the field during hydrologic surveys, etc. for verification.

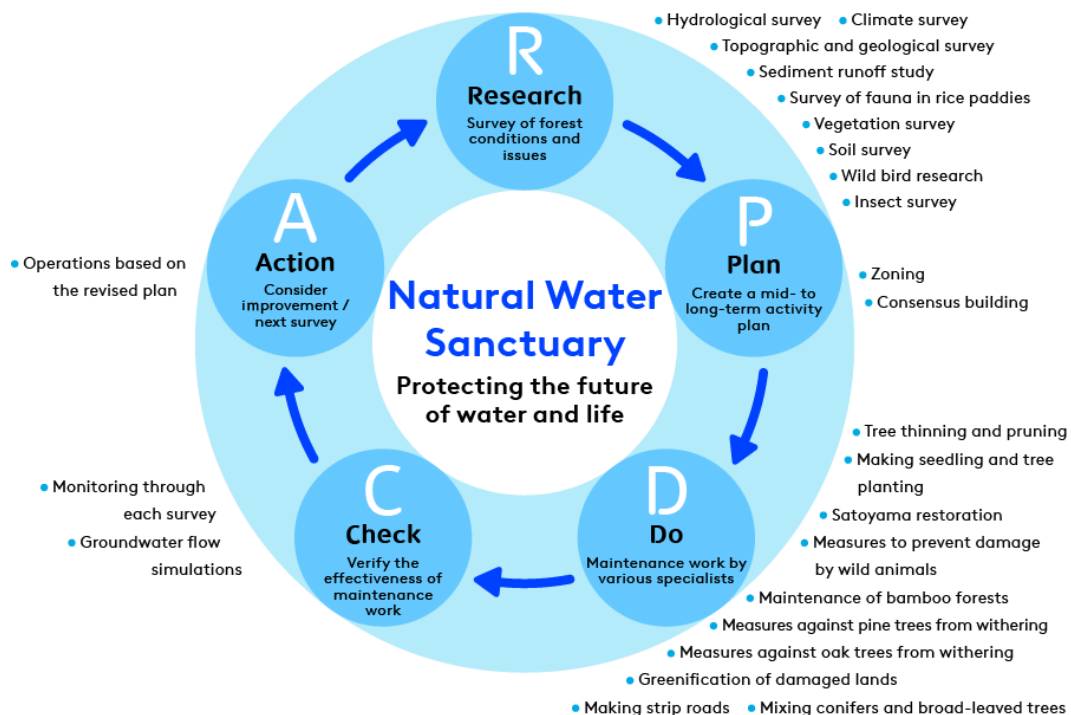
Forest Cultivation Which Looks 50 years and 100 Years Into the Future

All forests are different. So what are the special characteristics of each Natural Water Sanctuary as well as the issues that they face?

At first, we engage in activities that follow the RPDCA cycle which includes scientifically-based survey and research (Research), which serves as the foundation, creation of a vision (development plan) suited to each forest (Plan), maintenance work conducted by professionals (Do), verification of results (Check), and consideration of measures for improvement/conducting re-examination (Action).

The areas and fields of investigation and research targeted by Natural Water Sanctuary Initiative are diverse and linked organically. In doing so, cooperation based on the knowledge and skills of experts in various fields and of people in local communities are indispensable. We also use Natural Water Sanctuaries to conduct activities including human resource development support for passing on knowledge and skills (road creation, preventing damage from harmful animals, etc.), Suntory *Mizuiku* - Education Program for Nature and Water, which allows children to experience the importance of forests since they cultivate water, and The training program of First Hand Experience with Forestry by Suntory employees.

Suntory continues implementation of Natural Water Sanctuary Initiative in order to provide the blessing of nature, something that cannot be replaced, to our children, grandchildren, and future generations to come by first humbly listening to various related issues and work together with local communities to gain knowledge.



A Healthy Forest is One Full of Life -- Protecting Biodiversity

If there are many different types of plants in a forest, there will be an increase in the types of small animals that eat them, resulting in attracting animals that eat those small animals. In a healthy environment like this, a pyramid formed by various organisms is completed.

In 2022, we published the Suntory Natural Water Sanctuary Biodiversity Restoration Report. This report consists of two sections, a "Facts & Data" section that summarizes various issues facing Japanese forests and an "Actions" section which provides simple explanations and examples of activities taken to address these issues in "Suntory Natural Water Sanctuary."

[> Suntory Natural Water Sanctuary Biodiversity Restoration Report](#) 



Ecological Pyramid of a Forest:
Protecting the soil and vegetation
leads to the protection of
the entire ecosystem.



Suntory Natural Water Sanctuary
Biodiversity Restoration
Report Published

Biodiversity in a Natural Water Sanctuary from a Bird's Perspective

The plant and animal life living in the forest will change if the typical functions of the forest can be revitalized. Focusing on wild birds, which are said to serve as a barometer of a given environment, we conduct wild bird surveys by specialists in the Natural Water Sanctuaries every year based on the idea that it is possible to comprehensively grasp the changes in the entire ecosystem that supports them.

In addition, We have been promoting the project of nest building and rearing of chicks by eagles and hawks at all the Natural Water Sanctuaries in Japan with the purpose of advancing the development of a forest rich with biodiversity by taking the perspective of natural wild birds in the Natural Water Sanctuaries.

Becoming More Familiar with Natural Water Sanctuaries

Ikurinzai - Timber From Cultivated Forests Project

It is necessary to cut down trees in order to keep a forest healthy. The Suntory Group calls wood material made from Natural Water Sanctuary Initiative to nurture sustainable water and forests "Ikurinzai - Timber from cultivated forests, carefully using all the conifer and broad-leaved trees removed during tree cutting, road creation, and other activities.

Case Examples of Timber Utilization Inside and Outside of the Company



Research Location: Timber used
to create the entrance (flooring, etc.)
of Suntory World Research Center



All table tops at PRONTO mbs Tamachi shop.



Town Hall Chair in Mashiki Town, Kumamoto Prefecture

Natural Water Sanctuary Forum

Based on the goal of "Creating Forests Which Nurture Water and Life," specialists in a variety of fields who provide coaching and collaborate in Natural Water Sanctuary Initiative are invited the form which serves as an opportunity to share the newest expertise and policies for future activities. The forum was held nine times in total from 2011 to 2019.



A poster session where guests can ask lecturers questions and exchange opinions

Training Program for Employees

Many group employees and their families have volunteered for the forest stewardship program in Natural Water Sanctuaries up to 2013. Since 2014, so that each employee experiences and understands the values of our corporate philosophy "To Create Harmony with People and Nature," a total of about more than 8,000 people (including about 800 volunteers) participated in the First Hand Experience with Forestry as a training program for Suntory Group company employees, mainly current employees of Suntory Holdings Ltd. and Suntory Beverage & Food Ltd.



Employees cutting undergrowth at a Natural Water Sanctuary



Employees pruning trees at a Natural Water Sanctuary

Participate in "30by30 Alliance for Biodiversity" in Japan

The Suntory Group joined the "30by30 Alliance for Biodiversity" in Japan, which targets to halt and reverse biodiversity loss by 2030. As a coalition of governments, companies, and non-profit organizations, the "30by30 Alliance for Biodiversity" has been established in Japan to achieve the "30by30" targets to conserve or protect at least 30 percent of the country's land and ocean by 2030.

Six of Suntory Group's Natural Water Sanctuary initiative sites has been approved to be certified as Other Effective area-based Conservation Measures (OECM) to achieve the "30by30" goals.

1. Hyogo Nishiwaki-Monryusan (Nishiwaki City, Hyogo)
2. Tokyo Akigawa (Akiruno City, Tokyo)
3. Shizuoka Oyama (Oyama Town, Shizuoka)
4. Nikko Kirifuri (Nikko City, Tochigi)
5. Ohmi (Hino Town, Shiga)
6. Akagi (Shibukawa city, Maebashi city, Gunma)



Wisdom of Water (Suntory) Corporate Sponsored Research Program Organization for Interdisciplinary Research Project The University of Tokyo

Suntory Holdings Ltd. established the Wisdom of Water (Suntory) Corporate Sponsored Research Program Organization for Interdisciplinary Research Project The University of Tokyo in April 2008, and it has held this research program for five years. By cultivating more social interest in water, we are engaging in the various activities below with the aim of contributing to the education of research in academic fields while promoting solutions of water issues as well as developing a rich water environment.



"Water Map of Japan"



"Water Drill" educational contents for elementary students



The Wisdom of Water and Scientific Study of Forests and Water websites

Official Partnership for National Parks

The Suntory Group has concluded the "Official Partnership for National Parks" with the Ministry of the Environment in 2016. Through this program, we aim to deepen people's understanding of the conservation of the natural environment and to revitalize the areas where the national parks are located. We will continue to promote the wonders of the national park along with our Natural Water Sanctuary Initiative.



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Suntory Mizuiku - Education Program for Nature and Water

Suntory Group is supported by the bounty of water and nature, and we engage in environmental activities to preserve beautiful water for the future, including Natural Water Sanctuary initiatives to protect forests where water is nurtured.

One of these activities is Suntory “Mizuiku”^{*} — education program for nature and water, a next-generation environmental education program launched in 2004.

Mizuiku is a program unique to Suntory that helps children experience the wonder of nature, become aware of the importance of water and the forests nurturing it, and consider what they can do to pass on water to future generations.

The program is deployed in Japan and, in collaboration with local NGOs and other organizations, in seven other countries. As of December 31, 2023, the cumulative number of participants exceeded 580,000.

^{*} Mizuiku is a registered trademark of Suntory Holdings Limited.

Suntory Mizuiku Expanding in 8 Countries



Japan

Mizuiku education in Japan is centered on two programs: the Outdoor School of Forest and Water, offering shared hands-on nature experiences for parents and children, and the Teaching Program at Schools, a program for elementary schools.

Suntory Mizuiku — education program for nature and water received the Ministry of Education, Culture, Sports, Science and Technology’s Jury Award for Excellence for Companies Promoting Youth Experiential Activities in fiscal 2023.

^{*} Sponsor: Ministry of the Environment, Ministry of Education, Culture, Sports, Science and Technology, etc.

Outdoor School of Forest and Water

This hands-on nature program, geared to elementary school students from grades 3 through 6 and their parents or guardians, is held in the home regions of (Mineral Water) Suntory Tennensui. Participants experience for themselves the importance of water and of the forests that produce it amid the great outdoors at Hakushu (Yamanashi prefecture), Kita Alps (Nagano prefecture), Okudaisen (Tottori prefecture), and Aso (Kumamoto prefecture). We also operate a remote school that enables participants to experience nature from home. The Outdoor School of Forest and Water staff conduct the program together with expert instructors who play active roles locally in environmental education.



Outdoor School of Forest and Water

Teaching Program at Schools

We offer study programs for students in grades 4 and 5 in elementary schools together with their teachers. We believe we can make a difference by teaching the cycle and importance of nature through videos and experiments, so that together we can pass down water to future generations. We also conduct online classes, and elementary schools all over Japan can participate.



Teaching Program at Schools

[Suntory Mizuiku — Education Program for Nature and Water website](#)

Vietnam

Since March 2015, we have offered a Mizuiku program in Vietnam.

In cooperation with international NGOs, we have developed original teaching materials, and since 2017 we have been working with the Young Pioneer Organization (CCYPO) of the Central Committee of the Communist Party of Vietnam. Moreover, since 2022, we have been collaborating with the Ministry of Education and Training to provide classes for elementary school students in grades 3 and 4 on the importance of water, water sanitation, and water source conservation. In addition, we are contributing to the installation of toilets and washrooms at elementary schools to improve sanitary environment of children.

This activity was created to contribute to Target 6.B of Sustainable Development Goal 6 “Ensure access to water and sanitation for all.”

In December 2022, Suntory PepsiCo Vietnam Beverage concluded a comprehensive collaboration agreement with the Ministry of Education and Training to deploy Mizuiku programs across Vietnam over a three-year period.



Suntory Mizuiku — education program for nature and water in Vietnam

Thailand

We have offered a Mizuiku program in Thailand since July 2019.

With cooperation from local NGOs, we are developing water awareness projects in elementary schools in the capital of Bangkok, as well as in Rayong and Saraburi provinces. We are also engaged in erosion prevention projects in the northern province of Chiang Mai and the southern province of Nakhon Nayok. By slowing stream currents, installing small weirs to support permeation of underground water, and planting trees to prevent soil from flowing into streams, we can prevent sediment-related erosion, and we plan to continue these efforts.



Suntory Mizuiku — education program for nature and water in Thailand

France

In July 2020, Suntory Beverage & Food France established a workshop-based water education program for elementary school students in partnership with Grand Parc Miribel Jonage, a nature park located near its Meyzieu Plant. The program includes content on the role forests have in cultivating water, experiments to show how rainwater becomes underground water, and more.

In 2017, Suntory Beverage & Food France initiated a 20-year water-conservancy partnership with Grand Parc Miribel Jonage. Together with the local community, we are promoting conservation activities in forests extending into the park, including protecting and nurturing the water and natural environment in areas near factories. We are also conducting Mizuiku educational activities in line with this partnership.



Workshop-based water education program in France

China

Since September 2021, with the cooperation of the Shanghai Volunteer Foundation, a local public interest group, we have been conducting a Mizuiku program for grade 3 and 4 elementary school students in Shanghai. This program teaches elementary school students the basic knowledge about water and the habit of saving water, through experiments and videos about how nature works with contents tailored to the local situation such as by questioning “where does city water come from and end up in?”



Suntory Mizuiku — education program for nature and water in China

Spain

Since May 2022, we have been conducting a Mizuiku program in Spain. With support from local environmental experts, we are offering an educational program for elementary school students in the province of Toledo. The field activities are carried out in the natural environment of the Guajaraz reservoir in the vicinity of Toledo, where the main factory of Suntory Beverage & Food Spain is based and source their water from. The program teaches children the importance of water, such as by deepening their understanding of the natural water cycle and how it relates to their daily lives, how to use water responsibly, and the relationship between water and biodiversity, as well as provides training and ideas on how to preserve and improve the quality and quantity of water in the future.



Suntory Mizuiku - education program for nature and water in Spain

United Kingdom

In May 2023, we launched a Mizuiku program in the United Kingdom. In collaboration with a charitable organization that conserves the environment of local rivers, we are developing a nature experience program for children up to elementary school age and their families in the Severn River basin, the water source for the Coleford Factory. The program teaches students about the importance of water and water conservation, including basic knowledge about water and the water cycle, and the relationship between water and biodiversity.



Suntory Mizuiku - education program for nature and water in the United Kingdom

New Zealand

In May 2023, we launched a Mizuiku program in New Zealand. In collaboration with an NPO that works to preserve local river environments, we are developing on-site classes for elementary school students. The program conveys to students the mechanisms of nature and the importance of water, and covers basic water knowledge, including the water cycle, as well as ocean pollution prevention, including upstream river cleanup.



Suntory Mizuiku - education program for nature and water in New Zealand

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Climate Action

▼ Policies and Our Approach

▼ Promoting Structure

▼ Targets and Progress

▼ Our Initiatives

Policies and Our Approach

An ongoing stable supply of products will be difficult if the effects of global warming more drastically change the climate patterns as well as greatly impact water resources, which are crucial for beverage manufacturers. Suntory Group recognizes global warming as one of the major challenges in business continuity due to the potential risk for great increases in production costs caused by a depletion of resources. Therefore, we need to unify as a Group to prevent global warming with the goal of reducing the environmental impact throughout the entire value chain by joining the environmental efforts of governments and local municipalities and by supporting public policy and regulations aimed to mitigate global warming. In May 2019, Suntory Group expressed its support for the Task Force on Climate-related Financial Disclosures (TCFD) recommendations established by the Financial Stability Board (FSB).

Promoting Structure

Global Sustainability Committee

To promote sustainability management, the Global Sustainability Committee (GSC) acts as an advisory committee to the Board of Directors. The Group's sustainability strategies and the progress on priority themes (water, climate change, containers and packaging, raw ingredients, health, human rights and enriching life) are discussed in the GSC under the lead of the Chief Sustainability Officer

▶ [For more information on the Global Sustainability Committee, see Environmental Management.](#)

Targets and Progress

Environmental Vision toward 2050



Climate Change Measures

- Aim for net **zero** greenhouse gas emissions across the whole value chain by 2050

Continue to promote energy conservation, proactively implement renewable energy solutions, utilize next-generation infrastructure options and work together with stakeholders across the value chain in order to contribute to realizing a decarbonized society



Environmental Targets toward 2030

2023 Progress

Greenhouse gas (GHG)



- Reduce GHG emissions from our direct operations by **50%***

- **24%** reduction compared to 2019



- Reduce GHG emissions across our entire value chain by **30%***

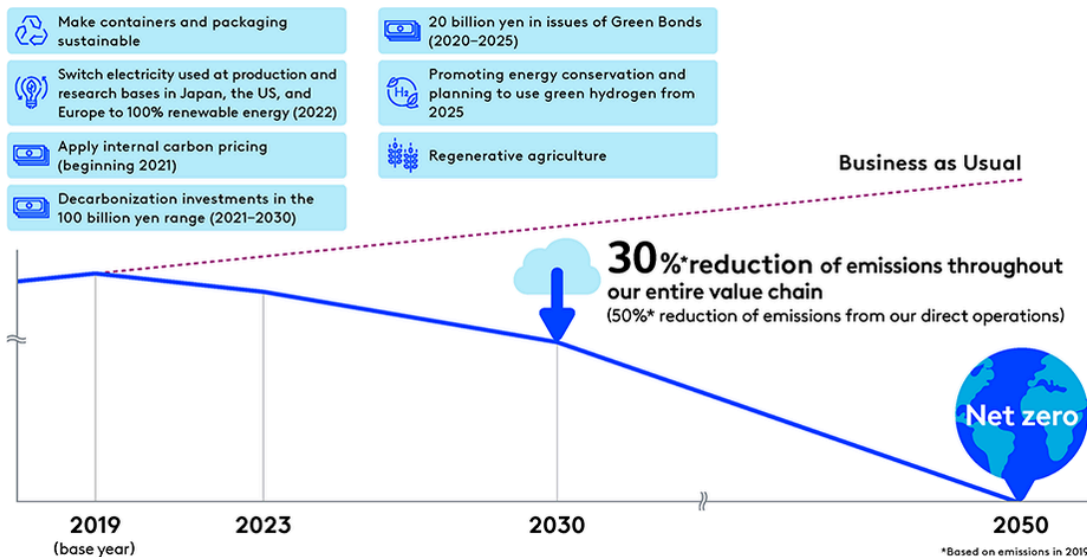
- **7.8%** reduction compared to 2019

*1 Based on emissions in 2019.

* The greenhouse gas (GHG) emission reduction target set in Environmental Targets toward 2030 has been certified as a 1.5°C Target by the SBT Initiative.

➤ For more information on GHG emissions achievements, see the List of achievements data.

Road Map to Net Zero



*Based on emissions in 2019

Our Initiatives

Decarbonization Investments to Achieve Environmental Targets toward 2030

Suntory Group plans to invest 100 billion yen from 2021 to 2030 to promote decarbonization. These investments are expected to reduce GHG emissions by approximately one million tons in 2030.

Initiatives to Reduce Own-site Emissions (Scope 1 and 2)

Internal Carbon Pricing

Suntory Group introduced internal carbon pricing in 2021. Internal carbon pricing is widely used in making management decisions, mainly capital investment decisions contributing to climate change countermeasures.

<ICP Summary of Suntory Group>

Price	8,000 yen per ton
Approach	Shadow price
Scope	Internal Suntory Group
Prerequisites for price calculation	Calculated based on forecasts by the IEA and other international organizations, benchmarks used by other companies in the industry and those promoting advanced environmental initiatives, as well as evaluation of past internal decision-making.

Initiatives in Production and R&D

Use of Renewable Energy

Suntory Group uses 100% renewable energy for electric power purchased at all of its alcohol and non-alcohol manufacturing sites and R&D facilities in Japan, the Americas, and Europe. This policy contributes to an annual reduction of approximately 230,000 tons* of GHG emissions.

In addition to procured power, we are installing solar panels and introducing biomass boilers as required to generate renewable energy on site.

* Based on power procured, 2023



Suntory Minami Alps Hakushu Water Plant



Suntory Kita Alps Shinano-no-Mori Water Plant



Carcaixent Plant (Spain)



Biomass boiler (Chita Distillery)



Biomass boiler (Suntory Kita Alps Shinano-no-Mori Water Plant)

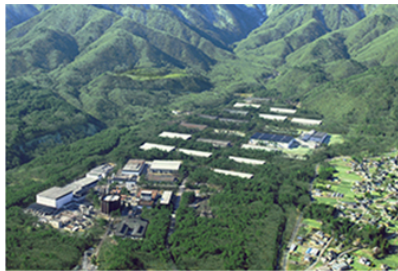


Fred B. Noe Craft Distillery (Suntory Global Spirits, North America)

Installing Japan's largest 16-megawatt P2G (Power to Gas) system for in-house green hydrogen production

In September 2022, Suntory Holdings Ltd. signed a basic agreement with Yamanashi Prefecture to realize an environmentally harmonious and sustainable society. Suntory aims to install a 16-megawatt P2G system, Japan's largest, at the Suntory Minami Alps Hakushu Water Plant and Suntory Hakushu Distillery by 2025. The system will utilize electricity derived from solar power and other renewable energy sources, making it capable of producing "green hydrogen" without emitting CO2 during the hydrogen production process.

The green hydrogen produced will not only be used as fuel for heat energy at the company's Hakushu facilities but are also planned to be utilized in the surrounding communities.



Suntory Minami Alps Hakushu Water Plant and Suntory Hakushu Distillery



Installing P2G system

Promoting Energy Conservation

Suntory Group is engaged in a wide range of initiatives to conserve energy. Suntory Spirits Ltd. Gunma Brewery is actively making use of natural energy, while the Suntory World Research Center has introduced equipment to reduce its environmental impact. In addition, there are sites like Iwanohara Vineyard and Suntory Okunodaisen Bunanomori Water Plant, which take advantage of their locations in areas with heavy snowfall by using "snow rooms" that store winter snow throughout the year.



Suntory Spirits Ltd. Gunma Brewery



Suntory World Research Center



Snow room at Okudaisen Bunanomori Water Plant of Suntory Products Ltd.

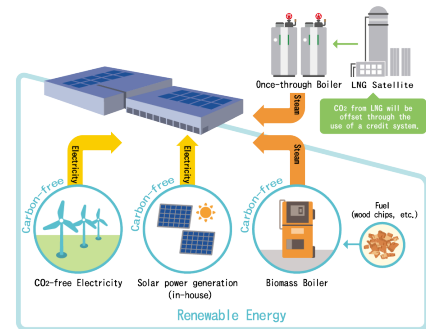
Suntory Group's first net-zero CO₂ Emissions plant in Japan

The Suntory Kita Alps Shinano-no-Mori Water Plant (Omachi City, Nagano Prefecture) which started operation in May 2021 as a fourth water source for Suntory Tennensui Mineral Water, become the Suntory Group's first net-zero CO₂ emissions plant in Japan through adoption of solar power generation facility and boilers which use biomass fuel, electric power procurement derived from renewable energy as well as offsetting.

In 2023, the Suntory Kita Alps Shinano-no-Mori Water Plant became the first food and beverage factory in Japan to receive PAS2060^{*1} carbon-neutral certification from the British Standards Institution (BSI). In 2024, the factory was recertified.

^{*1} Abbreviation for Publicly Available Specification 2060, an international standard issued by BSI to quantify, reduce, and carbon offset greenhouse gas (GHG) emissions from products/services/activities, thereby declaring them neutral (i.e., emissions of GHGs are effectively zero).

[PAS 2060 Qualifying Explanatory Statement\(Japanese Only\)](#) 



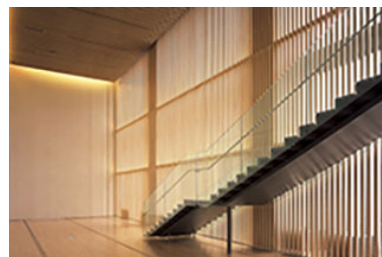
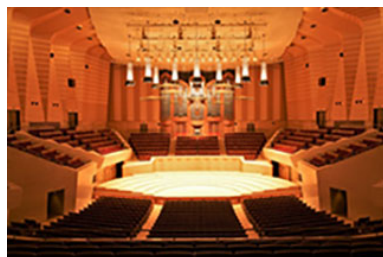
Initiatives in Offices and Other Facilities

Actions in the Offices

Our major offices purchase 100% renewable electricity. In addition, various initiatives are carried out by all employees daily with higher awareness on saving energy in each office. The Odaiba Office in Tokyo installs use of reused water, automatic lighting control system, and human detection sensors for lights in toilets and escalators. Reduction of greenhouse gas(GHG) emission are being promoted in each office by implementing cool biz and warm biz and actively using web conference system.

Suntory Hall and Suntory Museum of Art Purchase 100% Renewable Electricity

From April 2022, Suntory Group purchases 100% renewable electricity for all 30 directly owned manufacturing sites and R&D facilities in Japan. Suntory Hall and Suntory Museum of Art have also switched to purchasing 100% of their electricity from renewable energy sources. Through these efforts, the two facilities have been able to reduce CO₂ emissions by approximately 900 tons per year compared to the past.



Initiatives to Reduce Emissions from Raw Ingredient Procurement and Logistics, etc. (Scope 3)

Supplier Engagement

Data Gathering, Goal Setting, and Sharing Best Practices

Suntory Group holds annual policy briefings for its principal business partners, including raw material suppliers, contract manufacturers, and logistics partners, to promote awareness of and support for sustainability initiatives. In addition, through presentations to explain Group initiatives and the use of surveys, we monitor the status of CO₂ emission reduction targets set by major suppliers, and considering future procurement policy initiatives.

Raw Ingredient-related Initiatives

The bounties of nature, in the form of agricultural crops and other raw ingredients, are essential inputs for Suntory Group products. As such, we are collaborating with business partners in the supply chain to implement a broad range of climate change-related initiatives. In particular, it is estimated that GHG emissions from agriculture and forestry account for about a quarter of all such emissions.* Suntory Group also estimates that agriculture-derived GHG emissions account for about 20% of GHG emissions in its value chain, and is working to effect a shift to sustainable agriculture.

※ IPCC 5th Report WG3 SPM

Barley

To reduce greenhouse gas (GHG) emissions originating in raw ingredients, Suntory Group is collaborating with malt supplier Muntons, agricultural consulting firm Future Food Solutions, and barley farmers, and implementing a range of initiatives in a project to procure barley for malting produced through regenerative agriculture*¹ in the United Kingdom.

Through agricultural approaches such as the use of cover crops*² and no-till farming, the project hopes to reduce GHG emissions from agriculture by 50% within five years while regenerating soil biodiversity, enhancing soil fertility, reducing chemical fertilizer and pesticide use, and using water more effectively.

*¹ Agricultural methods that focus on enhancing soil fertility by regenerating its ecosystem to make crop production sustainable

*² Cover crops that can enhance soil fertility by supplying organic matter to the soil, preventing erosion, etc.



Green Tea

To promote sustainable tea leaf procurement, the raw material for green tea beverages, Suntory Group has launched a long-term initiative in collaboration with tea farming areas.

By working with the Kuma Regional Agricultural Cooperative (JA Kuma) to introduce environmentally friendly tea farming processes, we have reduced GHG emissions by over 30%* compared to conventional processes.

In conjunction with the pursuit of high-quality tea production, we hope to go on contributing to stable succession and training of successors in tea farming regions.

* GHG emitted per weight unit during the production of green tea material, from raw leaves to rough tea



Blackcurrant

Suntory Beverage & Food Great Britain and Ireland has been conducting research on new, climate change-resistant species of blackcurrant. In July 2020, after years of research in collaboration with the James Hutton Institute, an agricultural research facility, we harvested a new climate change-resistant species, named Ben Lawers.



Wine Grapes

In collaboration with University of Yamanashi, Suntory Tominooka Winery has introduced a new, secondary-shoot cultivation technique for wine grapes. The daily temperature range normally begins to expand as nighttime temperatures start to drop around mid-July, causing the sugar content of grapes to increase as they ripen. However, climate warming has recently slowed the ripening process. In secondary-shoot cultivation, the tips of shoots that sprout in April are trimmed, and the resulting side shoots are nurtured. This shifts the start of ripening from mid-July to early September, when temperatures start to drop, and grapes are harvested in mid-November.

In other vineyard initiatives, we are promoting formation of soil rich in biodiversity by minimizing the use of pesticides and fertilizer. This boosts the population of microorganisms and beneficial insects in the soil and decreases the population of pests. We also store carbon by carbonizing pruned branches and mixing them into the soil.



[▶ For more information on our raw material initiatives, see Supply Chain Management](#)

Container- and Packaging-related Initiatives

Suntory Group aims to eliminate the use of fossil-derived materials in PET bottles by switching to 100% recycled or plant-derived materials for all PET bottles used by the Group by 2030. We are promoting initiatives based on the Group's unique 2R+B (Reduce, Recycle + Bio) strategy, which aims to reduce the amount of plastic used in bottles by making them lighter (Reduce), recycling them as a resource (Recycle), and utilizing biomass-derived resources (Bio). The development of weight reduction and recycling technologies has produced a reduction in CO₂ emissions.

In particular, "bottle-to-bottle" horizontal recycling^{*1} allows PET bottles to be recycled in Japan multiple times as a resource, reducing CO₂ emissions by approximately 60%^{*2} relative to manufacturing PET bottles from new fossil-based raw materials. As of May 31, 2024, our use of new fossil-based raw materials was 300,000 tons less than it would have been had we not utilized horizontal recycling.

*1 Recycling used PET bottles into new PET bottles

*2 With respect to the process from used PET bottles to preform manufacturing

[▶ For more information on our container- and packaging-related initiatives, see Packaging & Resource Efficiency](#)

Initiatives in Logistics

Suntory Group is working to reduce the environmental impact of its logistics operations, including transport and delivery operations and warehouse operations. We are working to shorten transport and delivery distances traveled from plants to customers by promoting local production for local consumption, maximizing utilization of large vehicle load capacity, and switching to next-generation fuels and transport modes with lower GHG emission levels.

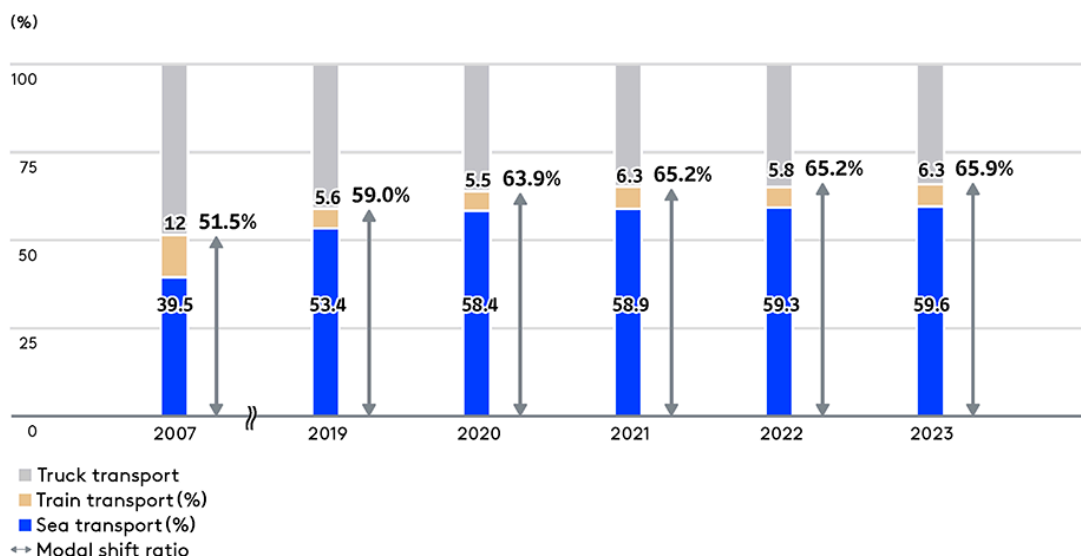
In warehouse operations, we are working to shorten operating hours and reduce power consumption.

During 2023, sales (KL) expanded by 4% over the previous year. GHG emissions rose 2% to 154,000 CO₂-tons^{*} while the basic unit was 22.5 CO₂-ton/thousand KL sold.

Reducing GHG Emissions with a Modal Transport Shift

1. Enhancing the modal shift rate

We are promoting a modal shift to rail and ocean transport, which emits less GHG than trucks. The 2023 modal shift rate rose over the previous year.



2.Enhancing usage of fuels with less GHG emissions

To encourage our transportation partners to use next-generation fuels that emit less GHGs than conventional fuels, we identified issues for expanded use in the future and are engaged in discussions for solving those issues. The next-generation fuels were introduced in 2022, and we used them at roughly the same levels in 2023.

Collaborative Efforts with Logistics Affiliates

136 of our logistics affiliates (as of 2023) have acquired certifications, such as the ISO14001 and Eco Stage as well as Green Management advocated by the Ministry of Land, Infrastructure, Transport and Tourism, with the aim to further reduce the environmental impact. In addition, in response to amendments to the Rationalization in Energy Use Law, Suntory Group collected GHG emissions data such as the monthly distance driven by vehicles, the amount of fuel consumed, and the useful load of logistics affiliates.

Collaborative Efforts with Other Companies

We are partnering with other companies for reducing environmental impact in logistics through joint distribution and joint use of containers.

Coordination	Description	Starting from	Results
NISSIN FOODS HOLDINGS CO., LTD.	Joint transport in the Obihiro area of Hokkaido	June 2017	Approximate annual GHG reduction of 50 tons (Total figures for both companies)
Four major beer companies in Japan	Joint distribution in some areas of Hokkaido (Kushiro/Nemuro)	September 2017	Reduction of approximately 330 tons of GHG emissions per year (*Figures apply to all four beer companies)
Four major beer companies in Japan	Joint distribution for transport between Kansai/Chugoku area and Kyushu area	April 2018	Reduction of approximately 1,500 tons of GHG emissions per year (*Figures apply to all four beer companies)
Four major beer companies in Japan	Joint collection of beer pallets	November 2018	Reduction of approximately 4778 tons of GHG emissions per year (*Figures apply to all four beer companies)
Unicharm Corporation	Joint use of railway containers between Shizuoka area and Fukuoka area	February 2021	Reduction of approximately 2 tons of GHG emissions per year

			(*Total figures for both companies)
Daio Logistics Co., Ltd.	Joint Kanto-Kansai transport	August 2022	Approximate annual GHG reduction of 115 tons (*Two-company total)
Daio Logistics Co., Ltd.	Parties share one-way rail containers	August 2022	Approximate annual GHG reduction of 100 tons
Daio Logistics Co., Ltd.	Railroad Container Round-trip Utilization between Kanto and Shikoku	June 2023	Approximate annual GHG reduction of 31 tons
Japan Freight Liner Company	Utilization of ocean 40ft containers for return trips	July 2023	Approximate annual GHG reduction of 89 tons

Reducing Environmental Impact of Sales Vehicles and Vehicle Accidents

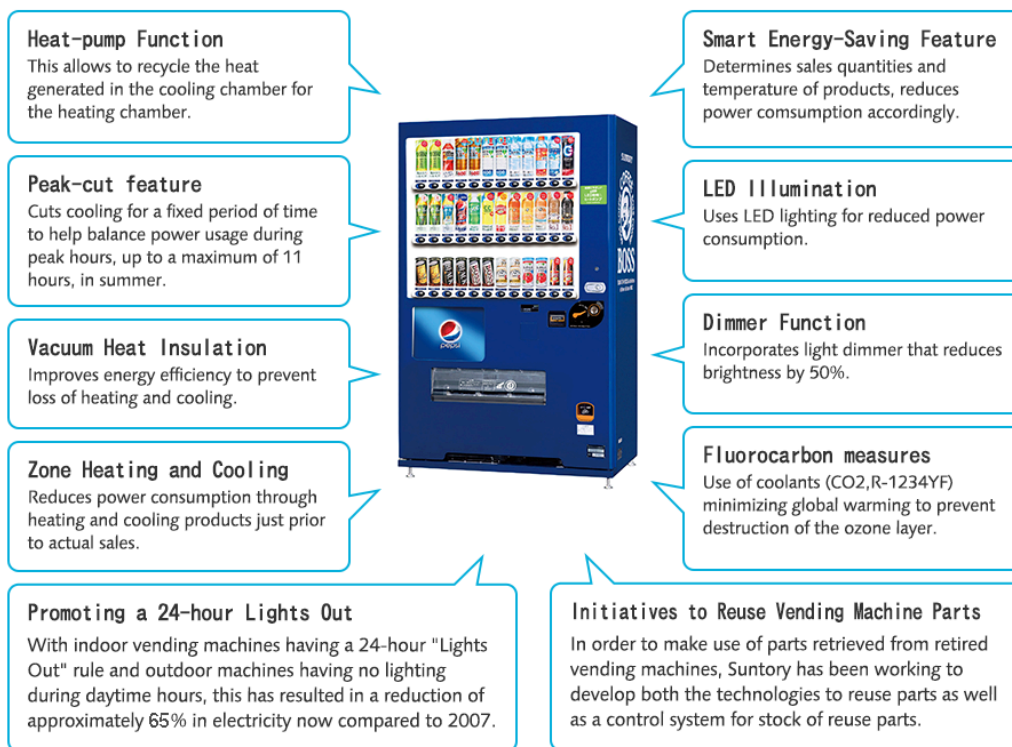
We are proactively saving energy by replacing most of the vehicles used in our sales activities with hybrid vehicles.

In addition, by introducing vehicle operation management systems and drive recorders that can acquire driving data such as driving distance, driving behavior, and fuel efficiency in sales vehicles. We promote safe driving and eco-driving by feeding back the result of the analysis of collected data.

Energy Conservation in Vending Machines

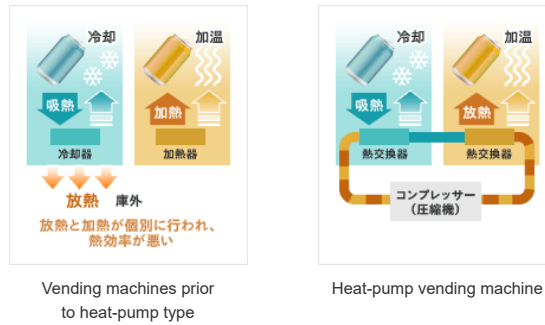
We are implementing various initiatives to save energy in vending machines in Japan as one of priority initiatives to reduce GHG in the entire value chain.

Key Features of Suntory Vending Machines



What is a heat-pump vending machine?

A heat-pump vending machine in Japan is a vending machine with a built in system to collect heat generated by the cooling chamber for the heating chamber. These vending machines largely contribute to energy saving through function to effectively use heat inside the vending machine and latest machine can even exchange heat with the atmosphere.



Ensuring Reasonable Waste Disposal of Vending Machines

We are leading the industry in building a Vending Machine Waste Disposal System that collects and recycles vending machines to throw away, which we have expanded nationally since January 1997. We are strictly managing disposal from the initial selection of vending machines to discard to the final disposal in compliance with the revisions to the Wastes Disposal and Public Cleansing Act in April 2001. We are properly processing broken machines by understanding the amount of machines to collect based on the Act for Rationalized Use and Proper Management of Fluorocarbons even in regards to the fluorocarbons that are used as a refrigerant in vending machines.

Strategies for Adapting to Global Warming

To better adapt to climate change, we are expanding our portfolio of heat stroke-prevention beverages* and conducting educational initiatives relating to heat stroke at supermarkets and other in-store environments, as well as heat stroke prevention classes for elementary school students.

* The Ministry of Health, Labour and Welfare's recommended salt equivalent for beverages to prevent heat stroke is 0.1 g to 0.2 g/100 ml.

Participation in Initiatives

SBT Initiative Certification

Suntory Group has signed the "Business Ambition for 1.5°C," a campaign led by the Science Based Targets initiative^{*1} in partnership with the UN Global Compact and the We Mean Business^{*2} coalition to hold global temperature increases to 1.5°C above pre-industrial levels.

Suntory Group has had its 2030 emissions reduction targets approved by the Science Based Targets initiative as consistent with levels required to meet the goals of the Paris Agreement.



*1 The SBTi is a partnership between CDP, the United Nations Global Compact, World Resources Institute (WRI) and the World Wildlife Fund for Nature (WWF). It drives ambitious climate action in the private sector by enabling companies to set science-based emissions reduction targets.

*2 We Mean Business is a global nonprofit coalition working with the world's most influential businesses to take action on climate change. Together they catalyze business leadership to drive policy ambition and accelerate the transition to a zero-carbon economy.



Endorsement of Task Force on Climate-related Financial Disclosures (TCFD) Recommendations

Suntory Group has declared its Endorsement of Task Force on Climate-related Financial Disclosures (TCFD) recommendation, which was established by the Financial Stability Board (FSB).



In addition, we conducted scenario analysis for climate change according to the recommendations of the TCFD and learned about the possibility that climate change will have a significant impact on the crops that are Important ingredient to Suntory Group. From here on, we will do further advance scenario analysis and expand disclosure of information related to the risks and opportunities that climate change poses to business.

[▶ For more information, see Disclosures Based on Task Force on Climate-related Financial Disclosures \(TCFD\) Recommendations.](#)

Disclosure Based on TCFD

In order to sustain business and continue to create value, Suntory Group believe it is necessary to identify risks due to climate change as well as their potential impact on business and respond appropriately.



In May 2019, Suntory Group declared its support for the Task Force on Climate-related Financial Disclosures (TCFD) recommendations established by the Financial Stability Board (FSB), and makes disclosures based on the recommendations annually.

Starting in 2022, in addition to assessing and identifying the risks and opportunities that the problem of climate change presents to society and corporations, we started to estimate the monetary impacts on our business. Going forward, we will aim to enhance our resilience to these impacts by incorporating adaptive measures into our strategies to address risks and opportunities as they become evident. We will also continue to expand disclosure of related information.

1. Governance

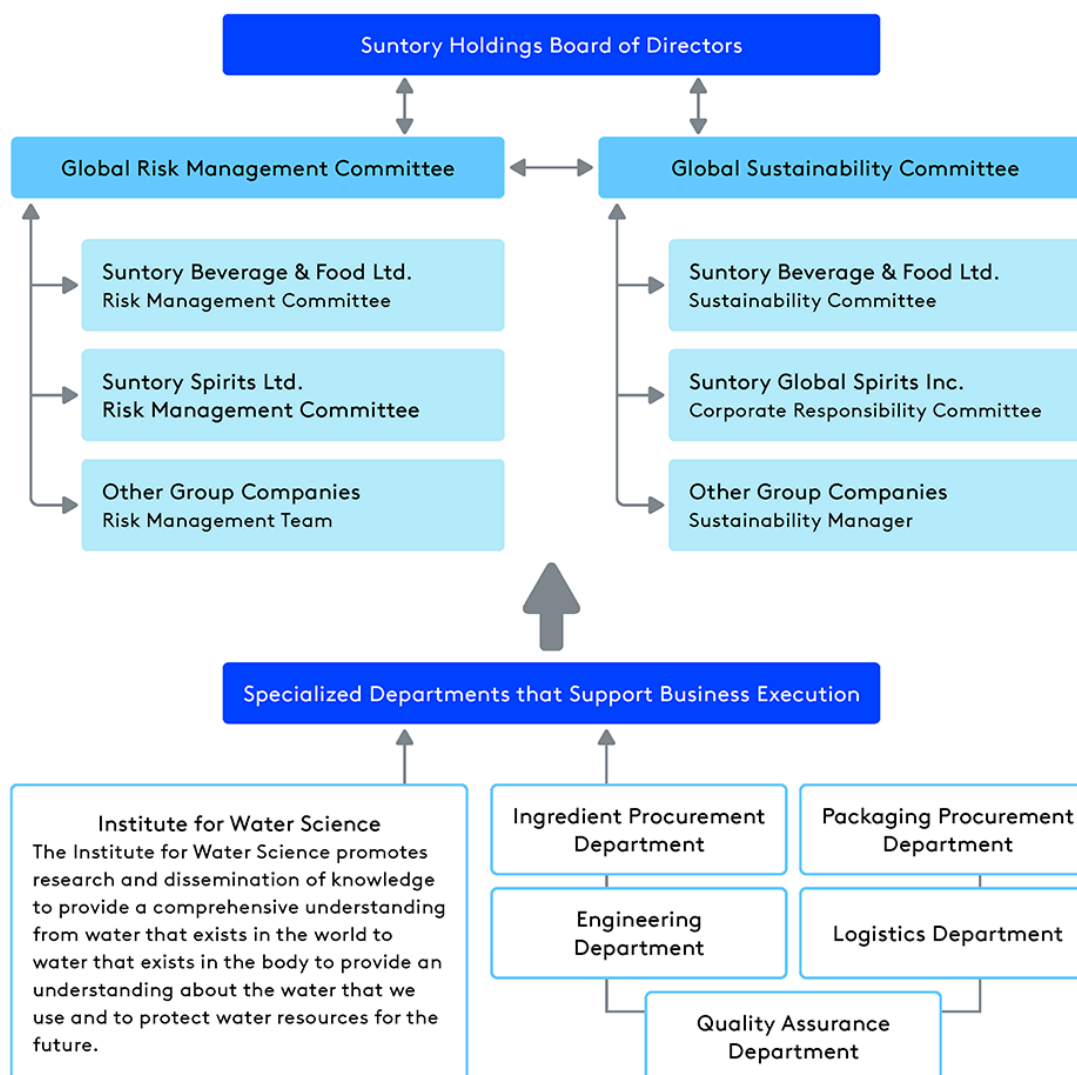
The Global Risk Management Committee (GRMC) strengthens risk management throughout the entire Group. We have established a risk management committee and risk management team based on this GRMC (e.g. installation of a Risk Management Committee at Suntory Spirits Ltd. and Suntory Beverage & Foods Ltd., etc., the Global Risk & Compliance Committee at Suntory Global Spirits Inc., and the Risk Management Team at other Group companies). Meeting four times a year, the GRMC identifies the entire Group's risks, executes countermeasures, and engages in activities related to the establishment of crisis management systems. Climate related risks, one of the most important risk categories, are discussed by the GRMC and the responses to those risks are then monitored.

The Global Sustainability Committee (GSC) discusses medium- to long-term strategies relating to the seven themes defined by the Sustainability Vision, including climate action. In addition, we have established committees at each business in order to hold discussions about more specific strategies and initiatives (e.g., the Sustainability Committee was established at Suntory Beverage & Foods Ltd. and the Corporate Responsibility Committee was established at Suntory Global Spirits).

The GRMC and GSC are in constant cooperation, and important matters to be discussed are further deliberated and resolved by the Board of Directors. Progress in implementing strategies related to climate change, and business risks and growth opportunities are reported to the Board of Directors on a quarterly basis. In addition, the Board of Directors provides opportunities to receive advice on climate change and sustainability management, such as by regularly holding study sessions led by invited external experts.

Climate related KPIs are set in the management strategy meeting. The CEO is responsible for climate related issues and the Chief Sustainability Officer is responsible for assessment of climate-related risks and opportunities as well as their management. Business performance targets that determine officer remunerations include sustainability targets.

Organizational Chart



2. Strategy

Suntry Group assesses climate change related issue based on their importance. For risks that are expected to have a large impact on business, we have set medium- to long-term targets and are proceeding with initiatives.

As the approach to identifying risks and their assessment, we create an evaluation of the identified risks based on the two axes of "Risk Exposure" and "Degree of Response." In particular, we categorize major Group-wide risks as Tier 1 through Tier 3, with Tier 1 being most important risk and Tier 2 important risk. "Risk Exposure" is calculated by probability of occurrence (probability) x magnitude of impact (impact), and "Degree of Response" is calculated by the degree of preparation for countermeasures. As a result of the evaluation, climate-related risks are positioned as one of the most important risk types.

With consumers, investors, and other stakeholders increasing interest in GHG emissions by corporations, we recognize that risks and opportunities related to climate change may greatly affect our business strategy. We conduct scenario analysis to understand and take measures against risks and opportunities related to climate change that may impact business and consider them during financial planning.

Risks and Opportunities (Identify risks and opportunities, estimate the amount of monetary impact)

To identify important financial risks and opportunities for an organization, impact and frequency of each item in the span of short (0 to 3 years), medium (3 to 10 years), and long (10 to 30 years) term were considered. Result of the internal assessment is organized and shown below. Of the identified risks and opportunities, we recognized that increase in costs due to introduction of carbon tax, opportunity loss due to insufficient supply of water at production sites, and increase in raw material costs due to decrease in yield of agricultural products are the three items that may have a significantly impact and estimated the amount of their monetary

impact on business. For the basis of analyzing risks and opportunities, we used RCP 8.5 as global warming scenario and IEA NZE 2050 and other scenarios as decarbonization scenario.

1. Identify major risks and opportunities			2. Assess the impact of each risks and opportunities on business (For most important risk, estimate the amount of monetary impact)	3. Determine/conduct response measures
Types of Risks and Opportunities			Estimated impact on business	Measures to reduce risks/seize opportunities
Transition Risk	New regulation	Increase in production costs due to introduction of carbon pricing	<ul style="list-style-type: none"> • Increase in financial burden due to introduction of carbon tax and its tax rate increase • Estimated impact on business: JPY 19.0 billion in 2030 and JPY 35.0 billion in 2050 ^(Note 1) 	<ul style="list-style-type: none"> • Introduction of internal carbon pricing and use it for decision making related to investment • Plan to invest an approximately JPY 100 billion (shift to renewable energy, utilization of heat pumps, etc.) by 2030 to promote decarbonization. • If the targets set in "Environmental Targets toward 2030" and "Environmental Vision toward 2050" are met, effects of reduction will be JPY 9.5 billion in 2030 and JPY 35.0 billion in 2050. <p>> Climate Action</p>
		Impact of insufficient supply of water on operation of production sites	<ul style="list-style-type: none"> • Opportunity loss due to suspension of plant operations caused by insufficient supply of water, Group's most important raw material • Estimated impact on business: JPY 26.5 billion ^(Note 2) 	<ul style="list-style-type: none"> • Assess risks related to water availability of all watersheds where our plants are located in (For details, refer to "Water Risk Assessment") • Consider reducing total amount of water used in plants and returning more than the amount of water used at the plants through water resource cultivation activities <p>> Water Risk Assessment</p>
Physical risks	Chronic risks	Increase in procurement costs due to decline in yield of agricultural products	<ul style="list-style-type: none"> • Increase in costs to procure raw materials with same level of quality as now • Estimated impact on business: JPY 8.0 billion (RCP 8.5 scenario, 2050) (For details, refer to "Activities for stable procurement of raw materials") 	<ul style="list-style-type: none"> • Assess the impact of estimated future yield considering climate change and other factors by origin of raw materials and formulate strategy for stable procurement • Start trial of sustainable farming (For details, refer to "Activities for stable procurement of raw materials") <p>> Activities for Stable Procurement of Raw Ingredients</p>
		Acute risks	Flood, etc. caused by large typhoon or heavy rain	<ul style="list-style-type: none"> • Suspension of operations due to flooding, disruption of value chain, and other damages from a flood

1. Identify major risks and opportunities		2. Assess the impact of each risks and opportunities on business (For most important risk, estimate the amount of monetary impact)		3. Determine/conduct response measures
Opportunities		Impact on health due to rising temperatures	<ul style="list-style-type: none"> Rising average temperatures and heat waves will increase the need for anti-heat stroke beverages and water beverages 	<ul style="list-style-type: none"> Invested in capital to increase production capability and stable supply system Products development that meet consumer needs <p>➤ Strategies for Adapting to Global Warming</p>
	Products/ Services	Change in consumer behavior due to increased environmental awareness	<ul style="list-style-type: none"> Enhancement of brand value through public recognition of the company's commitment to the conservation of water resources 	<ul style="list-style-type: none"> Continue and strengthen water cultivation activities based on scientific data, water-saving and water quality management activities at plants, and "Mizuiku" - Natural Water Education Program as well as sharing information with the public <p>➤ Water Sustainability</p>
	Resource efficiency	Cost reduction due to introduction of new technology	<ul style="list-style-type: none"> Reduction in use of petroleum resources and CO₂ emissions due to development of new technology Cost reduction in taxes related to one way plastics 	<ul style="list-style-type: none"> Development of new technology for more efficient PET preform manufacturing process (F-to-P direct recycling technology, etc.) Development of efficient used plastic recycling technology (R Plus Japan Ltd.) <p>➤ Container- and Packaging-related Initiatives</p>

Note 1 :Estimated using our Scope 1 and 2 emissions in 2019 and carbon tax price independently estimated based on forecast figures of the International Energy Agency (IEA)'s "Net Zero by 2050: A Roadmap for the Global Energy Sector (NZE)."

- 2030: Japan, Europe, and Americas. US\$140/ton, APAC US\$90/ton.
- 2050: Japan, Europe, and Americas. US\$250/ton, APAC US\$200/ton.

Note 2: Estimated impact on profit if all plants located in areas with high level of water stress have restriction on water withdrawal. Aqueduct 3.0 Country Rankings developed by World Resources Institute and Water Risk Filter 6.0 developed by World Wide Fund for Nature (WWF) are used for assessing water stress level of areas where our plants are located in. (Exchange rate as US\$1 = JPY145)

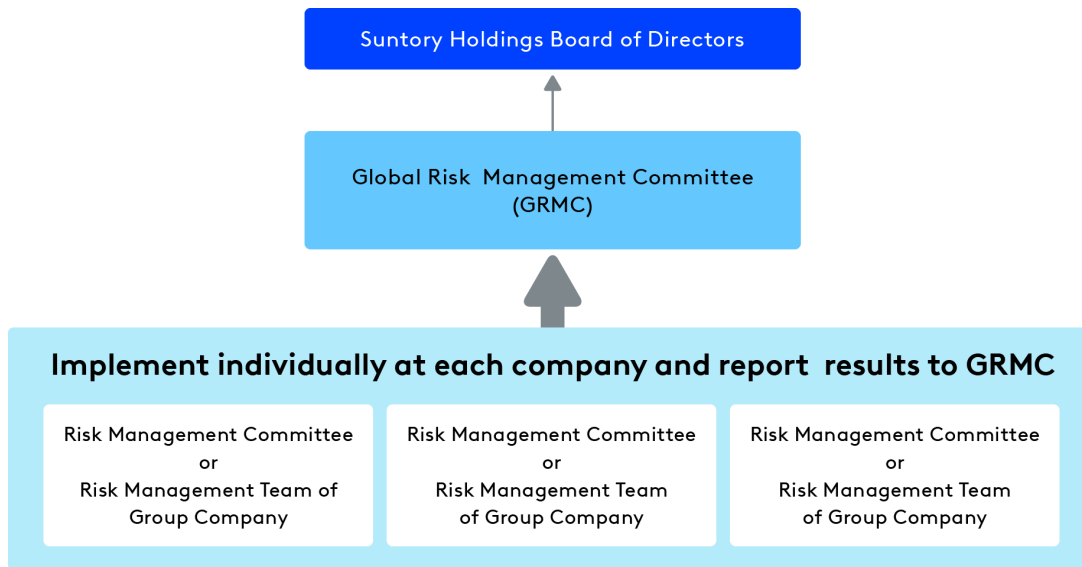
We aim to resilient by considering both scenarios and taking strategic approach toward the above actualized risks and opportunities. We have been focusing on identifying water supply risks, proper management of water, water resource cultivation activities, and other water sustainability activities but are considering risks related to raw material procurement and other aspects. In addition, in order to reduce GHG emissions throughout the value chain, from raw material procurement to manufacturing, distribution, sales, and recycling, we set challenges for each department and take action. For opportunities, we are expanding product portfolio of beverages with ingredients which are recommended by the Ministry of Environment of Japan as products addressing climate change. We believe that continuing and enhancing water resource cultivation activities, "Mizuiku" - Natural Water Education Program and other activities related to water as well as sharing information about Suntory Group's approach to water to the public will raise are brand value and lead to increased sales. In terms of resource efficiency, we are actively promoting recycle of plastic bottles.

3. Risk Management

We define risk as current and future uncertainties that may affect the execution of business strategy and the achievement of business objectives. Through the Global Risk Management Committee (GRMC) and the risk management committees and risk management teams established at each group company, we identify and

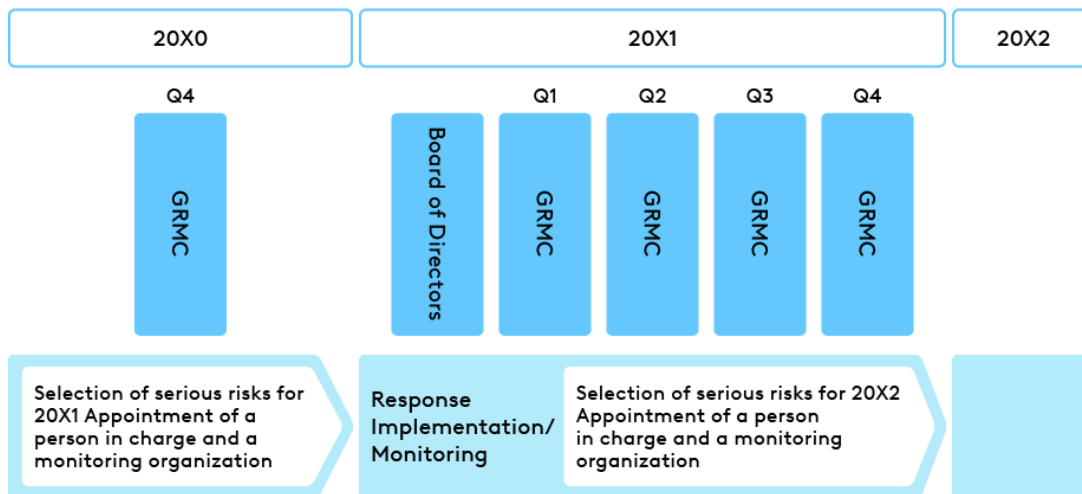
evaluate climate change and other important risks for the entire group and identify risks that should be prioritized for our company, consider countermeasures, and reviewing them on an annual basis.

Risk Management System



Approach to Managing Identified Risks

For the identified risks that should be prioritized, a person in charge and a monitoring organization will be appointed to implement the risk countermeasures. The response status is reported and discussed by the Global Risk Management Committee (GRMC), and the PDCA cycle of extraction, evaluation, countermeasures, and monitoring is carried out by selecting important risks for the next fiscal year based on the response results.



4. Indicators and Targets

Regarding climate change and water, which are expected to have a large impact on business, Suntory Group has established "Environmental Targets toward 2030" as the medium-term targets with 2030 as the target year and "Environmental Vision toward 2050" as the long-term vision with 2050 as the target year, and are moving ahead with initiatives.

Environmental Vision toward 2050



Water Sustainability

- Reduce the water intensity of production at our owned plants*¹ by **50%***² globally.
- Replenish more than 100% of water used at all of our owned plants globally through conservation of the surrounding ecosystem.
- Achieve sustainable water use for all key ingredients.
- Share the Sustainable Water Philosophy to the communities where our business operates.



Climate Change Measures

- Aim for net **zero** greenhouse gas emissions across the whole value chain by 2050

Continue to promote energy conservation, proactively implement renewable energy solutions, utilize next-generation infrastructure options and work together with stakeholders across the value chain in order to contribute to realizing a decarbonized society



Environmental Targets toward 2030



Reduction of water used in direct operation

Reduce the water intensity of production at our owned plants*¹ by **35%***² globally. In addition, explore reduction of absolute amount of water withdrawn in highly water stressed areas



Water replenishment

Replenish more than **100%** of water used in at least 50% of our owned plants*¹ globally, including all those in highly water stressed areas, through local water source conservation efforts.



Sustainable water use in raw ingredients

Collaborate with suppliers to improve water-use efficiency in the production of water-intensive key ingredients*³ in highly water stressed areas.



Water education and access to safe water

Expand water education programs and initiatives to provide safe water access for more than **1 million people**.

Greenhouse gas (GHG)

- Reduce GHG emissions from our direct operations by **50%***⁴
- Reduce GHG emissions across our entire value chain by **30%***⁴



*¹ Suntory Group plants that manufactures finished products

*² Reduction per unit production based on the business fields in 2015

*³ Coffee, barley, grapes

*⁴ Based on emissions in 2019

Water

To achieve the 2030 target, Suntory Group is globally promoting various water-related initiatives such as activities to conserve and restore the natural environment. We started the Natural Water Sanctuary Initiative to cultivate water resources in forests in 2003. Now we have 23 Suntory Natural Water Sanctuaries in 16 prefectures which cover a total area of more than 12,000 hectares and supply more than twice the amount of water used by our plants in Japan. In 2023, we received the highest level of certification—Platinum—from the Alliance for Water Stewardship, an internationally prestigious organization that promotes water conservation and stewardship (responsible management of water resources). Four Suntory Group plants currently hold AWS certification.

Climate Action

Suntory Group has switched purchased electricity to 100% renewable in all our 63 manufacturing sites and R&D facilities in Japan, the Americas and Europe by 2022. In addition, we introduced internal carbon pricing to from 2021 and plan to invest a total of approximately 100 billion yen by 2030 to promote decarbonization. The company estimates that these actions together will amount to a reduction of approximately 1 million tons of greenhouse gas (GHG) emissions in its direct operations compared to a business-as-usual projection for 2030. In addition, in 2022 Suntory Group signed a basic agreement with Yamanashi Prefecture to realize an environmentally harmonious and sustainable society, with the aim to introduce, by 2025, a 16-megawatt Yamanashi Model Power-to-Gas (P2G) System. This will become Japan's largest facility for green hydrogen production, and will be located at the Suntory Minami Alps Hakushu Water Plant and Suntory Hakushu Distillery. With this system, Suntory plans to convert the heat energy used at the plants to green hydrogen, as well as study and collaborate with the prefecture regarding the use of green hydrogen in the area.

For GHG-related measures, we are reducing Scope 3 emissions through strengthening recycling of plastic bottles as well as starting project on regenerative agriculture. We have also approached raw ingredient suppliers to kick start collaborations.

2023 Progress



Water Sustainability

Reduction of water used in direct operation

- Reduced the water intensity of production by **28%** compared to 2015.

Water replenishment

- Water resource cultivation activities implemented in **41%** of all owned plants globally.

Sustainable water use in raw ingredients

- As an initiative on barley production through regenerative agriculture, we began working with our malt suppliers to verify the improvement of water use efficiency by improving soil water retention.
- Started building a pilot program to assess and support water use through regenerative agriculture for coffee farmers in the Cerrado region of Brazil.

Water education and access to safe water

- Total **1,070,000** people
Water education program:
710,000 people
Provision of safe water:
360,000 people



Climate Change Measures

Greenhouse gas (GHG)

- Direct operations
24% reduction compared to 2019
- **7.8%** reduction compared to 2019

➤ For more information on specific indices for achieving the target, [Environmental Targets toward 2030 and Environmental Vision toward 2050](#), please visit here.

➤ For more information on results of GHG emissions, please visit here.

Packaging & Resource Efficiency

▾ Policies and Our Approach

▾ Promoting Structure

▾ Targets and Progress

▾ Our Initiatives

Policies and Our Approach

To build a recycling-oriented society, Suntory Group will promote problem-solving efforts together with various stakeholders. Each employee of Suntory will work on taking responsible action to solve problems and take the initiative in bringing about a sustainable society.

Containers and packaging protect and preserve the quality of products until they reach customers. However, most end up becoming post-consumer waste.

Suntory Group recognizes the social and environmental impacts that containers and packaging cause and established voluntary "Guidelines for the Environmental Design of Containers and Packaging" in 1997. Designs are made following the Guideline such as selecting material for labels and color of glass bottles that consider recycling. In addition, we are engaging in initiatives from the stand point of Life Cycle Assessment (LCA) to reduce environmental impact of containers and packaging.

3Rs of Containers and Packaging

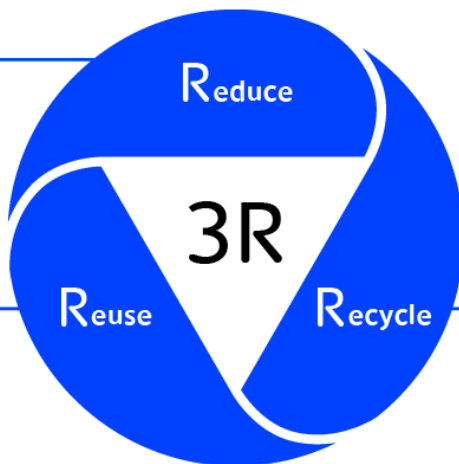
Suntory Group works to develop containers and packaging that give consideration to the environment, based on the 3Rs of "Reduce, Reuse, and Recycle." We work on reducing the weight, using materials with less environmental impact, and designing packaging that is easy to recycle, while taking into consideration usability from the time customers drink the product to the time it is recycled. We also work in collaboration with various recycling organizations and local governments to promote recycling.

Reduce the Amount Used

We are coming up with ways to reduce the amount of materials used in containers, by, for example, making them lighter, to better value our resources.

Use Over Again

We are reusing containers such as beer bottles and casks, as well as on-premise non-alcoholic beverage bottles.



Use as a Resource

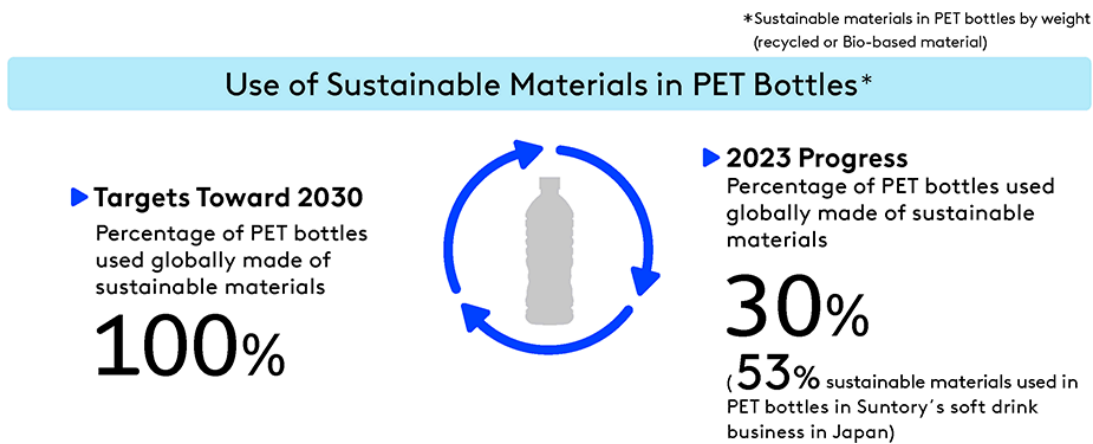
We are actively using recycled materials. We are also incorporating processes and designs to make it easier to recycle.

Promoting Structure

Global Sustainability Committee

To promote sustainability management, the Global Sustainability Committee (GSC) acts as an advisory committee to the Board of Directors. The Group's sustainability strategies and the progress on priority themes (water, GHG, containers and packaging, raw ingredients, health, human rights and enriching life) are discussed in the GSC under the lead of the Chief Sustainability Officer.

Targets and Progress



Our Initiatives

Initiatives for Plastic

Plastic products have enriched our lives through their usefulness. On the other hand, the environmental impact caused by improper handling of used plastics has become a social problem. In Japan, the Ministry of the Environment has formulated the "Plastic Resource Recycling Strategy" as a strategy to comprehensively promote resource recycling while recognizing the convenience of plastic products.

Suntory Group also formulated the Plastic Policy in 2019 in order to strongly lead the transformation to a recycling-oriented and decarbonized society. Based on this policy, we aim to achieve 100% sustainable bottle by using only recycled or bio-based material for all our PET bottles used globally by 2030 and eliminating the use of virgin petroleum-based materials.

Suntory Group Plastic Policy

Expressing gratitude toward the Blessings of Nature that are the source of Suntory's products, Suntory Group will provide strong leadership for transforming into a recycling-oriented and zero carbon society to bring about a world where diverse animal and plant life shines and resonates. With its diversity in usage and convenience, plastic has made our lives easier.

The plastic containers and packaging we use serve a useful function, but to prevent them from having a negative impact on the global environment, we will promote problem-solving efforts together with various stakeholders. Each employee of Suntory will work on taking responsible action to solve problems and take the initiative in bringing about a sustainable society.

1. Recycle & Renewable:

- (1) Aim to switch all the PET bottles used globally for Suntory products to be made of recycled or bio-based material by 2030, achieving zero use of virgin petroleum-based materials.
- (2) Actively work and collaborate with government agencies, industry, environmental non-governmental and non-profit organizations for the measures necessary to develop an efficient recycling system based on the situation of each country where we do business.

2. Reduce & Replacement:

Reduce the amount of plastic used by changing the design of containers and packaging and look for the introduction of alternative containers that do not negatively impact the environment in order to effectively utilize resources.

3. Innovation:

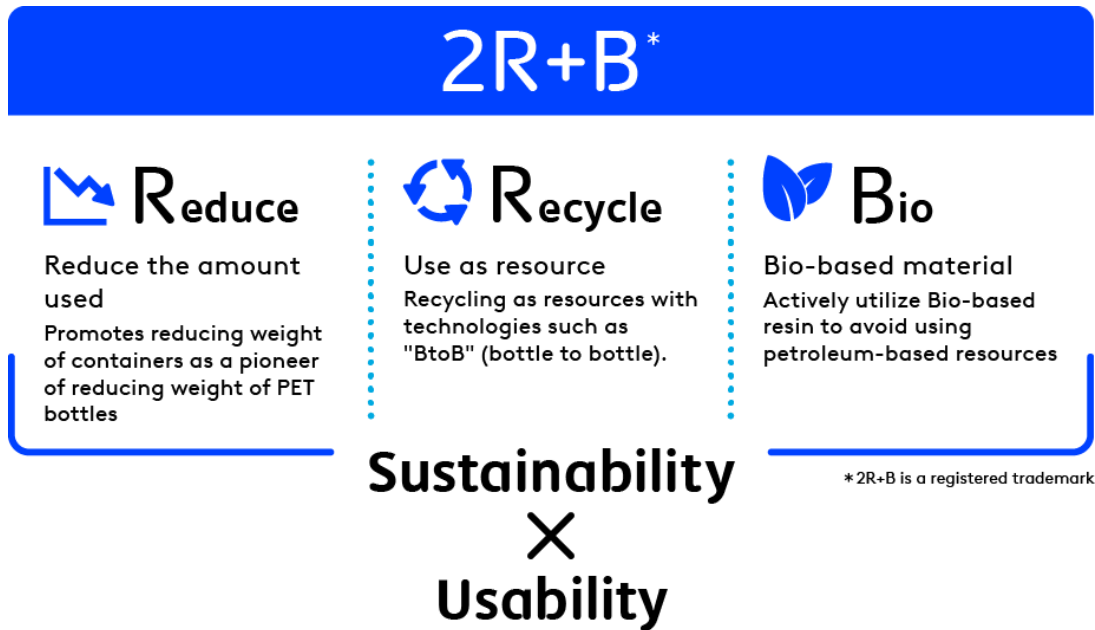
Actively invest in innovation for materials and processes that improve the recycling rate and minimize environmental impact.

4. New Behavior :

Promote activities that drive change in consumer behavior. Each Suntory employee will work to change their lifestyle, promote sorting and collection, and actively participate in social contribution activities such as cleaning up rivers and beaches.

2R+B Strategy

In regards to PET bottle containers, we are taking action based on the 2R+B (Reduce/Recycle + Bio) strategy, which is unique to Suntory. The concept is to replace fossil-fuel-derived materials with renewable materials to the extent possible, while reducing the use of resin and using recycled materials in development to achieve thorough and effective use of resources.



Reduce: Lightweighting

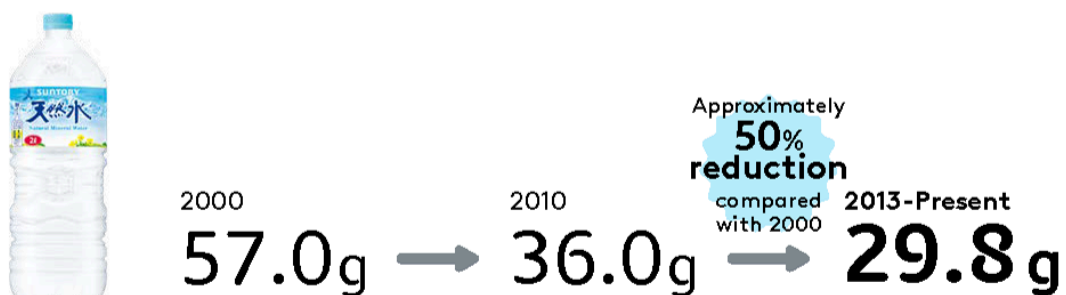
For approximately 20 years now, Suntory Group has been working to make PET bottles as well as their caps and labels lighter and thinner. We are aiming to effectively use resources while maintaining and improving bottle quality (maintaining beverage quality and ease of bottle use) while drinking.

Change in Weight of 550-mL Suntory Tennensui PET Bottles*¹



¹ 500-mL capacity through 2009

Change in Weight of 2-L Suntory Tennensui PET Bottles



➤ For more information, see “Reduce: Lightweighting”

♻️ Recycle: Recycling PET Bottles

Suntory Group engages in “bottle to bottle” horizontal recycling, where used PET bottles are turned into new ones.

Starting with introducing the Japanese soft drink industry’s first PET bottles using 100% recycled materials*¹ in 2012, we have continued to advance “bottle to bottle” horizontal recycling, including development of the world’s first F-to-P direct recycling technology², which has lower CO₂ emissions compared with conventional recycling methods.

*1 Mechanical recycling

*1 Joint development among four companies including Kyoei Sangyo Co., Ltd



➤ For more information, see “Recycle: ‘Bottle to Bottle’ Horizontal Recycling”

🌿 Bio: PET Bottles Using Bio-based Material

We have set Suntory Group target of switching all products to using 100% sustainable PET bottles (made of recycled or Bio-based material) by 2030. Prioritizing environmentally friendly “bottle to bottle” horizontal recycling, we are aiming to achieve Sustainable society by repeatedly recycling PET bottles as a resource. Meanwhile, there are needs in the soft drink industry as a whole to provide new resources to make up for some PET bottles being recycled for other purposes as well as the growth of the PET bottle beverage market. In response, in addition to “bottle to bottle” horizontal recycling, we are also working to develop PET bottles using Bio-based material.

In 2013, we launched a 550-mL PET bottle for Suntory Tennensui natural mineral water that uses 30% plant-derived material[†]. In 2023 we also launched a 2L PET bottle using 30% plant-derived material.

* Excluding some products for vending machines



Current PET bottle (using 30% plant-derived material) (left)
PET bottle using 100% plant-derived material (right)

Suntory Holdings Ltd. and Anellotech, Inc., a green innovation and technology company in the United States, are working on collaborative development of a PET bottle that uses 100% plant-derived material. Construction began in 2016 on a development and testing plant to produce PET bottle materials in the state of Texas, and testing of the technology for commercialization was completed in 2019. We have achieved to produce paraxylene, a precursor of terephthalic acid that constitutes 70% of PET bottle materials, exclusively from inedible plant-derived material (woodchips) that does not affect the supply chain of materials for food use. We successfully created a PET bottle made from 100% plant-derived material using this technology in December 2021. This marks a breakthrough in commercializing PET bottles made from 100% plant-derived material that do not affect the supply chain of materials for food use.

Cooperation with Stakeholders

Establishment of R Plus Japan to Work on the Recycling of Used Plastics

12 companies (including Suntory) within the plastics supply chain established R Plus Japan Ltd., a joint venture company focused on the recycling of used plastics. As of April 2024, the number of participating companies has expanded to 44, and together with Anellotech, we are developing technologies to recycle used plastics. Many types of plastic apart from PET bottles are reportedly incinerated[†] in Japan at present. This technology enables plastics including PET bottles to be chemically recycled by directly turning such plastics into base chemicals (benzene, toluene, xylene, ethylene, propylene and other chemicals). It requires fewer treatment processes compared to other chemical recycling that requires liquefaction and is anticipated to reduce CO₂ emissions and energy use. Establishing this technology will allow more used plastic to be recycled efficiently.

RPlus Japan Corporation aims to contribute to the solution of the plastics problem, which is common worldwide, through collaboration across industries, in addition to technological development and its implementation in society.

* Includes thermal recovery (heat utilization), in which heat generated during incineration is recovered and utilized for power generation and heat supply



➤ For more information, see the website of R Plus Japan [↗](#)

Social Activities

Suntory employees strive to change their lifestyle, promote sorting and collection, and actively participate in social contribution activities such as cleaning up rivers and beaches.

In September 2022, Suntory PepsiCo Vietnam Beverages in Vietnam conducted a beach cleanup near Hanoi in cooperation with Ocean Conservancy, a global marine nature conservation organization, with more than 150 participants, including employees and their families.



Alliance Membership

Joined the Clean Ocean Materials Alliance (CLOMA)

Suntory Group has been a member of CLOMA, a public-private alliance established in January 2019 at the call of the Ministry of Economy, Trade and Industry, since its inception. Through this alliance, we will strongly cooperate with government agencies and industries to develop and promote alternative materials for plastics, and aim to build an efficient recycling system that meets the needs of each country through information dissemination and technical consulting services to overseas countries.

Joined the Global Plastic Action Partnership (GPAP)

In November 2019, Suntory Group joined the Global Plastic Action Partnership (GPAP), a global alliance dedicated to solving environmental challenges caused by plastics. The GPAP is a global alliance for a circular economy of plastics, created by a public-private partnership based on the World Economic Forum with the aim of solving environmental challenges caused by plastics. Its members include the governments of the United Kingdom and Canada, as well as a wide range of businesses, investors, experts, NGOs, and other citizen organizations. In addition to sharing information and best practices at the global level, it also engages in community-based project activities at the local level.

WWF Japan's Plastic Circular Challenge 2025

In February 2022, Suntory Group joined the Plastic Circular Challenge 2025 organized by WWF Japan (World Wide Fund for Nature Japan) with the aim of realizing a sustainable society.

The Plastic Circular Challenge 2025 is a framework for companies to respond to WWF Japan's call for action to solve the problems of plastics. Participating companies have set a milestone year of 2025 as their commitment to containers and packaging and single-use plastics, and will promote activities based on a "Sustainable Circular Economy" approach.

Cans/Bottles/Barrels/Paper Packaging/Cardboard

Reduce: Lightweighting

Lightweighting in Cans

We are furthering the lightweighting in cans such as those used for beer and coffee by aiming to dramatically reduce the amount of resources that are used while maintaining the usability for customers.

We have conducted initiatives for aluminum cans that include shrinking the diameter of the lid of beer cans in 2008 and the bodies of aluminum cans containing low-alcoholic beverages such as beer and Chu-Hi in 2014. In addition, the promotion of even more lightweighting is underway with the introduction of thinner bodies even in steel cans for coffee.



Boss Rainbow Mountain Blend
The Premium Malt's
-196°C Chu-Hi Strong Zero <Double Lemon>

Lightweighting in Glass Bottles

The medium-sized glass bottle for The Premium Malt's has achieved weight savings of roughly 10 g to 460 g in 2014. The thickness of the body section that the label is adhered has been designed 0.2 to 0.3 millimeters thinner to prevent damage by bumping into other bottles. We are also improving the shape of the bottle so it does not get damaged when opening the bottle with cap opener and other improvements in the quality of the bottle.



The Premium Malt's medium glass bottle

Reducing the Weight of Cardboard

To reduce our environmental impact, we are using short flap cardboard cartons in cooperation with the industry, beginning with using them for beverages in small PET bottles since the spring of 2012. Through this, we have reduced the use of paper by about 20% compared to conventional cardboard cartons. Short flap cardboard cartons have been used for beer and RTD products since 2019.



Short flap cardboard cartons that reduce cardboard usage on its sides

Reuse: Promoting Collection and Reuse of Containers

Reusing Glass Bottles and Barrels

Returnable containers (bottles, barrels) for beers and non-alcoholic beverages for restaurants are used often and we collect them via our own route and wash them for repeated use. Furthermore, we support the collection of glass bottles that are disposed of by liquor stores and restaurants through building collection routes in the distribution channel by specialized business operators since 1974.

One-way bottles are collected through effective sorting and collection routes by municipalities and other organizations.

Recycle: Promote recycling of containers

The World's First 100% Recycled Aluminum Can

Suntory Spirits Ltd. (Suntory) launched the world's first 100% recycled aluminum can^{*1} in its limited editions of The Premium Malt's CO₂ Reduction Can (350 mL, 5.5% ABV) and The Premium Malt's 〈Kaoru〉 Ale CO₂ Reduction Can (350 mL, 6%

ABV) in September 2022. This first of its kind 100% recycled aluminum can*1 was jointly developed by UACJ Corporation and Toyo Seikan Group Holdings, Ltd. and emits 60% less CO₂ compared to when creating a regular aluminum can*2.

*1 First as a commercialized SOT (Stay on Tabs) can which uses only recycled aluminum derived from canned materials (based on research by Toyo Seikan Group and UACJ, as of July 2022)

*2 350 mL beverage aluminum can produced by Toyo Seikan using UACJ aluminum material



Shifting to Recycled Paper Containers

Paper containers were introduced for shochu and spirits in April 2010 and for wines in February 2014. Approximately 90% of the containers for alcoholic beverages have been changed to more recyclable paper containers*.

We have been using containers with evaporated aluminum on its inside for preserving quality but it was difficult to separate paper and aluminum when recycling. The new paper container implements vapor deposition of non-aluminum transparent material to improve ease of recycling.

* As of April 2024



Suntory Umeshu
Delica Maison

Use of Green Aluminum*1 Can

On January 11, 2024 Suntory Spirits Ltd. (Suntory) introduced Green Aluminum*1 in its limited edition of The Premium Malt's (350ml, 5.5% ABV).

The Green Aluminum used in this product has been designed and produced in a joint effort among four other companies from different fields; Sumitomo Corporation, Sumisho Metalex Corporation, Kobe Steel, Ltd. and Daiwa Can Company. The Green Aluminum was allocated using a mass balance*2 method, which reduces CO₂ emissions by 25%*3 compared to conventional aluminum cans*4.

*1 Aluminum produced using renewable energy sources with reduced CO₂ emissions

*2 Under the mass balance approach, for a product manufactured by mixing a material that has a specific characteristic with those without that characteristic, the characteristic can be allocated to a part of the output of the product in proportion to the amount of the material with the characteristic used in the production process.

*3 Verified and validated from a third-party impartial and neutral standpoint by DNV Business Assurance Japan K.K.

*4 350ml beverage aluminum cans published in the Japan Aluminum Association Beverage Aluminum Can Inventory Survey Report (July 2023)



The Premium Malt's 350ml

Use of FSC®-Certified Cardboard

Suntory Group is gradually adopting paper packaging materials that have obtained FSC certification*, which ensures proper management of international forests, for products made in Japan. We introduced FSC-certified cardboard packaging for Suntory Tennensui natural mineral water products manufactured after August 2017. Since 2018, we have switched to FSC-certified cardboard for the packaging of all Suntory Tennensui brand products. We are promoting the use of FSC-certified paper packaging materials throughout Suntory Group, with the phased adoption of these materials for the cardboard cartons of non-alcoholic and alcoholic beverage products and for the packaging of six-can packs.



* Forest Stewardship Council (FSC) is an international organization that certifies timber produced from forests globally as well as the distribution and manufacturing processes of the cut timber. This certification considers the environmental conservation of these forests and recognizes timber produced in an economical and sustainable manner which generates revenue for the local community.

Overview of Waste Management

Promoting Waste Reduction and Recycling

As part of our efforts toward establishing a recycling-oriented society, we are working to reduce emissions of by-products and waste and to achieve 100% recycling. Suntory Beverage & Food Europe has set the target of zero waste from its factories and is engaging in waste-reduction and recycling activities. With the target of reducing food waste from products by 50%, it is donating surplus products to charitable organizations to support people struggling with poverty as part of its efforts to achieve this target.

By-products and Waste Generation Performance

Area	Amount of discharge (thousand tons)		
	2020	2021	2022
Japan	228	218	230
Americas	156	410	541
Europe	95	119	144
Asia	32	30	54
Oceania	7	7	6
Africa	0	0	-
Total	518	783	975★

* Data covers 27 production plants in Japan and 62 production plants overseas.

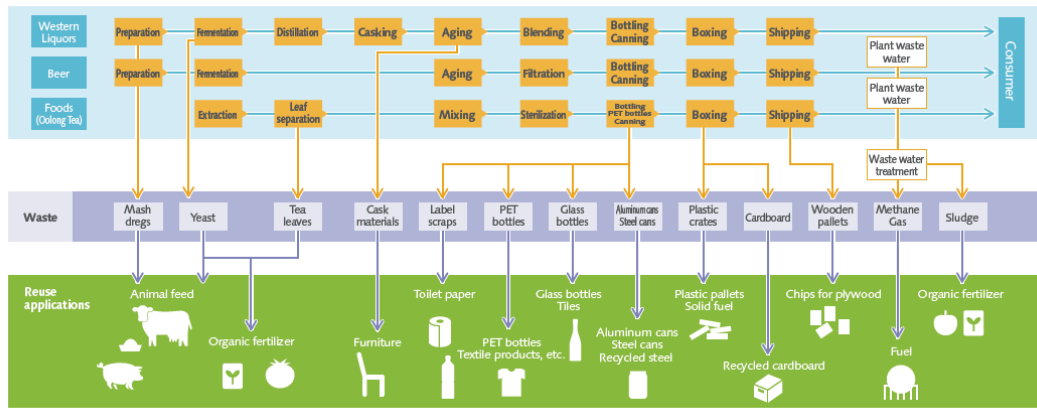
* The increase in emissions in the Americas is due to the addition of waste and by-products to be included from FY2021. The amount of the waste and by-products increased by 238 thousand tons due to the addition.

* Results have received independent assurance from KPMG AZSA Sustainability Co., Ltd. The assured numerical values are indicated with ★.

[Independent assurance report](#) 

Recycling Rate of Japanese Plants and Flow for reuse of by-products and waste generated in each production process

	2020	2021	2022
Amount of discharge (thousand ton)	228	218	230
Amount recycled (thousand ton)	228	217	230
recycling rate (%)	100.0	99.7	100.0



By-products and Waste Generation, Recycling Rate and the Purpose of Use for Recycled Products

Type of waste	Main Purpose of Use	2020		2021		2022	
		Generation (t)	Recycling Rate (%)	Generation (t)	Recycling Rate (%)	Generation (t)	Recycling Rate (%)
Vegetable (glycation, tea, coffee dregs, etc.)	- Animal feed - Fertilizer	164,185	100	158,823	100	167,855	100
Sludge (excess sludge, etc.)	- Fertilizer	30,275	100	27,337	100	28,396	100
Wood waste (cask, palletes)	- Animal feed - Fertilizer	5,186	100	5,267	100	3,658	100
Glass and ceramic scrap	- Glass materials - Base course material	2,285	100	1,337	100	1,172	100
Paper scraps (cardboards, paper labels, etc.)	- Recycled paper - Cardboard materials	5,520	100	5,398	100	5,735	100
Plastic	- Palette - Solid fuel - Supplementary fuel	6,033	100	5,796	100	5,810	100
Metal scraps (aluminum, steel)	- Aluminum - Steel ingredients	3,314	100	3,506	100	3,123	100
Other		11,558	100	9,731	100	13,979	100
Total		228,355	100	217,925	100	229,728	100.0

* Data covers 27 production plants in Japan

Applications of Recycled Materials

We are furthering resource recycling for the by-products and waste produced by Suntory Group in various applications.



Barrel cabinet



Dining Set "TARURU"



Drink sampling tray made from barrel

Products in the line-up of "Suntory Barrel Story" created from whiskey cask materials that have fulfilled their distillery role

➤ [For more information, see "Suntory Barrel Story"](#) [↗](#)

Building a Recycling Circulation Cycle for Food Waste – Izutsu Maisen Co., Ltd.

Izutsu Maisen Co., Ltd. is actively working to reduce and reuse food waste so as not to waste the precious gifts of nature. One predominate initiative is the setup of a recycling circulation cycle for the crusts of bread. Izutsu Maisen cuts off the crusts of the bread when they make their popular fried Pork fillet cutlet sandwiches. These bread crusts are generally given to business operators who are able to recycle them as feed, but Izutsu Maisen launched their original Amai-Yuwaku pork brand that raises pigs on this feed in 2012 because the crusts are suitable as feed. This is an initiative that uses the bread crusts once again in a cycle as a raw material such as in the pork cutlets once.



Original Amai-Yuwaku pork brand

Reduce: Lightweighting

Lightweighting of PET Bottles

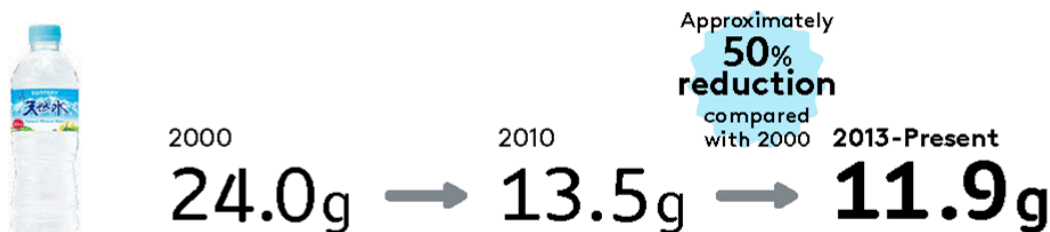
The 550-mL Suntory Tennensui natural mineral water PET bottle (excluding products for vending machines) was developed by Suntory and is the lightest such bottle made in Japan* (11.9 g).

The bottle design reduces the use of fossil-fuel-derived materials by approximately 40% per bottle compared with conventional bottles (13.5 g). For the 2-L version, we were the first in Japan to achieve a 2-L bottle of less than 30 g by reducing the weight by approximately 20% to 29.8 g per bottle from conventional bottles (36.2 g).

* PET bottles for mineral water (500 mL to 600 mL) in Japan. As of April 2023

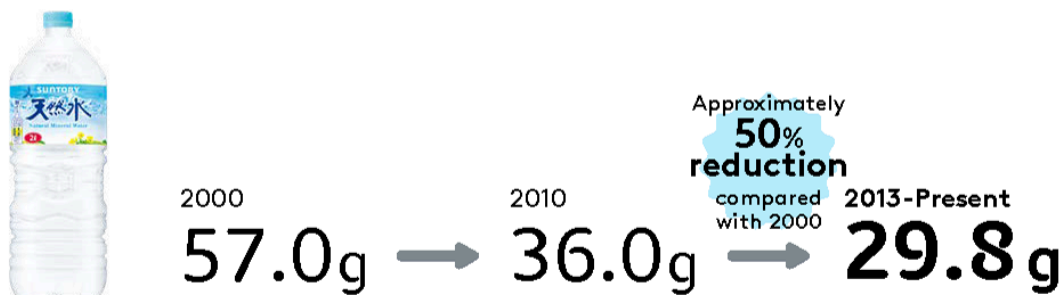


Change in Weight of 550-mL Suntory Tennensui PET Bottles*¹



*1 500-mL capacity through 2009

Change in Weight of 2-L Suntory Tennensui PET Bottles



Thinnest Roll Label*¹ for PET Bottle Beverages in Japan

We are reducing the weight of product labels on PET bottles to reduce their environmental impact. We achieved the thinnest PET bottle roll label in Japan at 16 micrometers (μm^2) in 2012. We launched an even thinner label of 12 μm for the 2-L and 550-mL PET bottles of the Suntory Tennensui natural mineral water in April 2014. Thereafter, we have been extending the label to all of our products that use roll labels. This has allowed us to reduce CO₂ emissions by 25%*³ compared to the existing (16 μm) labels.

*1 Labels that peel off from the glued area instead of peeling off at the perforations

*2 1/1,000 mm

*3 Reduction rate in the film (label) manufacturing process



12 μm thick roll label, thinnest in Japan

Introduction of water-based flexographic printing and water-developed flexo plates to reduce CO₂ emissions during label manufacturing

Suntory is advancing the switch to water-based flexographic printing for the manufacturing of labels for a wide range of products, including "Suntory Green Tea Iyemon," "Suntory Natural Water," "Suntory Oolong Tea," "GREEN DA·KA·RA," and "GREEN DA·KA·RA Barley Tea," reducing CO₂ emissions during label production by more than half compared to traditional oil-based gravure printing. Moreover, in 2024, the water-developed flexo plates, which can reduce CO₂

emissions by about 30% during label plate production, were introduced for the first time^{*1} in the domestic beverage industry for the labels of “Suntory Natural Water” 550ml PET bottles manufactured at the Suntory Kyushu Kumamoto Plant.

*1: Based on our research

Lightest PET Bottle Caps in Japan

We are also reducing our environmental impact for the bottle caps on PET bottles. Since September 2016, we have adopted 1.85-g bottle caps, which are the lightest in Japan^{*1} and use 30% plant-derived material, for the Suntory Minami-Alps Tennensui natural mineral water. This innovation reduces the use of fossil-fuel-derived material by 35%^{*2} and decreases CO₂ emissions by 27% compared to conventional PET bottle caps.

In addition, in March 2019 we introduced polyethylene caps^{*3} made of 100% plant-derived ethylene on a limited basis for the 550-mL Suntory Aso Tennensui natural mineral water, which is manufactured at our Kyushu Kumamoto Plant.

*1 As of April 2024

*2 Per bottle of the Suntory Tennensui natural mineral water (550 mL)

*3 Polyethylene caps with 100% plant-derived ethylene as the main raw material. Excluding trace amounts of fossil-fuel-derived components and colorant components at the time of production line changeover.

Adopting Technology to PET Bottle for Spirits Products

We are taking great advantage of the technology cultivated in our soft drink business in our spirits business. Suntory Spirits Ltd. has launched the 4-L PET bottle weighing 110 g, which is the lightest in Japan, to whisky products such as Kakubin, Torsys and other alcoholic products starting from June 2016. By making it up to 18% lighter than the conventional 134 g or 120 g, the use of PET resin is reduced, resulting in an annual CO₂ emissions reduction of approximately 460 tons (17%)^{*}. We have also removed the grip used on conventional PET bottles and adopted a new deep grip section in the center of the bottle for ease of use in collaboration with the PET bottle manufacturer.

* Based on our calculations



Old 4-L PET bottle and new lightweight 4-L PET bottle

Development of World’s Lightest* Heat-resistant PET Bottle in Southeast Asia Leveraging Japanese Technological Capabilities

The Japanese manufacturing technology and design capabilities for reducing weight of PET bottles have been used in Group companies in Europe and Asia. In 2020, we succeeded in developing the world’s lightest* PET bottle weighing 15 g in heat-resistant filled containers that also pursue functionality, versatility, and design. This heat-resistant PET bottle utilizes technology that prevents deformation of the bottle by dropping nitrogen to create positive pressure.

We have introduced this bottle to Suntory PepsiCo Beverage (Thailand) and Suntory PepsiCo Vietnam Beverage (Vietnam). We also have started using 100% recycled materials for these bottles from 2023.

* In the 450-mL class of heat-resistant PET bottles (as of April 2024, according to our own research)



Lightest Heat-Resistant Bottle with Liquid Nitrogen Injection in Southeast Asia

PET Bottle Self-Manufacturing Technology at Suntory Global Spirits

Suntory Global Spirits has been introducing its first bottle self-manufacturing technology for 1.75-L spirits since 2017. This self-manufacturing process has enabled weight reduction of bottles by 14%. Transporting preforms instead of bottles has greatly improved efficiency in transport, contributing to the reduction of environmental impact.

We introduced even lighter bottles in 2023, and reduced the bottle weight by approximately 26% compared to the weight before the 2017 self-manufacturing project. We are also considering using the self-manufactured bottle technology obtained through this initiative to further expand to other capacities, such as 100 mL to 1 L.

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Recycle: Promote “Bottle to Bottle” Horizontal Recycling

Initiatives in Japan

“Bottle to Bottle” Horizontal Recycling

“Bottle to bottle” horizontal recycling refers to recycling used PET bottles into new ones. PET bottles are resources that can be recycled many times, which can help reduce the use of fossil-fuel-derived materials and CO₂ emissions. “Bottle to bottle” horizontal recycling through mechanical recycling* is the recycling method with the least environmental impact (CO₂ emissions in processes from raw materials procurement to PET preform production). In 2011, Suntory was the first company in the Japanese beverage industry to establish this technology, and has continued promoting “bottle to bottle” horizontal recycling since then.

* Mechanical recycling: A method in which recycled resin obtained by material recycling (used products are processed by crushing, washing, and made into raw materials for products again) is further processed under high temperature and reduced pressure for a certain period of time to remove impurities in the recycled material and make PET resin of suitable quality for beverage containers.



History of Efforts to Create 100% Sustainable PET Bottles

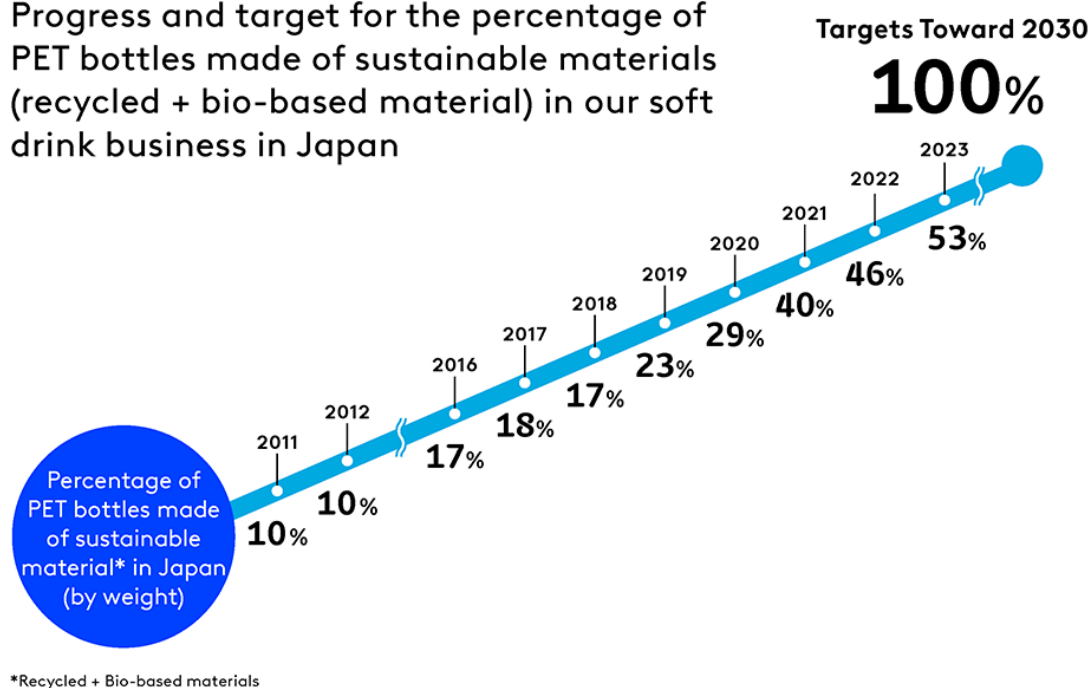
Toward realization of a sustainable society, we have led the industry in recycling used PET bottles into beverage PET bottles together with cooperating companies for more than 10 years. In cooperation with Kyoei Sangyo Co., Ltd., in 2011 we built the first “bottle to bottle” horizontal recycling system in the Japanese beverage industry. Starting with launching the first PET bottle made of 100% recycled material^{*1} in the Japanese soft drink industry in 2012, we have made technological innovations over these many years, including development of the world’s first F-to-P direct recycling technology^{*2} to reduce CO₂ emissions more than conventional technology, and have proactively commercialized and promoted “bottle to bottle” horizontal recycling.

In 2019, we established Suntory Group Plastic Policy. In it, we set the 2030 target of using 100% sustainable PET bottles globally by using only recycled or bio-based material with zero use of virgin fossil-fuel-derived materials and are conducting various activities toward this target. In 2023, we expanded use of sustainable PET bottles (using only recycled or bio-based material) in our soft drink business in Japan to 53% of all PET bottles Group-wide by weight.

*1 Mechanical recycling

*2 Joint development among four companies including Kyoei Sangyo Co., Ltd.

Progress and target for the percentage of PET bottles made of sustainable materials (recycled + bio-based material) in our soft drink business in Japan



Promoting Horizontal Recycling with Local Governments and Corporations

With the aim of realizing a recycling-oriented society, Suntory Group has been working on “bottle to bottle” horizontal recycling, in which used PET bottles are recycled into new PET bottles, in cooperation with local governments and companies.

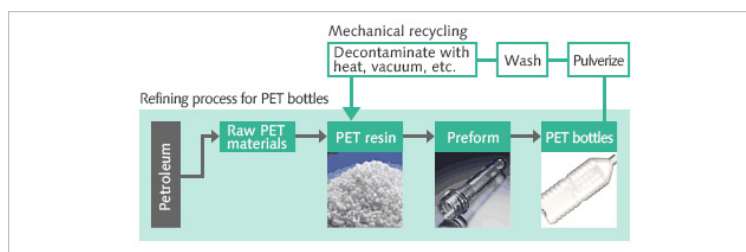
We have concluded similar agreements with distribution companies and commercial facilities to recycle used PET bottles collected at stores and other locations into Suntory beverage bottles through “bottle to bottle” horizontal recycling and hold consumer awareness events.

Also, by concluding an agreement on “bottle to bottle” horizontal recycling with local governments, we will recycle PET bottles discharged by residents as resources into new PET bottles for Suntory beverages. In addition, educational classes on PET bottle recycling are held at elementary and junior high schools in municipalities with which we have concluded agreements.

Development of the “Bottle to Bottle” Horizontal Recycling System

In 2011, in collaboration with Suntory Beverage & Food Ltd. and Kyoei Sangyo Co., Ltd., we built the first “bottle to bottle” mechanical recycling system^{*1} for PET bottles in the Japanese beverage industry. In addition, we published a joint assessment^{*2} on the safety of recycled PET bottles in 2012.

This system received Commendation for Contributors to the Development of a Recycling-oriented Society in 2011 and 2012, and Commendation for Global Warming Prevention (Technological Development and Commercialization Category) in 2011 both from the Minister of the Environment, and Nikkei Global Environmental Technology Excellence Award in 2011 for the first time in the food industry. We also received the 21st Global Environment Award in 2012 and Environmental Excellence Award hosted by the Hitachi Environment Foundation and the Nikkan Kogyo Shimbun, Ltd. in 2013.



The recycled PET bottles produced by mechanical recycling take on a color during the process, but they have no quality issues and safety issues. The mechanical recycling system have highest cost efficiency and lowest environmental impact^{*3} (CO₂ emissions from raw material procurement to preform manufacturing) among PET bottle recycling systems adopted in Japan.

*1 Mechanical recycling system: A method in which recycled resin obtained through material recycling (where used PET bottles are crushed, washed and otherwise processed into materials to make more PET bottles) is further processed under high temperature and reduced pressure for a certain period of time to remove impurities in the recycled material and make PET resin of suitable quality for beverage containers.

*2 Japanese Journal of Food Chemistry and Safety, Vol. 19 (1), 2012, pp. 7–13

*3 Based on our research

Adoption of F-to-P direct recycling technology

In 2017, as part of our recycling efforts, we collaborated with Kyoei Sangyo Co., Ltd. and overseas machinery manufacturers (EREMA in Austria and SIPA in Italy) to develop F-to-P direct recycling technology which is expected to further reduce environmental impact. We began production in the fall of 2018. F-to-P direct recycling technology is a technology that can directly manufacture preforms after melting and filtering flakes made from collected PET bottles that have been crushed and washed at high temperatures.

The F-to-P direct recycling technology can reduce CO₂ emissions by 70%* compared with virgin PET bottles made of fossil-fuel-derived material. (Current mechanical recycling can reduce CO₂ emissions by 60%*.)

* Processes from used PET bottles to the preform production



Products that use F-to-P direct recycling technology

Active Implementation of Recycled PET Bottles within the Group

To achieve the 2030 fully sustainable PET bottle goal, we are promoting implementation of recycled PET bottles globally.

In Japan, we have introduced PET bottles made of 100% recycled PET bottles for GREEN DA-KA-RA Yasashii Mugicha (680 mL, 600 mL) and Yasashii Rooibos (600ml). In addition, we use 100% recycled PET bottles for many of our products, including Craft Boss and Iyemon.

We have adopted the logo mark “Bottles are resources! Towards a Sustainable Bottle” on all PET bottled products* to communicate to consumers that PET bottles are a resource that can be recycled many times. Apart from the soft drink business in Japan, we also use 100% recycled PET bottles for 720-mL wine products in Japan. We will continue to accelerate these efforts Group-wide.

* Excluding label-less products



Yasashii Mugicha 680ml
Yasashii Rooibos 600ml
Delica Maison Red 720ml PET bottle



Logo “Bottles are resources!
Towards a Sustainable Bottle”

“Bottle to Bottle” Horizontal Recycling Progress Through Packaging Improvements

“Label-free” PET bottle products do not have the plastic label wrap found on conventional PET bottle products. This provides greater user convenience from not having to remove the label. We believe that giving customers a more convenient sorting experience for recycling will help encourage “bottle to bottle” horizontal recycling that turns used PET bottles into new ones. We introduced label-free bottles in 2020 and have adopted them in flagship products including for the Suntory Tennensui natural mineral water, CRAFT BOSS and Iyemon brands.



We developed a new 2-L PET bottle for the Suntory Tennensui natural mineral water that is easy to fold into a size about one-sixth its original shape when empty and launched it in April 2023. This new bottle resolves some dissatisfaction in the home with empty PET bottles, namely how the bottles pop back to their original shape after being crushed and how they take up space until collection day. The new bottle is also expected to help create higher-quality recycling for PET bottles by making it easier for consumers to sort PET bottles without having to remove their cap or label.



Awareness-raising Activities for Horizontal Recycling

Suntory Group has been working to promote understanding of horizontal recycling initiatives and sorted collection of PET bottles through seminars outside the company to help realize a sustainable society. In 2021, we signed an agreement with Waseda University on the realization of a resource-recycling society, and we are also making efforts for the next generation.

At elementary and junior high schools in municipalities with which we have concluded “bottle to bottle” agreements, we conduct educational classes on the significance of horizontal “bottle to bottle” recycling and how to correctly sort PET bottles, providing an opportunity for students to think about recycling and resource circularity. At companies with which we have concluded these agreements, we also hold educational seminars for employees and events for their families.



Communication with Consumers

Since 2022, we have released a communication campaign in Japanese using a cat cartoon character to highlight simple, ordinary things that people do without even thinking that are in fact sustainable practices. We are also proactively communicating with consumers and raising awareness for sustainability in other ways, including holding “PET bottle post” events based on the concept of having as many people as possible think of PET bottles not as garbage but as a resource, and of recycling bins not as garbage bins but as something more like postal boxes that “deliver” the resource to the next person.



Communication campaign



PET bottle post

Promoting Horizontal Recycling Through Industry Cooperation

From the fall of 2022, we will start deploying recycling boxes with industry-standard specifications for outdoor areas where there is a lot of contamination.

New recycling boxes with innovations such as a downward-facing insertion slot have been shown to reduce the amount of foreign matter put into them. This improves the quality of collected PET bottles and contributes to “bottle to bottle” horizontal recycling. Using recycling boxes with industry-standard specifications will improve efficiency for vending machine operators and recycling processes and promote PET bottle resource circularity.

➤ [For more information, see Japan Soft Drink Association](#)



Initiatives outside Japan

Introducing Recycled PET Bottles Overseas

Suntory Beverage & Food Europe brand Ribena was the first soft drinks brand in the UK to use a 100% PET bottle made from recycled plastic in 2007. The company has been increasing its use of recycled plastic—in 2021 this included the introduction of 100% recycled PET in May Tea and Pulco in France. In 2022, Suntory Beverage & Food Europe has started 100% recycled PET bottles in its Lucozade Sport brand in the UK and Ireland.

Suntory Beverage & Food Asia Pacific, with its main operations in Vietnam and Thailand, is also strengthening its efforts to promote recycling. It introduced the company's first 100% recycled PET bottles in Vietnam in 2022, and in Thailand in 2023.



100% sustainable Ribena bottle

Development of New Technology to Drive Horizontal Recycling

Suntory Beverage & Food Europe (SBFE) is participating in a consortium with green biotech company Carbios. In June 2021, the consortium successfully developed the world's first PET bottle of food-grade quality made from chemical recycling using enzymatic technology*. A prototype was made for SBFE's Orangina brand, and a Japanese technical team helped test aspects of the prototype that Carbios was not able to, including the safety and ease of manufacturing the bottle. In September 2021, Carbios opened its first demonstration plant with the goal of launching commercial plant operations in 2025. This innovative technology breaks down polyethylene terephthalate (PET) into its building blocks using a special enzyme that only breaks down PET plastic to create the raw materials of PET bottles that can then be reused. This technology is anticipated to enable recycling of PET bottles that are not properly sorted and color PET bottles that are commonly used in Europe to the quality level of virgin PET bottles.

* Based on our research

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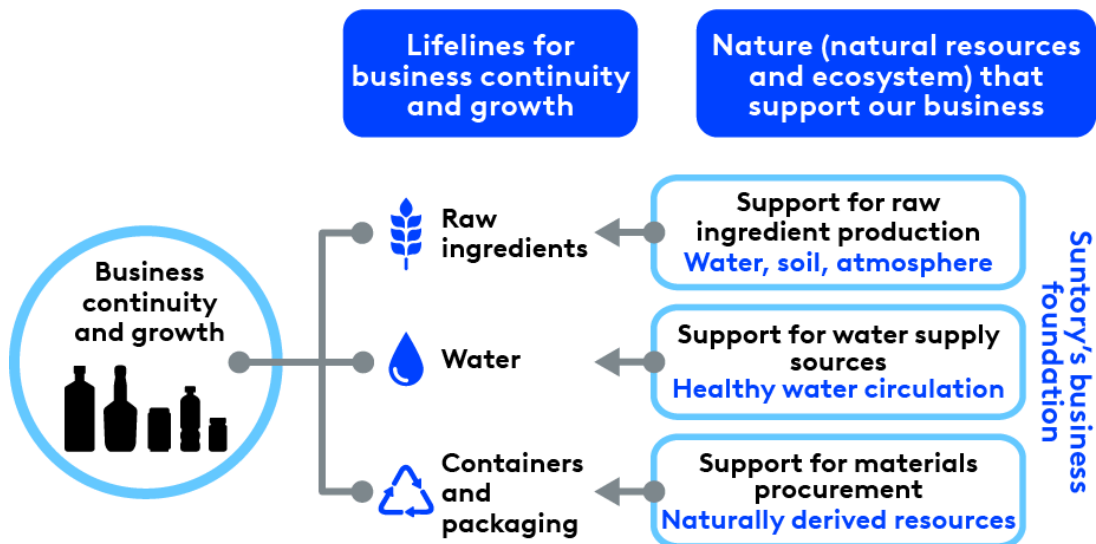
Biodiversity

- ▾ Our Policy and Approach
- ▾ Promoting Structure
- ▾ Our Initiatives

Our Policy and Approach

The nature and its ecosystem - forests nurtured by water, rivers, oceans, atmosphere and living creatures - are the valuable management foundation of Suntory Group's business. As a company whose products rely on blessings of nature, we strive to protect nature and its ecosystem at the source of our water and ingredients through water source conservation, bird conservation activities, and a shift to sustainable agricultural practices.

The nature and its ecosystem - forests nurtured by water, rivers, oceans, atmosphere and living creatures - are the foundation of the Suntory Group's business.



➤ For more information on Suntory's Environmental Principles, Environmental Vision toward 2050, and Environmental Targets toward 2030, see Environmental Management.

Disclosure Based on TNFD Recommendations

For promoting to set science-based targets for nature and activities to achieve them, Suntory Group is participating in the program run by the Science Based Targets Network (SBTN) for piloting the target validation process in accordance with the SBTN guidance released in May 2023, being the only Japanese company among the 17 piloting companies.

We have started pilot disclosure of the Taskforce on Nature-related Financial Disclosures (TNFD) based on assessments and progress made in the SBTN validation pilot.

➤ For more information, see Disclosures Based on TNFD Recommendations

Promoting Structure

Global Sustainability Committee (GSC)

To promote sustainability management, the Global Sustainability Committee (GSC) acts as an advisory committee to the Board of Directors. The Group's sustainability strategies and the progress on priority themes (water, climate change, containers and packaging, raw ingredients, health, human rights and enriching life) are discussed in the GSC under the lead of the Chief Sustainability Officer.

➤ For more information on the Global Sustainability Committee, see Environmental Management.

Initiatives

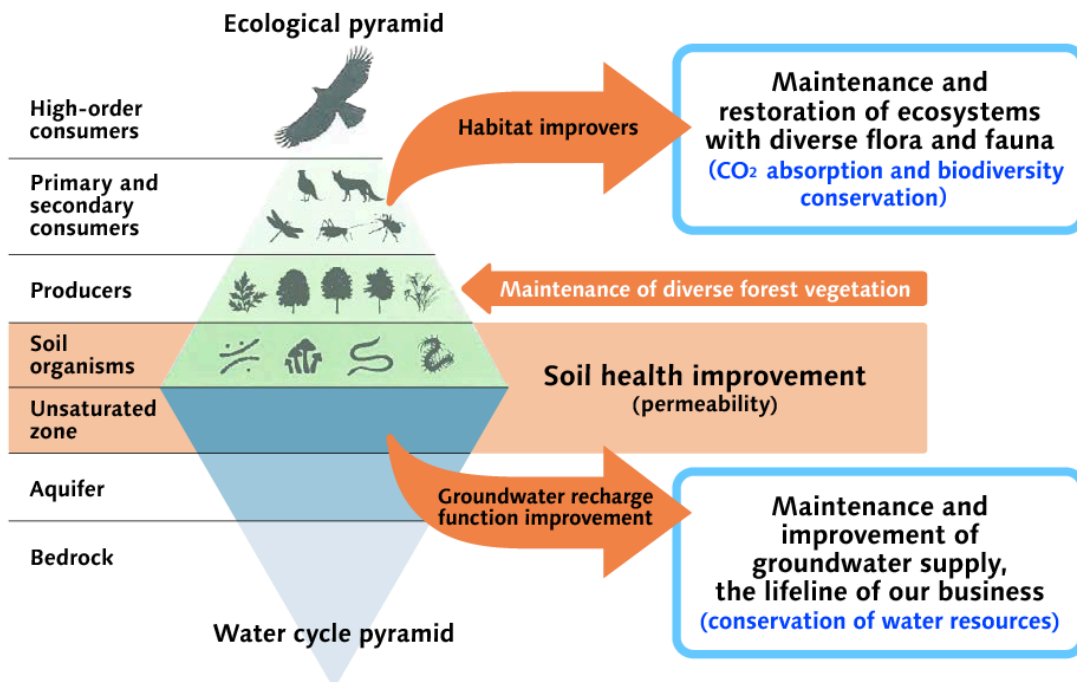
Water Sustainability

Suntory Natural Water Sanctuary

To preserve the integrity and sustainability of groundwater, Suntory Group has been cultivating forests in the watersheds around our plants as sanctuaries to nurture groundwater. These forests recharge more than twice the amount of water withdrawn by our plants in Japan.

Forests that nurture pristine groundwater are also rich in biodiversity. When the forest ecosystem is restored, the flora and fauna also begin to thrive in new ways. The Suntory Natural Water Sanctuary is managed systematically through continuous monitoring of the ecosystem, which includes plants, birds, and other wildlife. Considering how wild birds are a barometer of environmental health, we have experts conduct a wild bird survey every year to furnish a broader understanding of the changes taking place in the entire supporting ecosystem.

At Natural Water Sanctuaries in Japan, we are carrying out an Eagle and Hawk Chick-Rearing Support Project to support the nesting and breeding of birds of prey, which are at the top of the ecological pyramid. The aim is to continue maintaining forests rich in biodiversity from the perspective of protecting birds.



30by30 Alliance for Biodiversity

In April 2022, Suntory Group joined the 30by30 Alliance for Biodiversity. The alliance is formed as a voluntary coalition of local governments, companies, and NPOs to conserve or protect at least 30% of Japan's land and

sea areas by 2030 to halt loss and restore biodiversity. Its objective is to promote and to actively communicate the initiative to expand Japan's national parks and to register socio-ecological production landscapes (satochi-satoyama) and company-owned forests in the World Database as OECMs^{*}.

Six of Suntory Group's Natural Water Sanctuaries receives approval to be certified as OECM.

The six Suntory Natural Water Sanctuary sites certified as OECM are:


- 1. Hyogo Nishiwaki-Monryusan (Nishiwaki City, Hyogo) 
- 2. Tokyo Akigawa (Akiruno City, Tokyo) 
- 3. Shizuoka Oyama (Oyama Town, Shizuoka) 
- 4. Nikko Kirifuri (Nikko City, Tochigi) 
- 5. Ohmi (Hino Town, Shiga) 
- 6. Akagi (Shibukawa city, Maebashi city, Gunma) 



* OECM stands for "Other Effective area-based Conservation Measures." OECMs are areas conserved at the initiative of private organizations or areas where the conservation of nature is achieved mainly as a by-product of other management.

Publication of a biodiversity report

The "Suntory Natural Water Sanctuary Biodiversity Restoration Report" was issued in September 2022. The report is structured into two parts—a "Facts & Data" section that summarizes various issues facing Japanese forests and an "Actions" section which provides simple explanations and examples of activities taken to address these issues in the Suntory Natural Water Sanctuary.

- [Download the Suntory Natural Water Sanctuary Biodiversity Restoration Report](#) 
- [For more information on the Suntory Natural Water Sanctuary, see Natural Water Sanctuary.](#)



Suntory's Peatland Water Sanctuary Initiative in Scotland

Suntory Group acknowledges the immeasurable amount of learning it has received from Scotland and scotch whisky, which has been utilized in the production of whisky in Japan. Today, Suntory owns several distilleries in Scotland, including the Bowmore and Laphroaig distilleries. In Scotland, whisky is often made with water that flows through moorlands, and the peat accumulated on the moorlands plays an important role in flavoring the malt, the raw material for whisky. Suntory's Peatland Water Sanctuary initiative started in November 2022 to protect these peatlands and conserve watersheds at various locations in Scotland. The initial peatland restoration project was begun on nearly 15ha near the Ardmore distillery in partnership with Forestry and Land Scotland, which owns the land, and the James Hutton Institute, which is assisting with the research, planning, and execution of the restoration. Restoration activities subsequently began on Islay and in northern Scotland, where peat was mined for scotch in the past, and in nature reserves in Airds Moss and the Oa, activities were launched in collaboration with the Royal Society for the Protection of Birds of Scotland. Additional activities are expected to launch, and Suntory Group aims to have restored sufficient peatlands by 2040 to equate to twice the volume of peat that Suntory Group harvests to make its scotch whiskies. The work will have a long-term positive impact on water retention and quality, and will also support carbon sequestration and biodiversity in Scotland's natural environment.



Recovery work has raised the water table of this peatland, and restoration of marshland vegetation is progressing



Ardmore Distillery

Raw Ingredients

As a beneficiary of nature's bounty, Suntory Group is committed to preserving biodiversity in the raw ingredient crops it uses for raw ingredients. Suntory Beverage & Food Great Britain and Ireland has been providing blackcurrant farmers with sustainable farming support since 2004. The company has established a biodiversity roadmap tailored to each farm and its surrounding habitat and is promoting ecosystem conservation for rivers and wetlands. In 2022, the company has shared the results from its Farm Stewardship Programme which aims to boost biodiversity on blackcurrant farms across the UK. Other efforts within the Group include adopting regenerative agriculture methods that help improve soil organism diversity such as the use of mulching at vineyards and start of pilot program for sourcing barley produced using regenerative agriculture practices.

- [Download the Farm Stewardship Programme Report](#) 
- [For more information, see Sustainable Procurement](#) .



Cover crops



Vineyard with grass mulch at Suntory Tominooka Winery

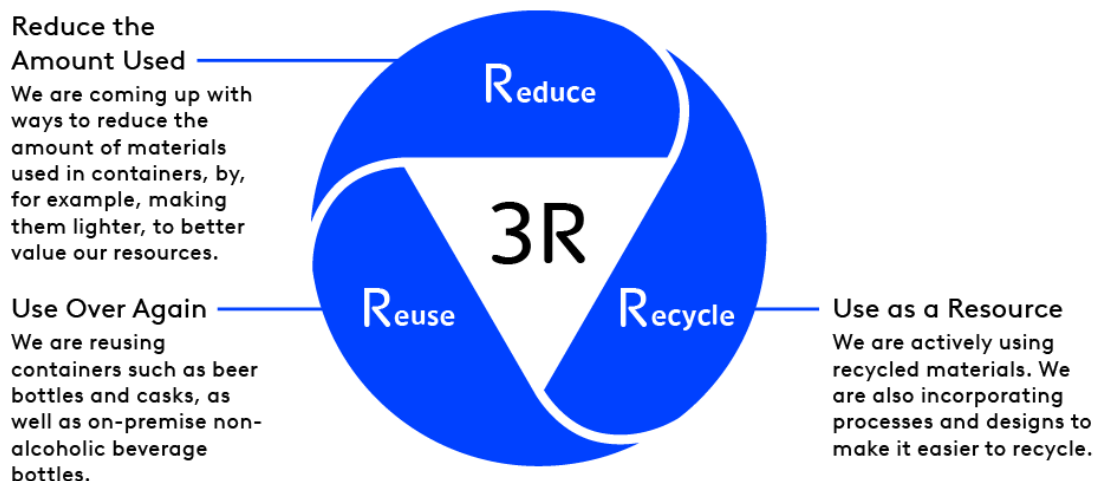


Farm Stewardship Programme Report

Containers and Packaging

In addition to ecological efforts in water and crops, Suntory Group aims to make effective use of limited natural resources by promoting the 3Rs (reduce, reuse, recycle), employing renewable resources, collaborating with diverse stakeholders to build efficient recycling systems, and working to reduce the environmental impact of our products throughout their lifecycles.

In regard to PET bottles specifically, Suntory Group has a unique 2R+B (Reduce/Recycle + Bio) strategy. We are pursuing the efficient use of resources by developing bottles with reduced resin content and enhanced use of bio-based materials and thereby replacing petroleum-derived materials with renewable materials as far as possible.



Concept of 3Rs in Containers and Packaging

2R+B*

Reduce

Reduce the amount used

Promotes reducing weight of containers as a pioneer of reducing weight of PET bottles

Recycle

Use as resource

Recycling as resources with technologies such as "BtoB" (bottle to bottle).

Bio

Bio-based material

Actively utilize Bio-based resin to avoid using petroleum-based resources

Sustainability × Usability

*2R+B is a registered trademark

2R+B Strategy

➤ For more information, see [Packaging & Resource Efficiency](#) .

Bird Conservation

Recognizing that wild birds are barometers of the environment, Suntory has advocated that protecting birds leads to protecting human beings and the natural environment and started its bird conservation activities in 1973. The company established the Suntory Fund for Bird Conservation in 1989 to promote environmental conservation by providing grants to various bird conservation activities. The Fund has granted a total of approximately 700 million Japanese yen to a total of 517 organizations as of 2024.



First Save the Birds!
Campaign newspaper ad



➤ For more information, see [Bird Conservation Activities](#) .

Bird Conservation Activities

Wild birds are said to be parameters of natural environment. This is because birds have wings and fly away when the environment deteriorates and return when it improves. Suntory Group, which is taking advantage of the rich blessings of nature, is committed to "Today Birds, Tomorrow Humans - Happiness that happens to birds today may make tomorrow's humans happy. Understanding that the wild bird protection is linked to the protection of humans and the natural environment, we began our involvement in bird conservation activities in 1973.

History of Suntory Bird Conservation Activities

Year of activity	Content
1973	<ul style="list-style-type: none"> - Start of Save the Birds! Campaign (May) - The first publication of a newspaper ad with an illustration of wild birds (received Asahi Advertising Award) - Established a bird sanctuary in the Hakushu Distillery (Yamanashi prefecture)
1989	<ul style="list-style-type: none"> - Foundation of the Suntory Fund for Bird Conservation
1990	<ul style="list-style-type: none"> - The 1st Fund Granting Ceremony of the public trust, Suntory Fund for Bird Conservation
1993	<ul style="list-style-type: none"> - Start of the Save 1000 Albatrosses! Campaign
2006	<ul style="list-style-type: none"> - Newly established Grant for Community Bird Activities to the Suntory Fund for Bird Conservation
2014	<ul style="list-style-type: none"> - Newly established Grant for Riparian Large Bird Conservation to the Suntory Fund for Bird Conservation
2016	<ul style="list-style-type: none"> - Received the Wood Pencil at the D&AD Awards 2016, the ADC Award at the 2016 ADC Awards and the monetary prize at the Design for Asia Awards (DFAA) for the Line of Life Project to build kites of birds with children in the hopes of returning storks to a habitat where they can live normally
2018	<ul style="list-style-type: none"> - Relevant businesses certified under Japan Committee for the United Nations Decade on Biodiversity (UNDB-J)
2021	<ul style="list-style-type: none"> - Supported "eBird Japan," the Japanese version of "eBird," the world's largest bird observation database.
2024	<ul style="list-style-type: none"> - The 35th Fund Granting Ceremony of the public trust, Suntory Fund for Bird Conservation (Total of ¥704.5 million from the 1st to 35st fund granting have been made to 517 organizations)



1st Save the Birds!
Campaign newspaper ad



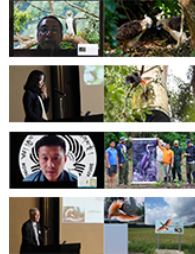
The Suntory Fund for Bird Conservation

As one of the activities commemorating the 90th anniversary of our founding, we enhanced bird conservation activities with the establishment of the Suntory Fund for Bird Conservation in 1989. As this initiative is designated to promote global environmental conservation through the protection of wild birds, funds are granted for bird protection activities both in Japan and overseas.

Over the 35 years since becoming a charitable trust in 1990, the Foundation has granted total of ¥704.5 million to 517 organizations up to 2024, making great achievements. The 2020 presentation ceremony was cancelled to avoid the risk of new coronavirus (Covid-19) infection; the 2021 and 2022 ceremonies were held online; In 2023, we also began connecting online with various locations and holding hybrid presentation ceremonies.



The 35th Fund Granting Ceremony of Public Trust Suntory Fund for Bird Conservation



Presentations on conservation activities from Japanese and international (online participation) grantees



The members of the "Grants for Community Bird Activities" category

The Hakushu Distillery Bird Sanctuary

We started bird conservation activities in 1973, and in the same year, as the first private company, we opened a wild bird sanctuary in the Hakushu Distillery in Yamanashi Prefecture.

Surrounded by rich forests and many clear streams, the Hakushu Distillery is a relay point of migration for wild birds. In the bird sanctuary, Suntory periodically conducts bird research with the advice of experts and uses the data as one of the guidelines for creating a better environment for birds and other living creatures.

> The Hakushu Distillery Bird Sanctuary



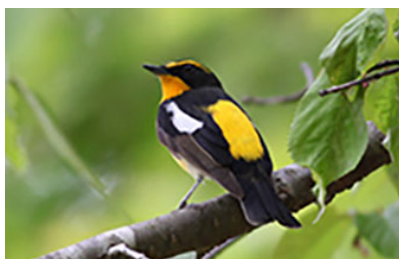
Blue-and-white Flycatcher



Ural Owl



Red-flanked Bluetail



Narcissus Flycatcher



Hanging boxes in the Bird Sanctuary

Communication

We are putting out a broad range of information through our websites and other tools to familiarize more people with these wild birds. On the Japanese Bird Encyclopedia website, anyone can enjoy learning about over 200 species of wild birds through illustrations with explanations, bird calls, and pictures.

The portal site "eBird Japan" (operated by Cornell University Lab of Ornithology and the Wild Bird Society of Japan), which provides access to the world's largest bird observation database of birdwatchers' records, and the bird identification app Merlin are tools that make it easy to enjoy birdwatching activities in Japan and overseas. Suntory is working to promote the use of these tools as the main sponsor.

We provide leaflets on how to easily distinguish the birds around you to help in bird watching.



Japanese Bird Encyclopedia website



The portal site "eBird Japan" (operated by Cornell University Lab of Ornithology and the Wild Bird Society of Japan)



Save the Birds Activity leaflets

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Disclosure Based on TNFD Recommendations

As a Company Sustained by the Gifts of Nature

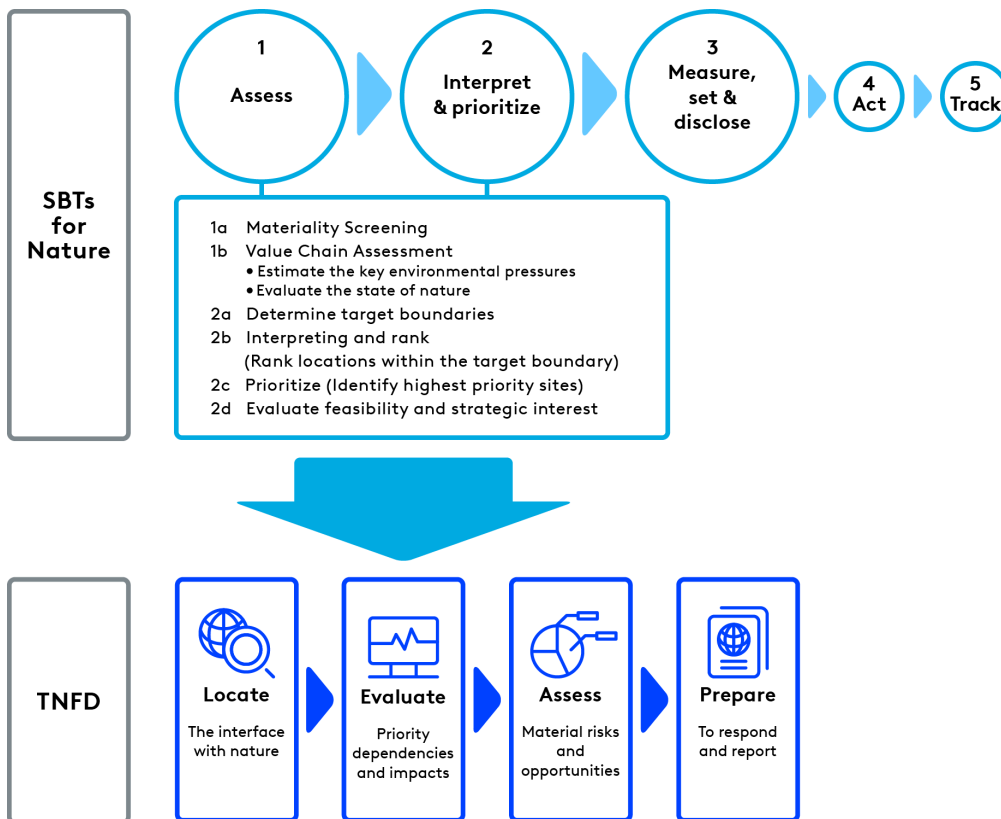
As a company that depends on water and agricultural crops, we believe it is our responsibility to protect the ecosystems where this value originates, including water resources and ingredient production regions. Comprehensive measures are essential to prompt appropriate action-taking for the deeply intertwined crises of climate change, biodiversity and water as a global multifaceted beverage company. For promoting to set science-based targets for nature and activities to achieve them, Suntory Group is participating in the program run by the Science Based Targets Network (SBTN) for piloting the target validation process in accordance with the SBTN guidance released in May 2023, being the only Japanese company among the 17 piloting companies*.

We have started pilot disclosure of the Taskforce on Nature-related Financial Disclosures (TNFD) based on assessments and progress made in the SBTN validation pilot. The TNFD framework uses the LEAP approach, consisting of the steps of Locate, Evaluate, Assess, and Prepare. The steps of Locate and Evaluate used the assessments produced in steps 1 and 2 of the SBTN validation pilot for direct operations and the upstream supply chain. For the Assess step, the direct operations (production sites) of the Alcoholic Beverage Business were assessed based on the findings from the Locate and Evaluate steps. The figure illustrates the relationship between the SBTN and the TNFD approaches.

Based on the progress of the SBTN validation pilot, going forward we will incorporate target setting, further assessment of risks and opportunities, and specific measures into our strategy with the goal of realizing a nature-positive world aligned with science-based global standards.

* In addition to Suntory Group, AB InBev, Bel, Carrefour, Corbion, Alpro (Danone Group), GSK, H&M Group, Hindustan Zinc Limited, Holcim Group, Kering, L'OCCITANE Group, LVMH, Nestlé, Neste Corporation, Tesco, and UPM were also selected

TNFD and SBTN Alignment on Target-Setting



Participation in the Taskforce on Nature-related Financial Disclosures (TNFD) Forum

Suntory Group is participating in the TNFD Forum, a global and multi-disciplinary consultative network of 400 institutional supporters who share the vision and mission of the TNFD and make themselves available to contribute to



1. Governance

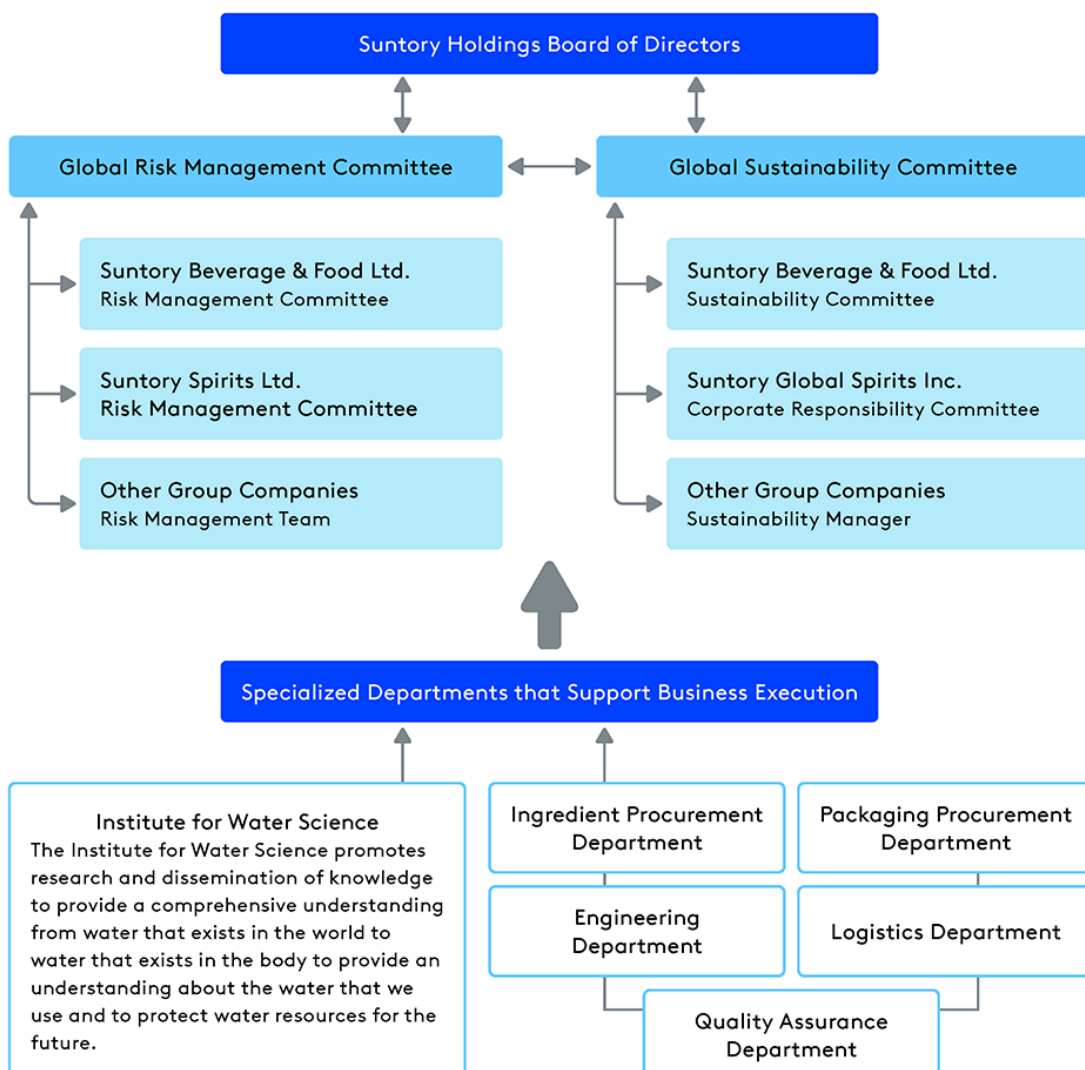
The Global Risk Management Committee (GRMC) conducts Group-wide risk management for Suntory Group. Based on the GRMC, operating companies establish a risk management committee or risk management team (ex.: the Risk Management Committee at Suntory Beverage & Food Ltd. (SBF), the Global Risk & Compliance Committee at Suntory Global Spirits Inc.(SGS) Inc. (BSI), and the Risk Management Teams at Suntory Spirits Ltd. and other operating companies). The GRMC meets four times a year and conducts activities including identifying risks and opportunities across the Suntory Group, implementing countermeasures, and developing the crisis management structure. Problems involving nature, such as those related to water and raw ingredients, are discussed in the GRMC as Group-wide material risks, and the status of addressing them is monitored.

The Global Sustainability Committee (GSC) discusses medium- to long-term strategy related to climate change and the seven themes set forth in the Suntory Group Sustainability Vision, including Water, Raw Ingredients, and Containers and Packaging. Operating companies have also established organizations to discuss strategy and initiatives at a more granular level (ex.: the Sustainability Committee at Suntory Beverage & Food Ltd., the Corporate Responsibility Committee at Suntory Global Spirits Inc.).

The GRMC and the GSC work together on an ongoing basis, and for important matters requiring decision-making, the Board of Directors holds further discussions as well as deliberates on and issues decisions. Reports are also made to the Board of Directors on a quarterly basis regarding strategy and its progress, risks and growth opportunities that involve nature, including those related to climate change. The Board of Directors also regularly sets up opportunities to receive advice on sustainability management, including workshops with the outside experts.

The CEO is responsible for matters involving climate change and nature, and the CSO is responsible for evaluating and managing nature-related risks and opportunities. Sustainability is included in targets set as part of performance evaluations that determine executive compensation and the like.

Organizational Chart



2. Strategy

For direct operations and the upstream supply chain, we assessed the impacts and dependencies on nature of our Group's business and set priorities based on the results. In this assessment, we used the tools and database recommended by the SBTN.

We focused on water use and water pollution as the materiality in the impacts of our business on nature, and then identified priority sites and analyzed risks and opportunities for the direct operations of the Alcoholic Beverage Business on a trial basis.

Impacts and Dependencies on Nature of Our Group's Business

The impacts and dependencies on nature of our Group's business were assessed for direct operations and the upstream supply chain. For direct operations, we selected activity classifications that applied to our business from the International Standard Industrial Classification of All Economic Activities (ISIC), and then categorized and defined the Suntory Group business activities to be assessed. We used the Materiality Screening Tool (MST) developed by the SBTN to gain a comprehensive understanding of the impacts on nature from our business activities. For the upstream supply chain, we used the MST to assess the raw ingredients used in our business. In addition, we identified raw ingredients with particularly significant impacts on nature using the High Impact Commodity List (HICL), which is a list of raw ingredients the SBTN considers as having significant impacts on nature. For dependencies on nature, we used the Exploring Natural Capital Opportunities, Risks and Exposure (ENCORE) online tool jointly developed by the Natural Capital Finance Alliance (NCFA) and the UN Environment Programme World Conservation Monitoring Centre (UNEP-WCSC) to gain a comprehensive understanding of the dependencies.

Impacts on Nature

High materiality

Business	Supply chain		Land/Water/Sea use change			Resource Use		Climate change	Pollution				Invasives and Other		
			Terrestrial use	Freshwater use	Marine use	Water use	Other use	GHG emissions	non ghg airpollutants*	Water pollutants	Soil pollutants	Solid waste*	disturbances*	Biological alterations*	
Non-alcoholic beverage	Upstream	cradle													
		processing													
Alcoholic beverages	Direct operations	manufacturing													
		cradle													
Other	Upstream	processing													
		manufacturing													

* As these items are outside the scope of the SBTN, they were not included in the assessment of local conditions, the identification of priority locations and the risk/opportunity assessment.

Dependencies on Nature

High materiality

Business	Supply chain		Direct Physical Input					Enables Production Process					Mitigates Direct Impacts				Protection from Disruption						
			1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21
			Animal-based energy	Fibres and other materials	Genetic materials	Ground water	Surface water	Maintain nursery habitats	Pollination	Soil quality	Ventilation	Water flow maintenance	Water quality	Bio-remediation	Dilution by atmosphere and ecosystems	Filtration	Mediation of sensory impacts	Buffering and attenuation of mass flows	Climate regulation	Disease control	Flood and storm protection	Mass stabilisation and erosion control	Pest control
Non-alcoholic beverage	Upstream	cradle																					
		processing																					
Alcoholic beverages	Direct operations	manufacturing																					
		cradle																					
Other	Upstream	processing																					
		manufacturing																					

For the business activities in our direct operations, water use and water pollutants in wastewater were identified as likely having impacts on nature overall. For business activities in the upstream supply chain (cultivation of barley, corn, sugar cane and other non-perennial crops, poultry rearing, iron ore mining, etc.), land use and land use change, water use, and discharge of water and soil pollutants were identified as likely having impacts on nature overall. Regarding dependencies on

nature, we identified a high degree of dependence on groundwater and surface water in our direct operations. In the upstream supply chain, in addition to groundwater and surface water, we identified a high degree of dependence on pollination services, maintenance of soil fertility and the health of the water cycle, water quality, prevention of soil erosion and pests, and natural processes including those mitigating the impact of natural disasters.

Identification of Priority Sites

As part of identifying priority sites in our direct operations, we prioritized sites in terms of water use and water pollutants. In this prioritization, we ranked each site considering both the Pressure indicators calculated from the water use or the water pollutants in wastewater and State of Nature indicators (the state of water availability or the water pollution that our business is dependent on) as well as the State of Biodiversity. In addition, we assessed the area in a 20-km radius around the site using the Integrated Biodiversity Assessment Tool (IBAT). Of the sites near protected areas or Key Biodiversity Areas, those in the top 10% or in the top 10 of the ranking were identified as priority sites.

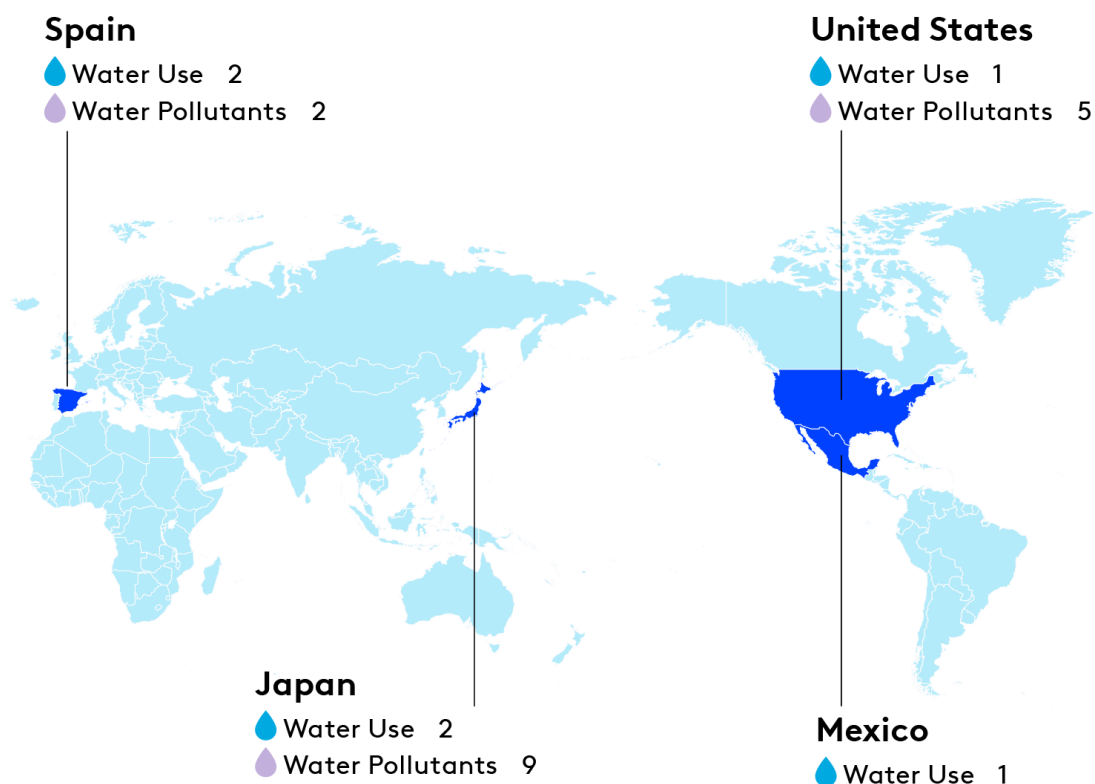
Number of High-Priority Site

* Only production sites selected (not including offices)

Pressure Indicators	Non-Alcoholic Beverage	Alcoholic Beverage Business	Other
Water Use (Surface water use/Ground water use)	13	6	0
Water Pollutants (N&P loading)	—	16	3

Among the Suntory Group businesses, we analyzed risks and opportunities for production sites in the Alcoholic Beverage Business, including sites with a high degree of importance and priority in terms of both water availability and water pollution.

Number of Priority Sites by Region in the Alcoholic Beverage Business



Identification of Risks and Opportunities

Based on the results of identifying priority sites as well as the impacts and dependencies on nature, we conducted a qualitative assessment of risks and opportunities in the Alcoholic Beverage Business using the two axes of risk occurrence potential and impacts on our business.

Risk Analysis Results

1. Identify major risks			2. Impacts of each risk/opportunity on business	
Types of Risk		Risk item	Impacts and/or dependencies	Anticipated impacts on business
Physical risk	Chronic	Risk of deteriorating quality of water intake	Water quality	<ul style="list-style-type: none"> Impacts on product quality from the quality degradation of water, the most important raw ingredient for Suntory Group Increased treatment costs
Transition risk	Reputation	Risk of society deeming company water measures are insufficient, lowering brand value	Water quantity/quality	<ul style="list-style-type: none"> Reduced sales from a more negative company image
	Reputation	Risk of conflict with local residents over water intake and wastewater impacting business	Water quantity/quality	<ul style="list-style-type: none"> Increased costs from additional surveys and facilities investment Impacts on sales and business continuity from impacts on operations

Regarding risks, impacts on product quality and increased treatment costs from quality degradation of water, the most important raw ingredient for Suntory Group, are anticipated. Furthermore, business impacts from lower sales from a more negative company image and conflicts with local residents are also anticipated.

Regarding opportunities, reduced costs related to water intake and wastewater from improvements in water use efficiency are anticipated. Continuing and expanding water source conservation activities and Suntory Mizuiku — Education Program for Nature and Water, as well as externally communicating information on the Suntory Group's approach to water, are expected to improve brand value, leading in turn to increased sales.

3. Risk and Opportunity Management

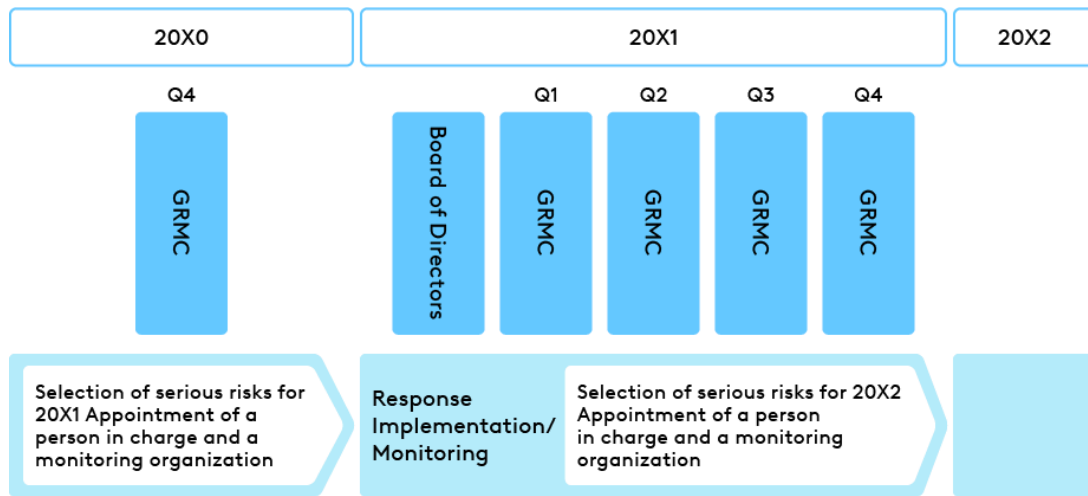
Risk in the Suntory Group is defined as current and future uncertainty with the potential to impact the execution of business strategy and achievement of business targets. Identification of material risks and opportunities as well as their evaluation, including those related to nature such as water resources across the Group, are conducted through the Global Risk Management Committee (GRMC) and the risk management committees and risk management teams established at operating companies. The risks for which Suntory Group needs to prioritize taking action are identified and countermeasures examined, with revisions to them made annually.

Risk Management System



Management Methodology for Identified Risks

For risks whose mitigation is of particularly high priority, the person responsible and the monitoring organization are designated and risk mitigation measures are implemented. The status of risk mitigation is reported to and discussed by the GRMC. The material risks for the following fiscal year are selected based on the results of risk mitigation as part of conducting the PDCA cycle of identification, evaluation, taking action, and monitoring.



4. Targets and Indicators

For climate change and water, which are anticipated to have major impacts on the Suntory Group's business, we have established the Environmental Targets toward 2030 as medium-term targets and the Environmental Vision toward 2050 as our long-term vision, and are taking actions accordingly.

Targets and Progress for Water

Environmental Vision toward 2050



Water Sustainability

- Reduce the water intensity of production at our owned plants*¹ by **50%***² globally.
- Replenish more than 100% of water used at all of our owned plants globally through conservation of the surrounding ecosystem.
- Achieve sustainable water use for all key ingredients.
- Share the Sustainable Water Philosophy to the communities where our business operates.



*1 Owned plants that manufactures finished products and excludes plants for packaging and ingredients

*2 Reduction of water intensity of production based on 2015 baseline year

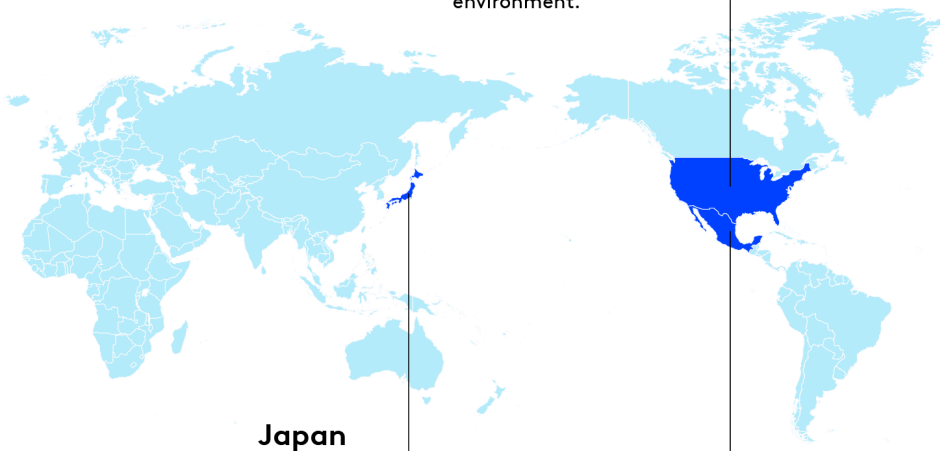
*3 Coffee, barley, grapes

➤ [For more information on water-related achievements, see the List of achievements data.](#)

Water Resource Cultivation Initiatives around the World

United States of America

- Maker's Mark Natural Water Sanctuary(13 hectares)
- Jim Beam® Natural Water Sanctuary Alliance at Bernheim Arboretum & Research Forest (6,300 hectares)
Water conservation activities around our bourbon distilleries and the improvement of biodiversity in forests to preserve the natural environment.



Japan

- Natural Water Sanctuary
12,000 hectares of forest in 22 locations across Japan, recharging twice the volume of water taken from underground at its owned plants.

Mexico

- Charco Bendito Project
Casa Sauza®'s collaborative effort with other Tequila companies to restore and protect the Santiago River Basin

<Japan> Natural Water Sanctuary

In order to maintain the safety and reliability of groundwater as well as sustainability, we conduct Natural Water Sanctuary Initiative to recharge more than twice the amount of groundwater withdrawn by our plants in Japan in the forest areas at the source of our plants.

Forests that cultivate quality groundwater are rich in biodiversity. The plant and animal life living in forests will also change if the primary functions of the forest can be revitalized. We conduct systematic management through continuous ecosystem monitoring of animals, plants and insects including birds at Natural Water Sanctuary.

Focusing on wild birds, which are said to serve as a barometer of a given environment, we conduct wild bird surveys by specialists every year based on the idea that it is possible to comprehensively grasp the changes in the entire ecosystem that supports them. We are conducting a project to support nest building and rearing of chicks by eagles and hawks, which are top predators in ecosystems at all of the Natural Water Sanctuary in Japan. The objective is to advance the development of forests rich with biodiversity by taking a bird's perspective of Natural Water Sanctuary.

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Pollution Prevention and Chemical Substance Management

▼ Policies and Our Approach | ▼ Our Initiatives

Policies and Our Approach

Many of the products handled by Suntory Group are made mainly from agricultural products and water, the risk of environmental pollution caused by chemical substances is considered to be small and compared to other industries. However, the production process is not free from the risk of polluting the surrounding environment, as exhaust gas is generated from boiler combustion and chemicals are used to clean and sterilize equipment. Therefore, we assume all kinds of abnormal and emergency situations, assess the risks that may arise, and take measures to deal with them.

Our Initiatives

Preventing Air Pollution

Suntory Group strives to reduce SOx and NOx emissions by switching to gas fuel that does not contain sulfur and adopting low NOx burners. We have set voluntary standards that are stricter than legal limits and control air pollutants in exhaust gas from boilers.

▶ [Please see the Data List for NOx and SOx emission results.](#)

Preventing Water Pollution

Wastewater management is conducted at each factory by setting voluntary standards that are stricter than legal limits.

Preventing Soil Pollution

Suntory Group's plants use chemical substances for cleaning equipment and other purposes. These substances are strictly controlled to prevent leakage. However, in the unlikely event of a leakage of cleaning agents or chemicals, each plant has installed dikes around chemical tanks and conducts periodic inspections to prevent soil contamination.

Measures for Alcohol Evaporation

Some amount of alcohol vaporizes from the cask during the storage of whisky. We place collection equipment to prevent any evaporated alcohol from escaping the plant. In addition, regular monitoring (concentration measurement, etc.) is done to confirm if alcohol evaporation can be reduced.

Chemical Substance Management

Suntory Group manages chemical substances in accordance with Pollutant Release and Transfer Register (PRTR) Law, Poisonous and Deleterious Substances Control Act, Fire Service Act and other related laws.

Waste Management

We promote to introduce an electronic manifest system for compliance with waste law and enhance information control of waste. In addition, we continue to implement training programs for production sites, sales offices, cultural sites, head office functions, and group companies to improve their knowledge and skills in waste management through methods such as group training, on-site visits, and role-playing to ensure the proper disposal of waste. We call such a lecture as “Waste management seminar” and “Surveillance seminar at waste treatment facility” to skill them up the knowledge and the audit ability on waste management. We continue initiatives for thorough implementation of proper disposal of waste.

Management of PCB Disposal

We store PCB wastes appropriately and report their storage status to the local government based on “Law Concerning Special Measures Against PCB Waste.” We have registered to Japan Environmental Storage & Safety Corporation (JESCO) as a subcontractor for the disposal of PCB and began disposal of equipment that includes PCB from 2007. Status of the use and storage of equipment that includes PCB is as follows.

Quantity of equipment that uses PCB (as of December 2023)

	Stored	Used	Total owned
Capacitor	1	0	1
Transformer	5	0	5
Stabilizer for lighting device	0	0	0

Claims, Accidents and Lawsuits

There were no serious accidents or lawsuits related to the environment in 2023.