



ASAHI GROUP ENVIRONMENTAL REPORT

October 2021

Asahi

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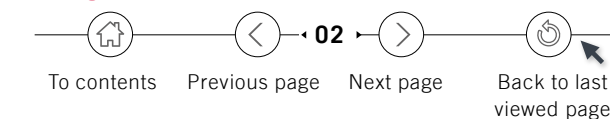
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Editorial Policy

This report was created as an engagement tool for investors and other stakeholders. It supplements the environmental side of our *Integrated Report 2020* by disclosing policies, strategies, activities, and results for initiatives on the theme of "Environment," which has been identified alongside "Communities" as the most globally important of the Asahi Group's material issues. Within the report, emphasis is placed on reporting the Asahi Group's approach to the environment as we strive to live up to the Asahi Group Philosophy, including our proactive stance on initiatives and the connections between specific Group initiatives based on this. More details about the full range of our environmental initiatives can be found in the comprehensive disclosure on the "Sustainability" page of the Asahi Group Holdings, Ltd. website.

The report's structure is informed by the four key objectives of the Asahi Group Environmental Vision 2050 based on our "Neutral and Plus" concept. It presents the Group's initiatives in response to risks and opportunities identified for business activities in terms of social issues such as climate change, abnormal weather, and waste, chiefly focusing on initiatives to increase environmental value through co-creation with stakeholders and initiatives to reduce the environmental burden at each stage in the value chain.

Report Period Covered

January 1, 2020–December 31, 2020
 (including some information outside this period)

Published

October 2021

Scope of Report

Asahi Group Holdings, Ltd. and Group companies
 For boundaries on each type of data, see "Scope of Report" (p. 66). ▶▶▶

Information Disclosure Scheme



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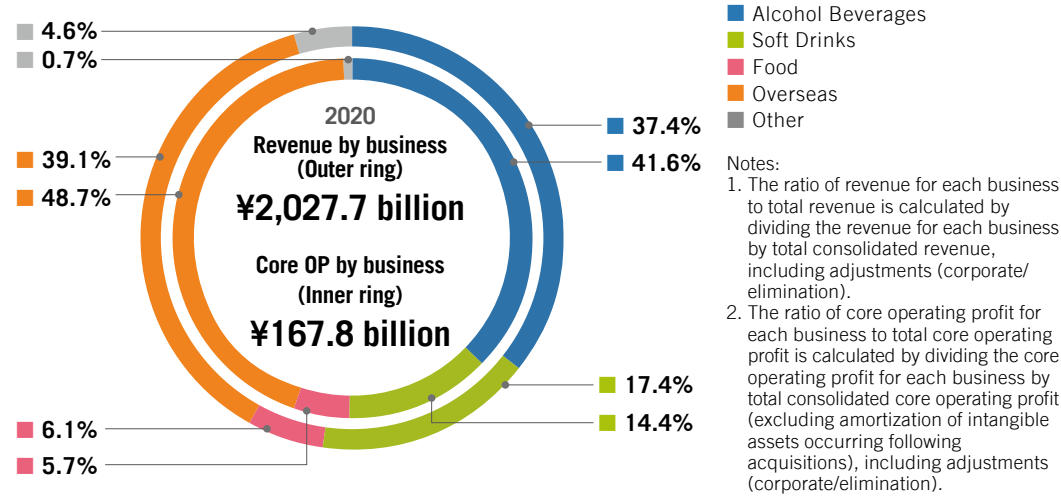
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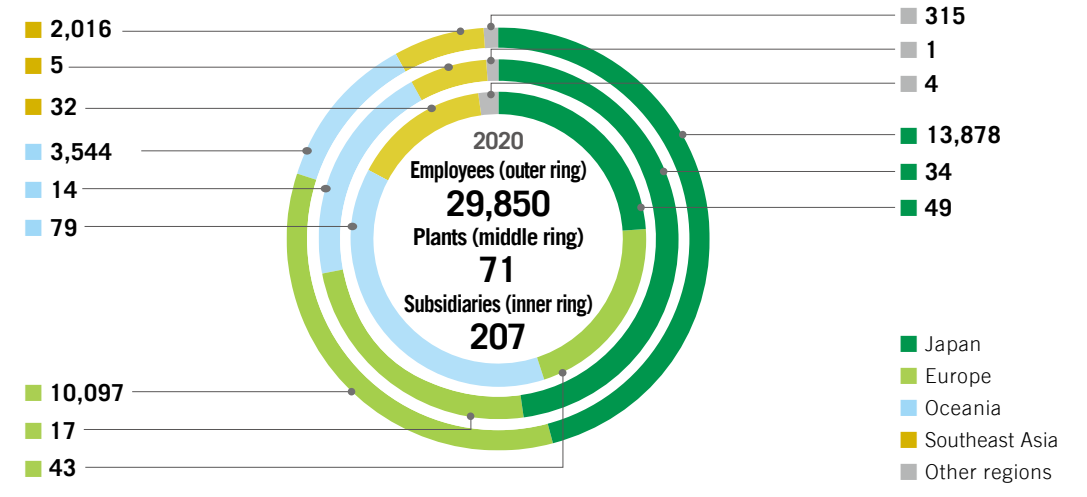
Alcohol Beverages Business

As the Group's largest cash cow business, the Alcohol Beverages Business offers a comprehensive lineup of alcohol beverages, starting with beer-type beverages. In this business, we aim to establish a position as the leader in the domestic alcohol industry through the cultivation of strong brands in each product category and the strengthening of proposals for new value through innovation.



Food Business

Centered on Asahi Group Foods, Ltd., the Food Business manufactures and sells confectionery, health foods, supplements, milk products for infants and baby food, food and other products for nursing care, freeze-dried foods, and raw materials for food products. In this business, we are working to establish a foundation for the next stage of growth by leveraging our core brands. Through this effort, we will strengthen proposals for new value in the form of "deliciousness with added value" in line with diversifying consumer needs and values.



Soft Drinks Business

Centered on Asahi Soft Drinks Co., Ltd., the Soft Drinks Business offers such products as *MITSUYA CIDER*, *WILKINSON*, *CALPIS*, *WONDA*, *Asahi JUROKUCHA*, and *Asahi OISHII MIZU*. Through this business, we aim to become an industry-leading company through efforts to enhance the intrinsic value of our products focused on core brands, including 100-year-old brands that originated in Japan, and establish a foundation for future growth.



Overseas Business

The Overseas Business is making efforts to establish a growth foundation in Europe, Oceania, Southeast Asia, and other regions. In this business, we are working to enhance our product portfolio centered on the core brands in each region. In addition, we are expanding cross-selling initiatives that leverage the brands and know-how we have cultivated to date. In these ways, the Overseas Business will drive the sustainable growth of the Group.



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Enabling the Asahi Group to Grow Together with Society



Atsushi KATSUKI

President and CEO, Representative Director

Placing sustainability at the core of our management, we will seek to become a corporate group that grows together with society and in doing so endeavor to contribute to ensuring a sustainable and prosperous society.

▶ Toward the Integration of Sustainability in Management

The Group's business uses the blessings of nature for its offerings and therefore, we earn the trust of our stakeholders—and only through with that trust can we serve our social role. To become a corporate group that will be valued highly by future society, it is imperative that we place sustainability at the core of our management and create business models under which the resolution of social issues provides a source for profits. With this aim in mind, in 2020 we updated our material issues to encompass the “Environment,” “People,” “Communities,” “Health,” and “Responsible Drinking” and are strengthening our initiatives in these areas.

We recognize the impact our business has on the environment and society as a whole. Therefore, we will address these issues head-on, through deeply integrating sustainability-related considerations into our management approach, and into each business, division, and function, to promote sustainable business growth. This is what the integration of sustainability in management will entail. Given the heightening interest of customers worldwide in sustainability issues, this business model can also lead to new business opportunities.

While steadily working to mitigate society's sustainability risks, the Asahi Group will also tap into emerging opportunities to achieve new stages of growth.

▶ Achieving Asahi Group Environmental Vision 2050

Our Asahi Group Environmental Vision 2050 calls for environmentally sustainable approaches to achieving business growth. We not only “aim to achieve zero environmental impact in our business activities” and remain environmentally *Neutral* by the year 2050 but also to become a *Plus* for society as we “utilize the Group's proprietary technologies to create more environmental value in society.”

To remain *Neutral*, we have established Asahi Carbon Zero with the goal of reducing CO₂ emissions in Scope 1, 2, and 3 to zero by 2050. Initiatives toward this goal are being advanced throughout the Group.

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As part of these efforts, we are enhancing our climate change-related disclosures, announcing in 2019 our endorsement of the recommendations of the Task Force on Climate-related Financial Disclosures (TCFD). We have conducted a scenario analysis every year since then to fully evaluate risks and opportunities and to clarify the impact of climate change on our business.

To contribute to the sustainable use of water, agricultural materials, containers, packaging, and other resources, we are reducing water usage, conducting surveys on human rights risks and environmental risks for agricultural products and production areas, and promoting the “3R (reduce, reuse, recycle) + Innovation” strategy to address the issue of plastic pollution throughout the value chain.

As for becoming a Plus for society, we are utilizing the Group's proprietary technologies to make a positive impact on society. To take an example, we are developing new uses for the by-products of the manufacturing process by applying our broad knowledge of microbe and fermentation technologies to help resolve food-related issues and contribute to the creation of a circular economy.

Resolving Social Issues Through Building Value Together with Our Stakeholders

“Building value together with all our stakeholders” is the core principle cited in our Asahi Group Philosophy (AGP) and is an integral element of our efforts to achieve the goals of Asahi Group Environmental Vision 2050.

One manifestation of this principle is the development of technologies with partners in different industries to generate power from fuel cells using biomethane gas. The Asahi Group will not seek patents for these original technologies, believing that promising new ideas that can mitigate social challenges and promote sustainability should be widely shared with society. Only by working together as one can we meet the lofty goals we have set to combat climate change.

We have a keen interest in ethical consumption trends, the marketing of unlabeled bottle products by Asahi Soft Drinks Co., Ltd. being one example of our pioneering efforts in response to consumer concerns. Reducing plastic packaging is not intended as a public relations ploy; we wish to coordinate our efforts with other beverage makers to expand the market for environmentally friendly products and build value together with customers. Ideally, we hope to win over customers on the strength of our products while steadily implementing such measures as shifting to eco-friendly materials.

Looking to the Future

Amid the rapid changes that are occurring in modern society, we will establish high-aiming targets with an accurate understanding of these changes and take on the challenge of transforming ourselves as an organization. To do so will require painstaking efforts, but we believe that pursuing this challenge will provide us with an opportunity for growth and enable us to pave the way for creating an even better society and a brighter future. Placing sustainability at the core of our management, we will seek to become a corporate group that grows together with society and in doing so endeavor to contribute to ensuring a sustainable and prosperous society.

Placing sustainability at the core of our management, we will aspire to a new stage that leads to business growth.



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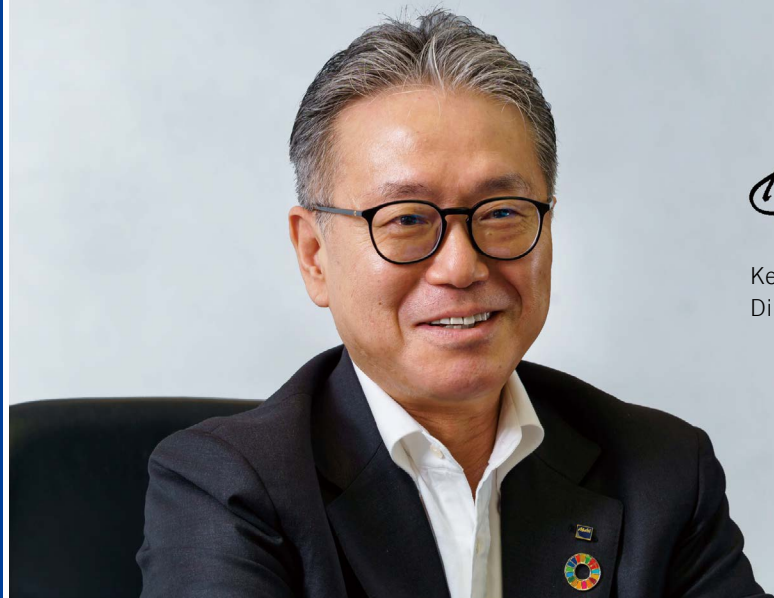
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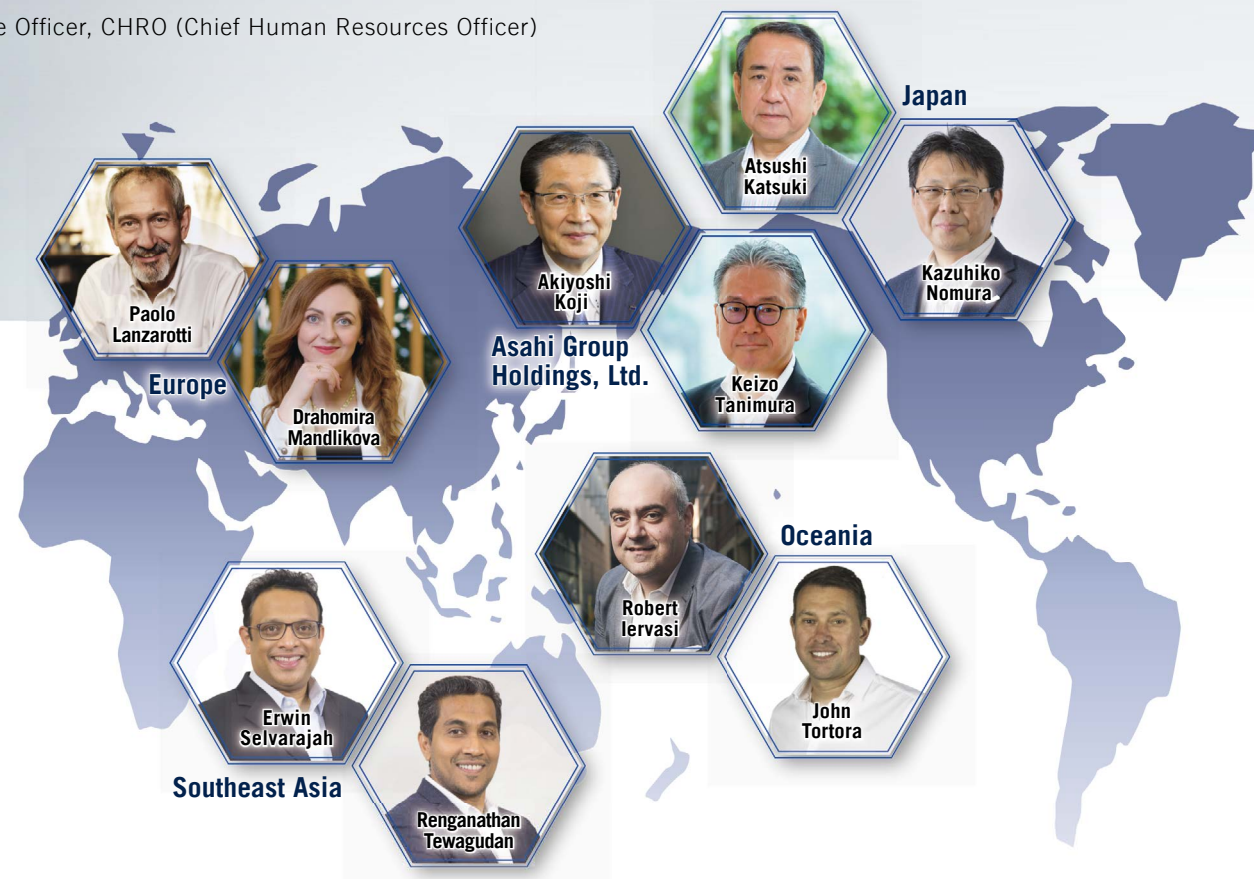
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Strengthening Global Ties to Preserve the Blessings of Nature for Future Generations



Keizo TANIMURA
Director and Executive Officer, CHRO (Chief Human Resources Officer)



Implementing Sustainability Management Through the Global Sustainability Committee

The Global Sustainability Committee was established in 2020 as the chief decision-making body in the execution of the Asahi Group's sustainability policy. It represents the Group's desire to accelerate the integration of sustainability in management.

The Global Sustainability Committee is chaired by the CEO of Asahi Group Holdings, Ltd., and its members include the Sustainability Director and the heads of relevant departments, as well as the CEOs and Sustainability Directors of the Regional Headquarters (RHQ) in Japan, Europe, Oceania, and Southeast Asia.

The committee discusses the policies and strategies to promote sustainability as an integral part of our business activities and reports to the Board of Directors. During the course of the year since the committee's launch, sustainability has become a more visible component of the cycle of supervision and execution in corporate governance.

Our Medium-Term Management Policy promotes "Glocal (global and local) Value Creation Management" whereby the regions and divisions with the best track record in a particular field lead our Group on the basis of their best practices. The sharing of such practices among committee members will facilitate improvements across the Asahi Group. This, we believe, is one of our key management strengths.

Major Members of the Global Sustainability Committee (as of December 2020)

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■ Steps to Accelerate the Realization of Asahi Carbon Zero

One example of a Group-wide effort to leverage such strengths is an initiative called Asahi Carbon Zero (announced in 2018) aimed at achieving zero CO₂ emissions by 2050. Revision of the interim target for Asahi Carbon Zero (30% reductions in Scope 1 and Scope 2 by 2030 compared with 2015) was one of the items discussed at the first meeting of the Global Sustainability Committee.

Representatives from Europe and Oceania, where reduction standards tend to be higher, noted that the 2050 goal would be difficult to reach simply by setting targets that were realistically achievable and argued we should work as one to pursue more ambitious objectives. In the end, the committee resolved to significantly raise the interim target to 50% compared with 2019, agreeing on the need to raise the interim target to ensure that we will be able to achieve our ultimate goals, given the constantly changing challenges the environment presents. Achieving our goals earlier would enable us to respond promptly to social change and make us better prepared for the future. The frank discussions among the members of the committee and the openness with which divergent views were embraced allowed us to make decisions that were truly meaningful.

To increase the likelihood of achieving the revised interim target for Asahi Carbon Zero, we also decided on such important new initiatives as obtaining certification from the Science

Based Targets (SBT) initiative for the 1.5°C Target for the Scope 1 and 2 target by 2030 and becoming the first Japanese beverage company to participate in the RE100 initiative. Joining RE100 communicates both internally and externally our Group's clear intention to expand the introduction of renewable energy, enabling us to share our goals with employees in every region. The response from outside the company has also been tremendous; we have received new proposals for renewable energy-related technologies, for example, and are capitalizing on new business opportunities. We believe that building such networks is of utmost importance if our society and planet are to come together as one in realizing a sustainable society.

■ Further Efforts to Achieve Sustainability

We hope to work closely with our stakeholders in advancing the Asahi Group's efforts to achieve sustainability. This means we have a responsibility to clearly indicate to stakeholders our specific goals and the anticipated impact of our sustainability initiatives. Toward that end, we will need to effectively implement the PDCA cycle.

Sustainability is a goal not merely for ourselves but also for all our stakeholders. We hope that the steps we are taking today will enable future generations to fully enjoy the blessings of nature.

We hope to work closely with our stakeholders in advancing the Asahi Group's efforts to achieve sustainability.



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Policy and Strategy

Sustainability at the Asahi Group

The Asahi Group aims for the complete integration of sustainability within its management. Guided by that aim, in 2020 the Group completely renewed its sustainability policies, vision, material issues, and promotion structure. With sustainability playing a core role in its management, the Group will help realize a sustainable society along with corporate growth.

Approach to Sustainability

In order to make progress toward the realization of the Asahi Group Philosophy (AGP), the Asahi Group promotes sustainability through an approach founded on the Asahi Group Sustainability Principles. The future we hope to achieve through sustainability promotion is set forth in the Asahi Group Sustainability Vision.

Asahi Group Sustainability Principles

1. The Asahi Group is striving to realize the tastiness of products and services that exceed consumer expectations, using the blessings of nature. We preserve finite nature to hand down the important blessings of nature to future generations.
2. The Asahi Group is striving to bring more fun to life through its products and services. We build a sustainable society to allow a better life to be inherited.

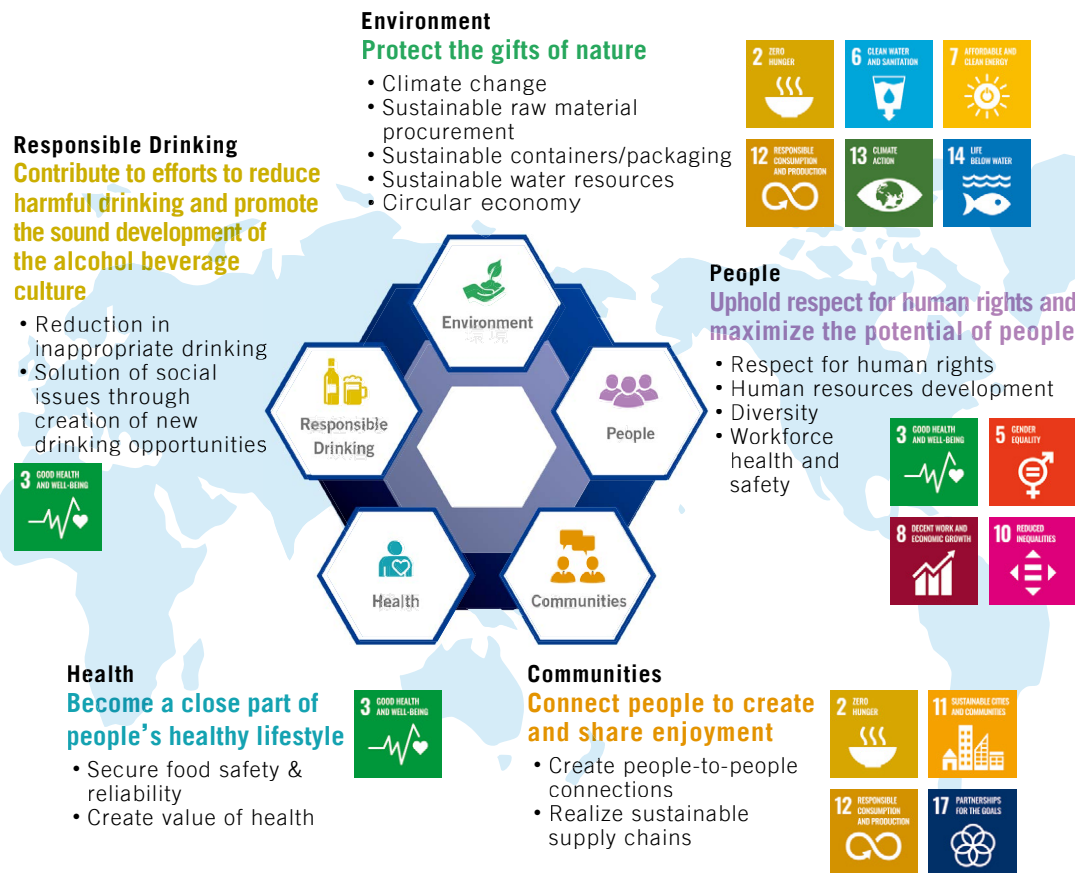
Asahi Group Sustainability Vision

Based on the Sustainability Principles, we will strive to create values toward a better future in all regions where we operate by incorporating "Environment," "People," "Communities," "Health," and "Responsible drinking" into our corporate strategy. Through these initiatives, we will continue to take on challenges and innovation to contribute to achieving the United Nations Sustainable Development Goals (SDGs).

Material Issues at the Asahi Group

The Asahi Group is moving forward with sustainability activities around five material issues and 15 activity themes. Among the five material issues, we believe that the highest priority should globally be given to two: "Environment" and "Community."

By contributing through business activities to the resolution of the social issues in the areas we have identified as material issues, and progressing toward our vision of the future, we will realize the AGP.



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Based on the Asahi Group Philosophy, the Asahi Group has established the Asahi Group Environmental Principles, which are to be followed by all employees in the Group as it aims to proactively address environmental issues. The Group has also formulated Asahi Group Environmental Vision 2050 to provide concrete goals toward the realization of a sustainable society, and promotes initiatives accordingly.

Environmental Basic Principles

The Asahi Group Environmental Principles define the attitudes to the environment held by the Asahi Group as a corporate group that creates most of its products with blessings of nature. All employees in the Asahi Group are to follow these principles, which are aimed at addressing environmental issues proactively.

Asahi Group Environmental Principles

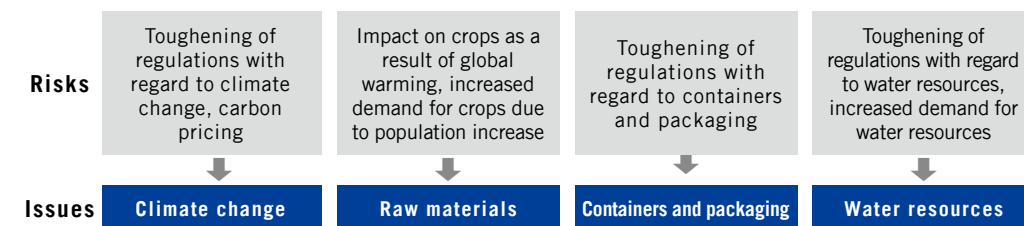
At the Asahi Group, we recognize that water, agricultural products and other "gifts from nature" are essential for us to carry out our business activities. We take responsibility for preserving the environment for the future, so as to enable us to consistently deliver on our great taste promise, pursuing the excellence in quality. Not only is the Asahi Group endeavoring to reduce the burden on the environment, we are also developing innovative initiatives to create a positive cycle that can actually enhance the environment. We will continue working toward the realization of a sustainable society hand in hand with business growth.

1. We shall comply with environmental laws and regulations in each country and region.
2. We will reduce the environmental burden, and take action toward continuous improvements including the creation of a management system.
3. We will endeavor to be more efficient in the use of the resources needed for our business activities, including energy, water and raw materials, and will work toward suppression of greenhouse gas emissions and waste, prevention of pollution and protection of the environment.
4. We will take action to reduce the environmental burden throughout the value chain.
5. We will endeavor for proactive communication with stakeholders through appropriate information disclosure, working to increase transparency and reliability.

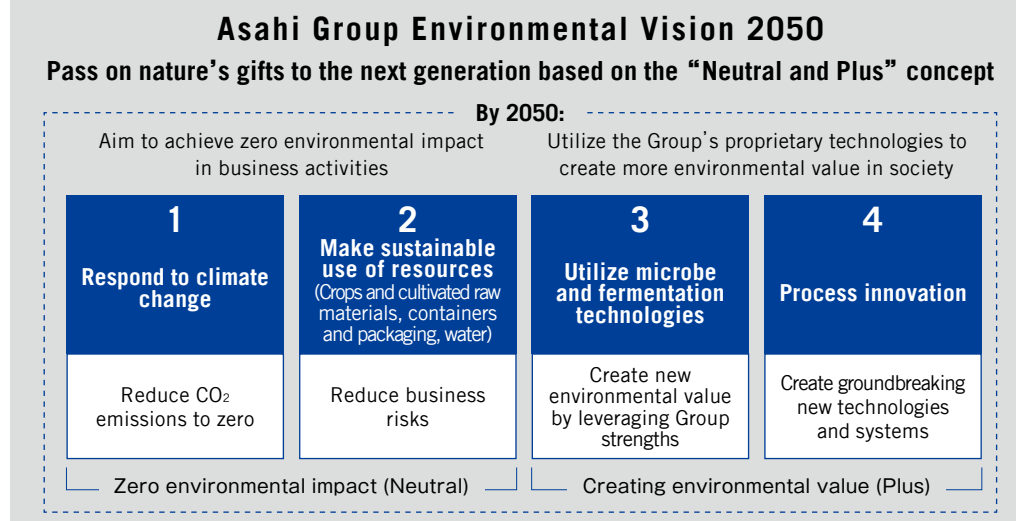
Asahi Group Environmental Vision 2050

The Asahi Group aims to achieve zero environmental impact (Neutral) in its business activities by 2050, and to leverage its proprietary technologies to create more environmental value in society (Plus). In this way, we will work toward the realization of a sustainable society hand in hand with the growth of our business operations.

Environmental Risks and Issues to Be Tackled



Asahi Group Environmental Vision 2050: Overview



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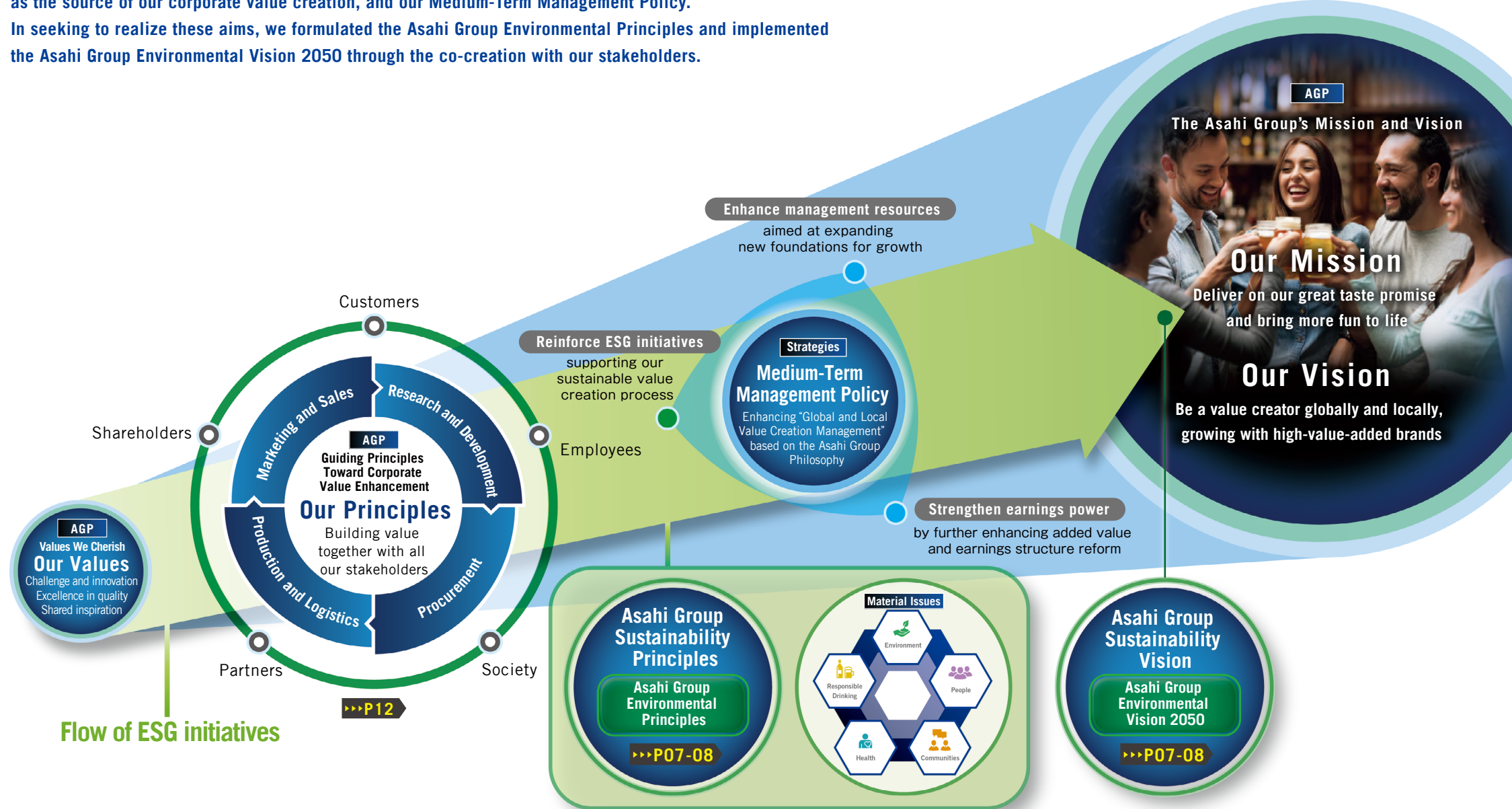
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Positioning the Environment and Sustainability Within the Value Creation Process

Under the Asahi Group Philosophy (AGP), we laid out Our Mission and Our Vision, which are goals that the Asahi Group should realize in the future.

To reach these goals, we will steadily implement our value creation process, which establishes Our Values and Our Principles—the other two parts of the AGP—as the source of our corporate value creation, and our Medium-Term Management Policy.

In seeking to realize these aims, we formulated the Asahi Group Environmental Principles and implemented the Asahi Group Environmental Vision 2050 through the co-creation with our stakeholders.



Flow of ESG initiatives

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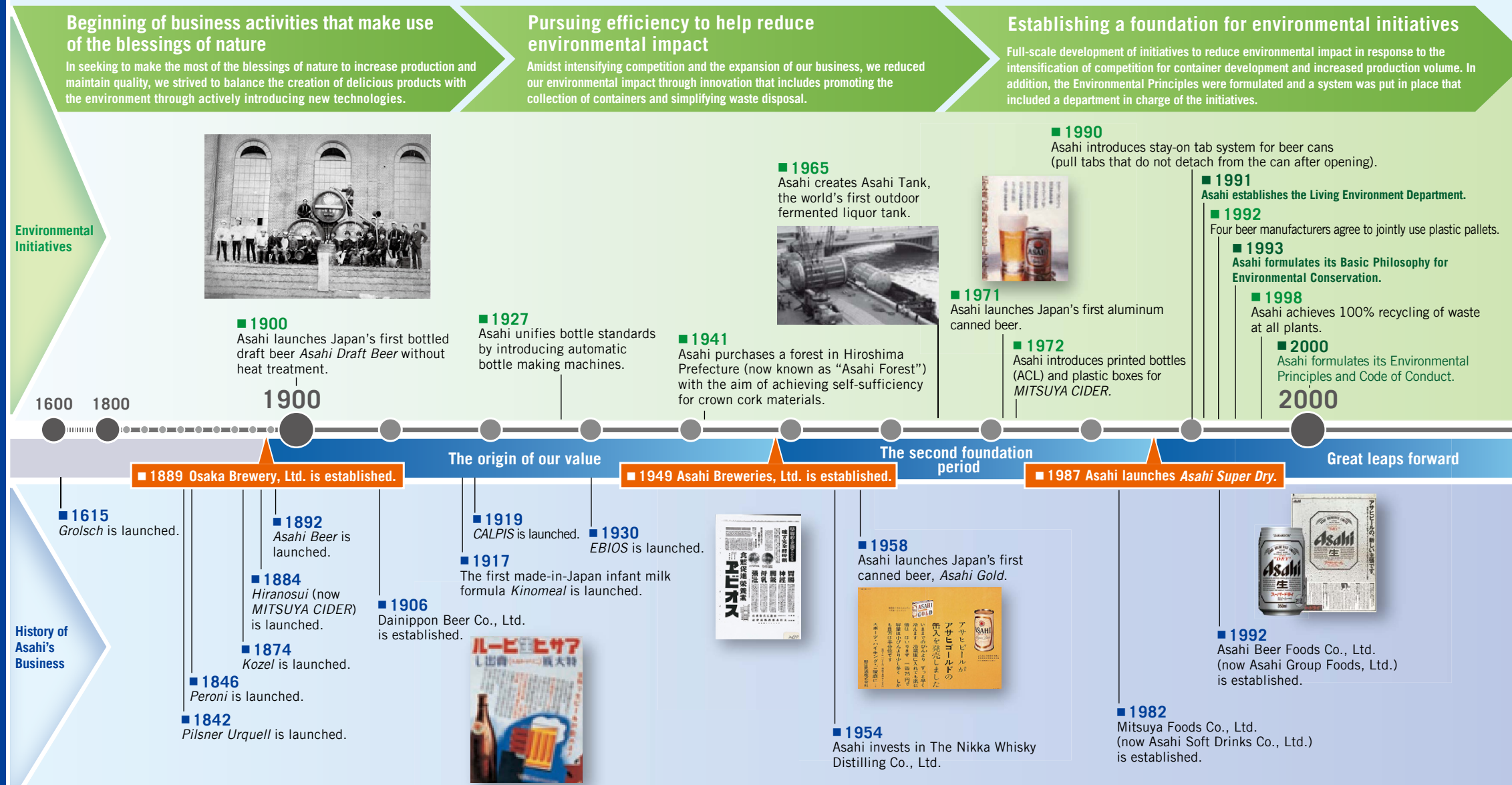
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History of Environmental Value Creation

Since its establishment, the Asahi Group has strived to balance the provision of delicious products with environment through efforts that include promoting initiatives to reduce environmental impact while making the most of the blessings of nature.

Moving forward, we will leverage our wealth of experience to pioneer environmental initiatives and create environmental value through co-creation with our stakeholders.



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Incorporating next-generation environmental technologies

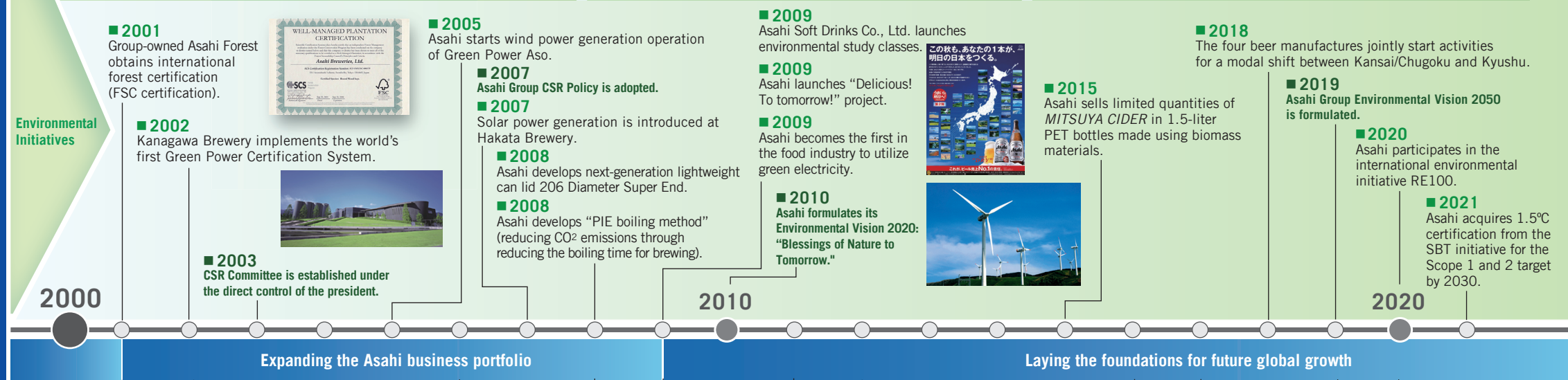
Asahi promoted initiatives to reduce environmental impact, such as reducing CO2 emissions, and developed technologies to utilize the by-products of manufacturing process.

Strengthening environmental measures based on a clear vision

Asahi formulated its "Blessings of Nature to Tomorrow" environmental vision with clear annual targets, and strengthens environmental measures throughout the Group.

Promoting global environmental management

As a leading global company, we will be at the forefront of global efforts to resolve environmental problems through measures that include the active participation in international environmental initiatives.



Asahi Group Philosophy

Our Mission: 精神を伝える新しい、美しい生活文化の創造

Our Vision: 世界をリードする飲料メーカーとして成長する「グローバルな飲料企業」を目指す

Our Values: 挑戦と革新 最高の品質 感動の共有

Our Principles: 1. 社会貢献 2. 環境保護 3. 品質管理 4. 顧客満足 5. 従業員満足 6. 株主還元

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Building Environmental Value Together with All Our Stakeholders

The Asahi Group holds “Building value together with all our stakeholders” as the core principle of the Asahi Group Philosophy (AGP). With our environmental initiatives, too, we strive alongside all our stakeholders to reduce our burden on the environment and build environmental value to help create a sustainable society.



Collecting and Recycling Beer Containers with the Help of Customers in Romania

Ursus Breweries SA, a Romanian subsidiary of Asahi Europe and International Ltd., launched a national campaign to collect plastic caps and metallic pull-tabs from beer packaging in the fall of 2020. The campaign, named “*Ciucas* NCP 2020” in reference to Ursus Breweries SA's beer brand *Ciucas*, collected and recycled a total of 1,338 kilograms of material.

Earlier, in 2019, Ursus Breweries SA partnered with the three biggest Romanian festivals of Neversea, Untold, and Oktoberfest to collect beer cans and plastic cups on-site for recycling. At the Neversea and Untold festivals, draft beer was served in recyclable paper cups, and dedicated recycling machines for different kinds of packaging material were installed on the festival grounds. Festivalgoers received special rewards for participation in these efforts, encouraging them to take an active role. These initiatives recovered over 1,200 kilograms of aluminum cans and 21,800 plastic cups for recycling, an achievement for which Ursus Breweries SA was recognized at the Green Can Business Award 2019 Gala.



Constructive Dialogue and ESG Briefing Sessions with Investors

As part of its Medium-Term Management Policy, which is based on the Asahi Group Philosophy (AGP), the Asahi Group is committed to reinforcing ESG initiatives to strengthen sustainability and governance initiatives and improve the quality of its information disclosure, integrating both financial and non-financial data such as environmental, society, and governance (ESG) information.

In June 2021, an ESG briefing session was held by our directors in charge of sustainability and governance to help our stakeholders deepen their understanding of our ESG initiatives and offer a venue for constructive dialogue and engagement with capital markets, based on the principles set forth in the AGP of building value together with all our stakeholders.

Drawing on opinions and suggestions gained from this engagement, the Asahi Group will further accelerate its management reforms to place sustainability at the heart of management, linked to business growth, thus integrating sustainability and management.



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Employee-Driven Forest Preservation Activities at Water Producing Sites

The Asahi Group is actively engaged in forest conservation activities to protect water resources around the production bases of Group companies throughout Japan.

Forest preservation activities at water producing sites were launched in 2004 by the Shikoku Brewery of Asahi Breweries, Ltd. on the principle of "conserving the water resources we use ourselves." The initiative has since expanded to encompass not only other production bases of Asahi Breweries, Ltd. across Japan but also other Asahi Group companies, including The Nikka Whisky Distilling Co., Ltd., Asahi Group Foods, Ltd., and Asahi Soft Drinks Co., Ltd. As of the end of 2020, 187 separate activities have been carried out at 14 sites in Japan by a total of 8,208 participants.

The participants in these forest preservation activities are Group company employees and their families. They work with local NPOs, forest cooperatives, and governments to plant, prune, and thin trees and cut grass as well as engage in forest road construction and maintenance. This initiative originated by Group employees and their families has thus grown into a larger movement with local residents invited to join in, too.



Employees Visit Schools to Host Eco- Classroom

In 2009, Asahi Soft Drinks Co., Ltd. launched an initiative which saw company employees visit Japanese elementary schools to teach classes about the environment using *MITSUYA CIDER* as their theme. In 2018, the company began offering an advanced class called the *MITSUYA CIDER* Classroom for the Future of Water and the Environment (SDGs School for Children), designed to encourage children to take greater ownership over and think more proactively about water conservation and the global environment.

The curriculum seeks to increase children's interest in environmental issues. After exploring the difference between hard and soft water and studying filtration mechanisms through experiments, children learn about the UN's Sustainable Development Goals (SDGs) through examples from everyday life. The class ends with a group discussion on "what we can do" to protect the future global environment.

In 2019, 75 employees held classes for a total of 1,583 children at 31 schools in Japan.

Note: The program was suspended in 2020 due to the COVID-19 pandemic.



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Collaboration with Society Through Dialogue with NPOs

In 2019, the Asahi Group participated in answering the survey questionnaire “Ethical Report Card of Companies” conducted by the Citizens’ Network to Build a Sustainable Society through Responsible Consumption (SSRC). Inspired by this, in 2021, our staff in charge of sustainability held a dialogue with 13 representatives from consumer organizations, environmental conservation groups, and other stakeholders that belong to the SSRC to discuss the theme of the responsibilities of businesses, consumers, and community members for building a sustainable society. The participants explained recent trends and expectations for companies around ethical consumption and commented that consumers’ selection of products conveys the most important message to businesses, while also expressing their desire to create a society in which it is easy for consumers to select the products of companies dedicated to ESG and other sustainable activities. Through such dialogue with NPOs, the Asahi Group will listen to diverse voices to reflect them in its environmental initiatives.

The Asahi Group has also been active in engaging with various networks to work on solutions to social issues through dialogue and collaboration that transcends corporate boundaries. In December 2020, we participated in the Japan Hydrogen Association, an organization aiming to promote the use of hydrogen, which has been drawing increasing attention, in an effort to reduce CO₂ emissions. In March 2021, the Group became a member of the Japan Climate Leaders’ Partnership, an association of Japanese companies whose mission is to achieve a sustainable decarbonized society, and since then has been working collaboration with its members.



The SSRC's 2019 “Ethical Report Card of Companies”



Wildlife Conservation in Malaysia

In 2020, Etika Dairies Sdn. Bhd, a Malaysian subsidiary of Asahi Holdings South East Asia, launched a campaign to support the activities of the World Wide Fund for Nature Malaysia (WWF-Malaysia), timed to coincide with the release of *Goodday Banana Flavoured Milk*, the latest product under the *Goodday* brand. The campaign aims to educate people about the plight of endangered Bornean orangutans and raise awareness of conservation efforts.

Consumers were urged to scan the QR code on the product’s packaging to learn more about the endangerment of orangutans and how they can support the cause. To drive further support, *Goodday* committed to increasing their donation to WWF-Malaysia based on the number of consumers who used social media to share images of *Goodday Banana Flavoured Milk* packaging along with a specific hashtag.



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Support for Coastal Clean-Ups in New Zealand

Asahi Beverages (NZ) Ltd and The Better Drinks Co. Ltd are New Zealand-based subsidiaries of Asahi Holdings (Australia) Pty Ltd which have supported beach clean-ups and reforestation activities of charitable organisation Sustainable Coastlines since 2012 through its organic drink brand *Phoenix Organics*. In 2020, The Better Drinks Co. Ltd remained a gold sponsor of Sustainable Coastlines with 40 employees participating in a beach clean-up Rangitoto Island.

Ocean plastic waste is a severe problem that threatens entire ecosystems. Sustainable Coastlines brings together participants from local communities, businesses, schools, and other organizations to raise environmental awareness and encourage people to take action. The charity's events include coastal clean-ups, reforestation to improve river and wetland water quality, and waste-reduction campaigns. As a gold sponsor, The Better Drinks Co. Ltd supplies drinks and other support for event participants, valued at NZ\$20,000 per year, and the company's employees (across both Asahi Beverages (NZ) Ltd and The Better Drinks Co. Ltd) and their families directly participate in events to support these initiatives.



Joining Circular Economy Initiatives in Oceania

In 2021, Asahi Beverages Pty Ltd, a company under the umbrella of Asahi Holdings (Australia) Pty Ltd, joined the ANZPAC Plastics Pact, a circular economy initiative for plastics established by governments, NGOs, and other entities in Australia, New Zealand, and the Pacific Islands region. Members of the Pact commit to specific targets surrounding plastic, and report annually on their progress. These targets align to our current Asahi Beverages Pty Ltd sustainable packaging and Australian Packaging Covenant Organisation targets, including making 100% of our packaging reusable, recyclable, or compostable by 2025.



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Working with a Dutch Supermarket Chain to Promote Sustainability Efforts

Koninklijke Grolsch N.V., a Dutch subsidiary of Asahi Europe and International Ltd., has been working with Dutch supermarket chain Jumbo to create full beer shelf presentation that promote the company's goal of achieving carbon neutrality by 2025.

The beer shelf presentation include kettles and filling lines used in real breweries, and provide information about types of beer and brewing processes as well as Koninklijke Grolsch N.V.'s own carbon neutrality initiatives and its progress so far.

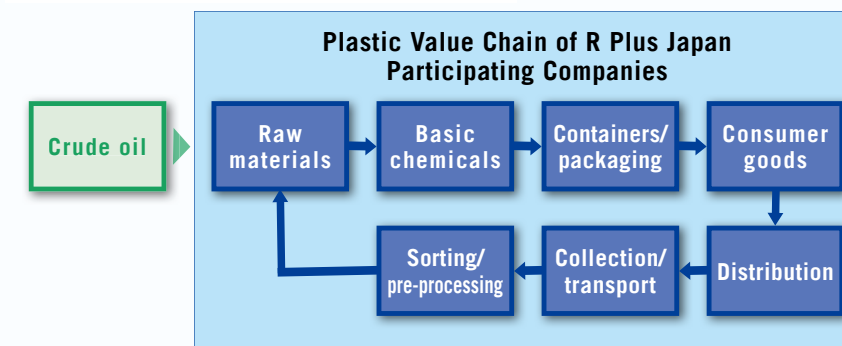
Jumbo is known in the Netherlands as a company addressing social issues such as food loss and waste at the forefront of sustainability initiatives. Koninklijke Grolsch N.V. has worked with the supermarket chain since 2017 developing the concept for these full beer shelf presentation with unique beer experience.



Cross-Industry Initiatives Toward Plastic Recycling

To help solve the problem of plastics, the Asahi Group established R Plus Japan Ltd., a joint capital company for plastic waste recycling, alongside other 11 founding companies within the plastic value chain: Suntory MONOZUKURI Expert Ltd., TOYOBO Co., Ltd., Rengo Co., Ltd., Toyo Seikan Group Holdings Ltd., J&T Recycling Corporation, Iwatani Corporation, Dai Nippon Printing Co., Ltd., Toppan Inc., Fuji Seal International Inc., Hokkaican Co., Ltd., and Yoshino Kogyosho Co., Ltd. As of July 2021, the total number of participating companies was 29.

R Plus Japan Ltd. will work with Anellotech, Inc., a biochemical venture firm in the United States, to develop effective green technologies for recycling used plastics. This will enable PET bottles and other plastic waste to be converted back to basic chemicals such as benzene, toluene, xylenes, ethylene, and propylene, contributing to reducing CO₂ emissions as well as effectively recycling as much plastic as possible.



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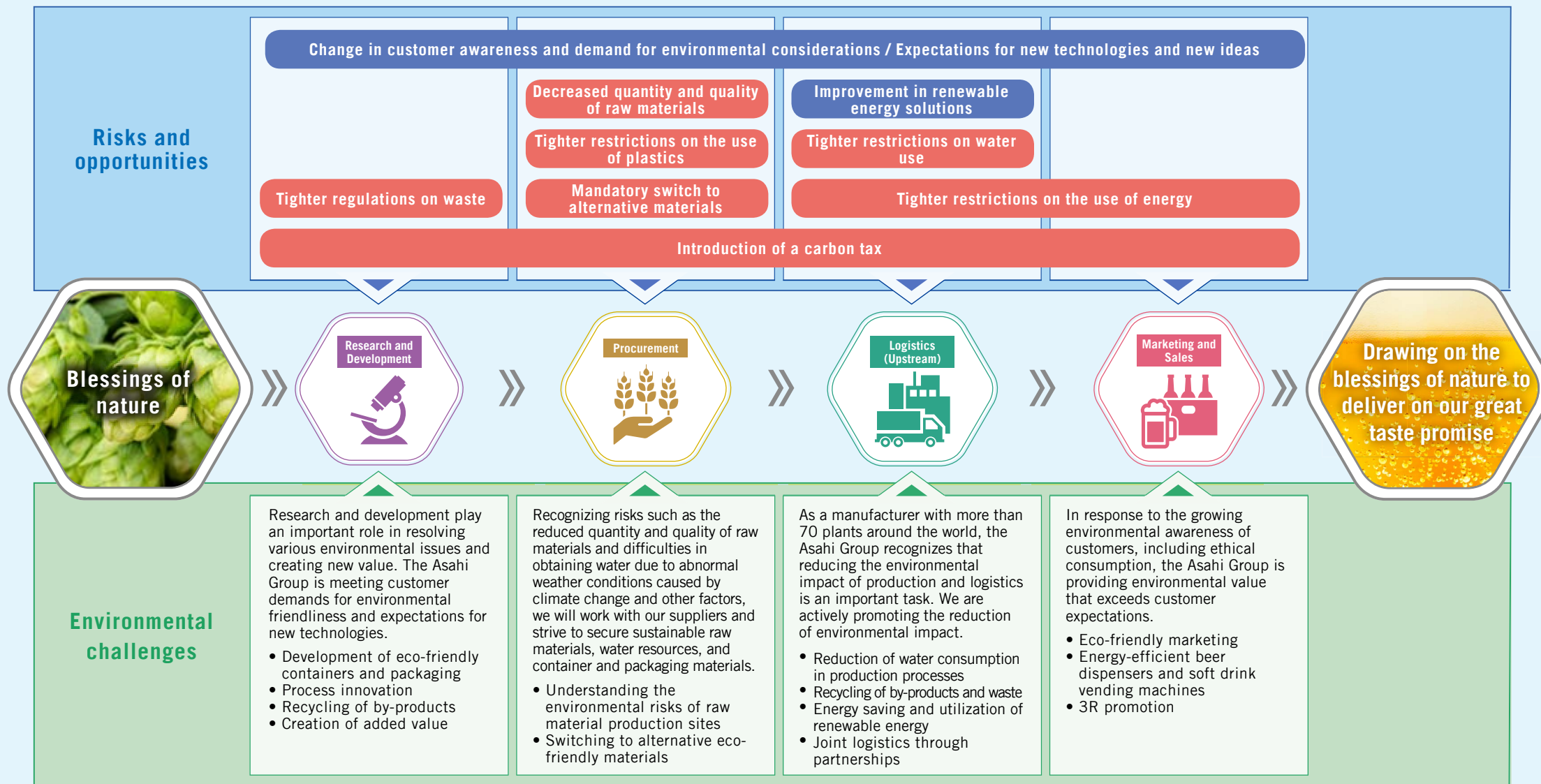
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▶ Embodying the Asahi Group Philosophy

Value Chain Challenges

The Asahi Group is working to reduce the environmental impact of its entire value chain in order to realize Asahi Group Environmental Vision 2050.

We seek to pass on the blessings of nature to future generations by grasping the environmental burden at each stage of the value chain and continuing to take on challenges in response to business-related risks and opportunities.



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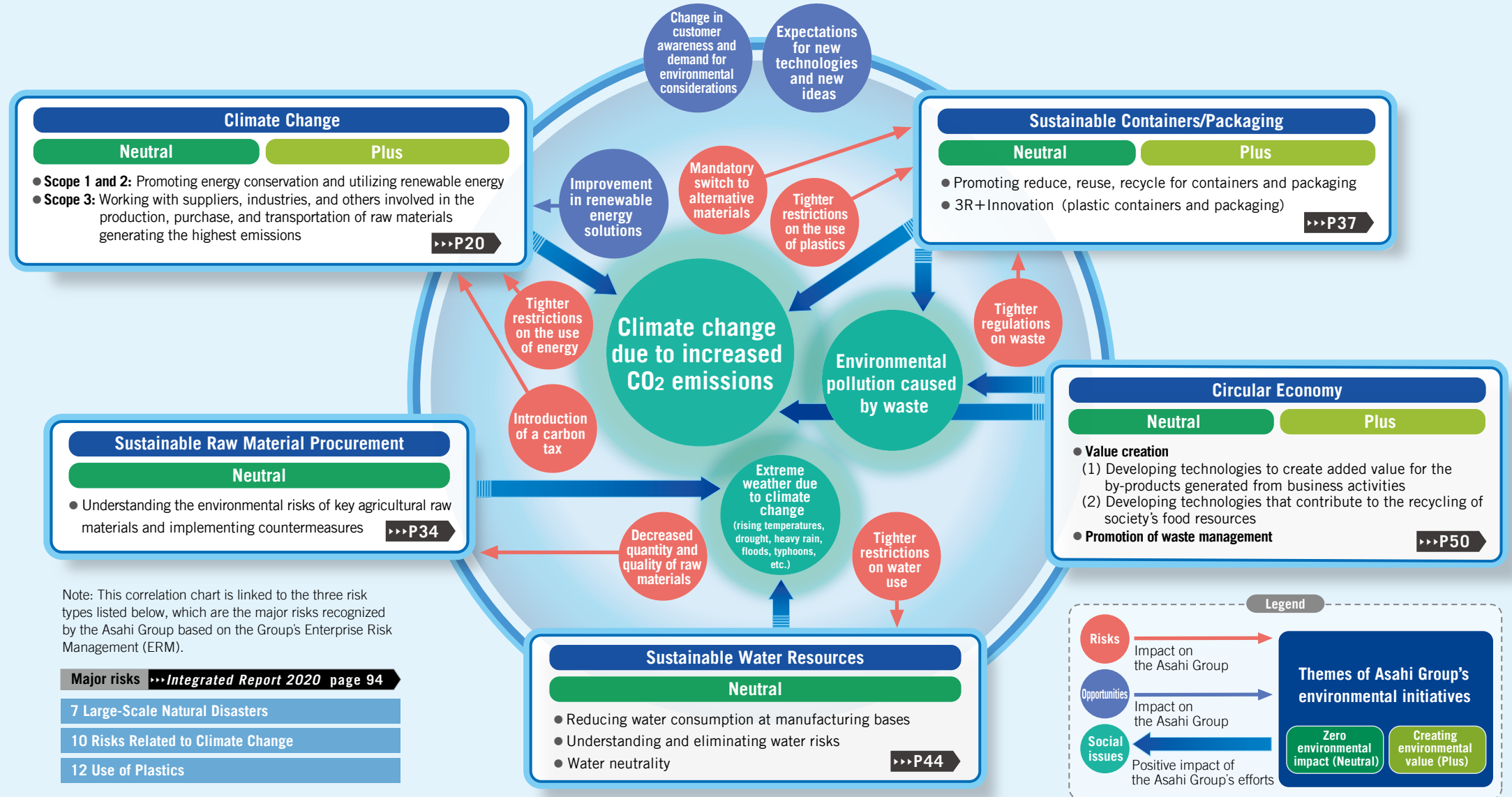
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The Asahi Group has identified risks and opportunities related to its business activities based on globally shared social issues that include climate change, extreme weather, and waste. We address these risks and opportunities by establishing themes for initiatives and promoting activities within our material issues.

Our materiality has five themes relevant to both risks and opportunities, and we believe that our initiatives will have a positive impact on society and the Group's business activities.



Note: This correlation chart is linked to the three risk types listed below, which are the major risks recognized by the Asahi Group based on the Group's Enterprise Risk Management (ERM).

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▶▶▶ 1. Respond to Climate Change

The Asahi Group recognizes responding to climate change as an urgent issue and believes it has a responsibility to reduce its own CO₂ emissions.

“Respond to Climate Change” is one of the points listed in the Asahi Group Environmental Vision 2050 as the Group aims to achieve zero environmental impact in its business activities (Neutral). The Asahi Carbon Zero target adopted by the Group calls for CO₂ emissions to be reduced to zero by the end of 2050.

To achieve this goal, the Group collaborates with stakeholders on a range of initiatives to reduce CO₂ emissions at every stage in the value chain,

from raw material production to manufacturing and sales.

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Climate Change (Asahi Carbon Zero)

The Asahi Group's Approach

The Challenge

Global warming has caused abnormal weather conditions all over the world, greatly damaging lives and properties. Phenomena include unprecedented changes to the climate, drought caused by heat waves, and flooding caused by typhoons and torrential rain. Climate change is an important social issue for the Asahi Group, which operates businesses using blessings of nature.

Based on the Paris Agreement and the United Nations Sustainable Development Goals (SDGs), the Asahi Group has adopted Asahi Carbon Zero, a target for reducing CO₂ emissions to zero by the end of 2050. We are proactively advancing a number of different activities for achieving this target. In 2019, we expressed our support for the recommendations of the Task Force on Climate-related Financial Disclosures (TCFD). Through scenario analysis, we prepare business strategies that consider climate change.

By continuously taking action against climate change, the Asahi Group will stay committed to the aim of achieving zero environmental impact (Neutral) in its business activities so that the valuable blessings of nature can be passed on to future generations.

Our Response

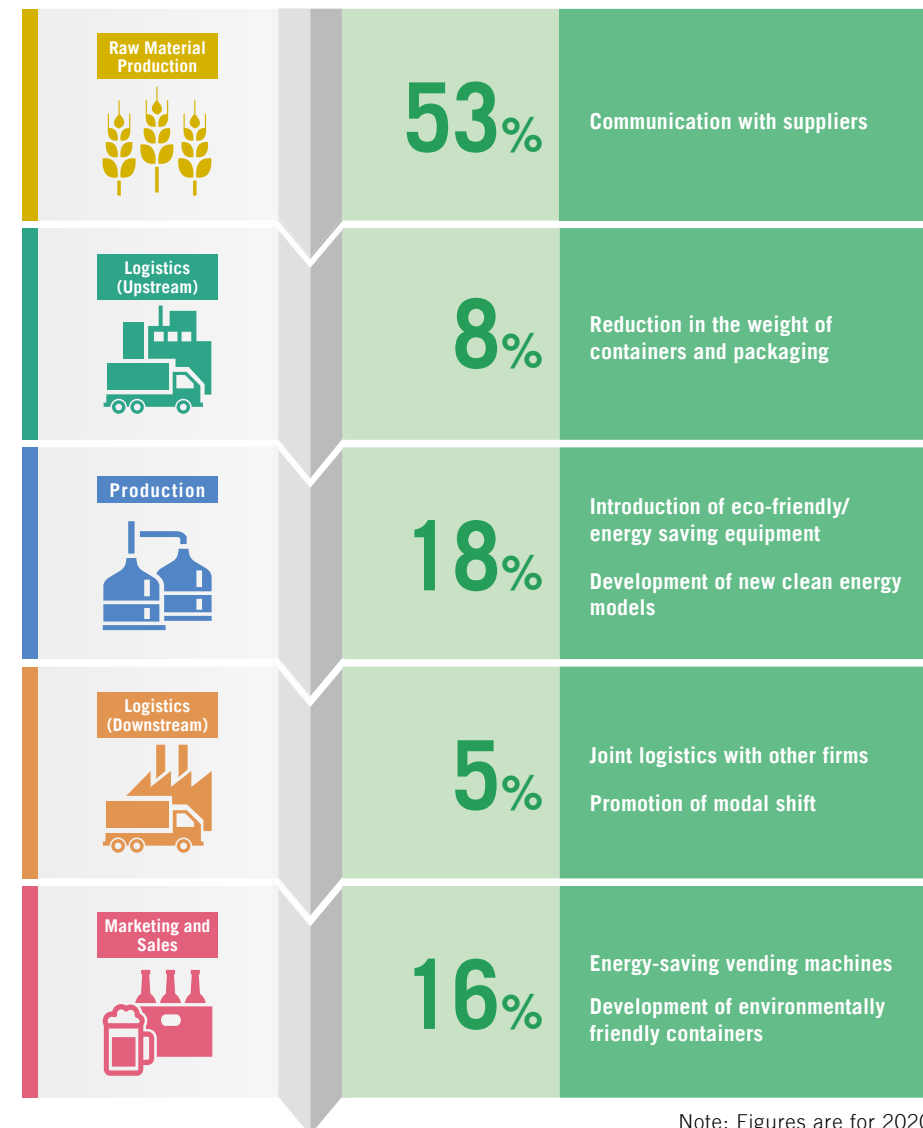
In order to achieve carbon zero in its value chain, the Asahi Group is taking various measures to reduce CO₂ emissions in Scope 1, 2, and 3. These measures include proactively using renewable energy at manufacturing bases, reviewing manufacturing processes, and pursuing more efficient distribution methods.

The CO₂ emission ratios at each stage of the value chain are calculated by the Asahi Group based on the GHG Protocol. Building on this, the Group is not only promoting initiatives to further reduce CO₂ emissions from manufacturing and distribution, it is also cooperating with its suppliers to reduce CO₂ emissions from raw material production.

● Co-creation with Stakeholders

The Asahi Group is reaching out to suppliers to learn about and move toward reducing CO₂ emissions from the raw material production stage, with questions on its Supplier CSR Questionnaire covering "Sustainable and efficient utilization of resources (energy, water, raw materials, etc.)" and "Reduction of GHG (greenhouse gases)." Additionally, through joint logistics operations with other companies for product transportation, installation of vending machines with lower electricity consumption with the cooperative of industry groups, and other means, the Group is advancing initiatives to reduce CO₂ emissions through cooperation with stakeholders at every stage in the value chain.

CO₂ Emissions Ratios and Initiatives in the Value Chain



Note: Figures are for 2020.

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The Asahi Group's Approach

Our Goals

Under the Asahi Carbon Zero initiative, which includes medium- and long-term goals with regard to climate change, the Asahi Group aims to achieve zero CO₂ emissions in Scopes 1, 2, and 3 by 2050, and reduce emissions by 50% for Scopes 1 and 2 and 30% for Scope 3 by 2030.

Asahi Carbon Zero has obtained certification from the Science Based Targets (SBT) initiative for the 1.5°C Target for the Scope 1 and 2 target by 2030.

In order to reach these targets, the Asahi Group will implement a variety of measures, including the introduction of renewable energy; the recovery and use of waste heat, such as steam, from manufacturing processes; the use of cold energy, including energy gained through the normal-temperature replenishment of rows of cans; the introduction of cogeneration facilities; fuel conversion; and activities that practically apply the ISO 14001 standard at all of the Group's business establishments.

Furthermore, as part of the Asahi Group's efforts to achieve Asahi Carbon Zero, it became the first corporate group in the beverage industry in Japan to join RE100, an initiative promoting a switch to renewable energy for all business uses.



DRIVING AMBITIOUS CORPORATE CLIMATE ACTION



Asahi Carbon Zero: Medium- to Long-Term Climate Change Targets

| 2050 | Asahi Carbon Zero—The Asahi Group's Medium- to Long-Term Target for Reducing CO ₂ Emissions | | | |
|------|---|--|--|---|
| | Reduce our CO ₂ emissions in Scope 1, 2, and 3 to zero, thereby becoming carbon neutral* ¹ | | | |
| | <div style="text-align: center;"> </div> | | | |
| | Reduce CO ₂ emissions in Scope 1 and 2 by 50% (compared with 2019)* ² Reduce CO ₂ emissions in Scope 3 by 30% (compared with 2019)* ¹ | | | |
| 2030 | Japan | Europe | Oceania | Southeast Asia |
| | Reduce CO ₂ emissions every year by 1% or more over the previous year | Reduce CO ₂ emissions in Scope 1 and 2 to zero by introducing renewable energy at plants, thereby becoming carbon neutral | Reduce CO ₂ emissions in Scope 1 and 2 by 50% (compared with 2019) | Reduce CO ₂ emissions in Scope 1 and 2 every year by 2% or more over the previous year |
| 2025 | Japan | Europe | Oceania | Southeast Asia |
| | <ul style="list-style-type: none"> • Use renewable energy for 100% of electricity purchased at all production bases • Reduce CO₂ emissions every year by 1% or more over the previous year | Shift to 100% renewable energy for the electricity used at plants | Shift to 100% renewable energy for the electricity used in Australia and New Zealand | Reduce CO ₂ emissions in Scope 1 and 2 every year by 2% or more over the previous year |

*1 Applicable companies: Asahi Breweries, Ltd., Asahi Soft Drinks Co., Ltd., Asahi Europe and International Ltd., and Asahi Holdings (Australia) Pty Ltd

*2 Applicable companies: Operating companies in Japan, Asahi Europe and International Ltd., and Asahi Holdings (Australia) Pty Ltd

Social Impact

By launching initiatives to reduce CO₂ emissions across the entire value chain and striving to achieve Asahi Carbon Zero, the Asahi Group aims to realize zero environmental impact (Neutral) in its business activities as set out in the Asahi Group Environmental Vision 2050 and contribute to resolving climate change issues such as disasters and rising sea levels. Additionally, through these and similar initiatives, the Group will contribute to achieving SDGs 7 and 13.



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Initiatives Across the Value Chain

Heading icons are explained on page 20.

Production



Scope1+2

Using Green Power for Beer Brewing and Manufacturing

In 2007, Asahi Breweries, Ltd. introduced a solar power generation system at its Hakata Brewery that was one of the largest at any Japanese brewery at the time. In 2009, the company entered into an agreement with Japan Natural Energy Company Limited to buy 40 million kWh per year of green power generated by wind and biomass energy sources—the largest contract of its kind in Japan's food industry at the time—to brew beer-type beverages. These are just two of the advances the company has made in using green power.

Asahi Breweries, Ltd. has been advancing an initiative to use green power across all of its breweries to produce *Asahi Super Dry* (350 milliliter and 500 milliliter cans), the non-alcoholic beer-flavored beverage *Asahi Dry Zero* (350 milliliter can), and a range of beer gift sets. This initiative and the use of green power at the Asahi Group Holdings headquarters have contributed to a cumulative total reduction in CO₂ emissions from 2009 to 2020 of approximately 116,000 tons.*

The "Green Energy" label is on *Asahi Super Dry* 350 milliliter beer cans, product packaging, and gift set boxes to indicate that they are manufactured using green power.

* The CO₂ emissions coefficient used is the latest, issued annually by the Federation of Electric Power Companies of Japan. (From 2016 onwards, the coefficient used is that provided by the Electric Power Council for a Low Carbon Society (ELCSS))



All the electricity used in the manufacturing of this product, with the exception of privately generated power, is green electricity.

Production



Scope1+2

Brewing Beer with Wind Power (Europe)

Asahi Europe and International Ltd. has set a target of having all of its breweries powered solely by green electricity by 2025 and being carbon-neutral by 2030. Each brewery and malting house is pursuing its own initiatives to this end. The company's Polish breweries have already completed the transition to 100% green electricity, while its Romanian breweries aim to achieve this initial goal by 2023 and its Italian breweries and malting house by 2024.

Lech, the company's staple and premium brand of beer in Poland, states on its label that it is brewed only using wind power.



Production



Scope1+2

Adopting Renewable Energy Through Corporate PPAs (Australia)

Asahi Holdings (Australia) Pty Ltd is purchasing renewable energy through corporate power purchase agreements (PPAs) as part of its efforts to reach zero CO₂ emissions.

In 2019, Karadoc Solar Farm, one of the largest solar power plants in Victoria, Australia, officially commenced its operations and began supplying electricity to Carlton & United Breweries Pty. Ltd. (CUB), a subsidiary of Asahi Holdings (Australia) Pty Ltd. Built by Australian energy solutions provider BayWa r.e., the power plant covers an area of approximately 270 hectares and is equipped with 330,000 solar panels with an output of 112 MW. Upon the plant's completion, CUB entered into a 12-year PPA with BayWa r.e. to receive an annual supply of 74,000 MWh of electricity.

Not only does this PPA allow CUB to procure renewable energy, it will also reduce purchasing costs and secure power supply over the long term, bringing the company much closer to its goal of sourcing 100% of its purchased electricity from renewable sources by 2025.

CUB's classic beer brand, *Victoria Bitter*, as of 2020 is brewed with 100% off set solar electricity.



Victoria Bitter, an Australian beer, is brewed using only solar electricity.

Annual PPA total: **74,000 MWh**



Renewable energy introduced via corporate PPA (Australia)/Photo credit: BayWa r.e.

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Scope 1+2

Using Heat from Biomass Power (Netherlands)

In 2020, Koninklijke Grolsch N.V., a subsidiary of Asahi Europe and International Ltd. in the Netherlands, entered a contract for heat supply from Twence Holding B.V., a company that provides electricity, heat, and steam generated from biomass power.

This is expected to reduce Koninklijke Grolsch N.V.'s use of natural gas by 3 million cubic meters and lower its CO₂ emissions generated through the use of natural gas by 72% annually. Construction of the thermal energy pipeline from Twence Holding B.V. will start in 2021, and actual supply of energy will start from 2022. The thermal energy will be used to heat pasteurization equipment, power bottle and crate washing machines, and warm buildings.

Koninklijke Grolsch N.V. has set itself the goal of becoming a 100% carbon-neutral brewery by completely switching to sustainably produced energy by 2025, and is actively working to reduce its energy consumption and CO₂ emissions. The company has already achieved a 6,700-ton reduction in emissions by purchasing 100% green electricity in 2020.

Reduction in CO₂ emissions: **72%** per year



Logistics (Downstream)



Scope 1+2
Scope 3

Joint Logistics in Partnership with Industry Peers

In Japan, the Asahi Group engages in a variety of activities to promote eco-friendly transportation.

In addition to cooperation with shipping companies as specified by the Japanese Act on the Rationalization, etc. of Energy Use, such as Asahi Breweries, Ltd., Asahi Soft Drinks Co., Ltd., and the Group logistics company Asahi Logistics Co., Ltd., in recent years the Group has been working to expand its efforts to include industry peers.

Since 2017, joint logistics between Asahi Breweries, Ltd., Kirin Brewery Company, Limited, Sapporo Breweries Limited, and Suntory Beer Ltd. have covered product delivery in the Kushiro and Nemuro districts of the eastern part of Hokkaido Prefecture. Product shipments smaller than a full truckload are taken from the production and distribution facilities of the four companies to a warehouse at the JR Sapporo cargo terminal station and loaded for delivery to their respective destinations via a combination of rail and road freight. Since 2018, the four companies have also jointly operated train cars for transportation between Kansai/Chugoku and Kyushu to effect a modal shift.

The four companies also jointly collect beer pallets across Japan. The Asahi Group estimates that this initiative will reduce CO₂ emissions from the four companies by a combined total of about 4,778 tons per year (a 47% reduction) by improving the load-carrying efficiency of vehicles used for collection, shortening the distance they travel for collection, and lowering the number of trucks used in connection with collection operations.

Reduction in CO₂ emissions:

Approx. **4,778** t per year

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Response to Task Force on Climate-related Financial Disclosures (TCFD)

Endorsing the Recommendations of the TCFD

The Asahi Group understands that evaluating the impact of climate change-related risks and opportunities on its businesses and drafting appropriate response measures are important matters in terms of realizing a sustainable society and ensuring business continuity. To that end, the Group endorses the recommendations of the Task Force on Climate-related Financial Disclosures (TCFD).

We conducted a scenario analysis in the Beer Business in 2019 and expanded the scope of this analysis to the Soft Drinks and all Alcohol Beverages Businesses, including the Beer Business, in 2020. In 2021, we are moving forward with plans to conduct a scenario analysis in all major businesses, including the Food Business. By clarifying the impact of climate-related issues on our business operations and taking measures to resolve those issues, we will make our business operations more sustainable and promote dialogue with investors to enhance our corporate value.

Governance

Viewing climate change as an important issue pertaining to sustainability, the Asahi Group's Global Sustainability Committee, chaired by the CEO, formulates climate change strategies. At the same time, the Committee submits reports to the Board of Directors and works to strengthen a PDCA cycle under the Board's supervision. At the Global Sustainability Committee meeting held in December 2020, members including the CEOs of each Regional Headquarters (RHQ) held lively discussions regarding the Group's 2030 goals for reducing CO₂ emissions. As a result, we decided to upwardly revise our target values and are committed to actively promoting initiatives to achieve these new values.

Strategies

Summary of Scenario Analysis Results

The Asahi Group conducted a scenario analysis on its Beer Business in 2019. In 2020, a similar analysis was also performed on the Soft Drinks and all Alcohol Beverages Businesses, including the Beer Business. The objective of these analyses is to determine the impact of climate change risks and opportunities on our business operations and to discuss measures. The analyses refer to RCP2.6 (under 2°C) and RCP8.5 (4°C) scenarios developed by the Intergovernmental Panel on Climate Change (IPCC) and the scenario created by the International Energy Agency (IEA).

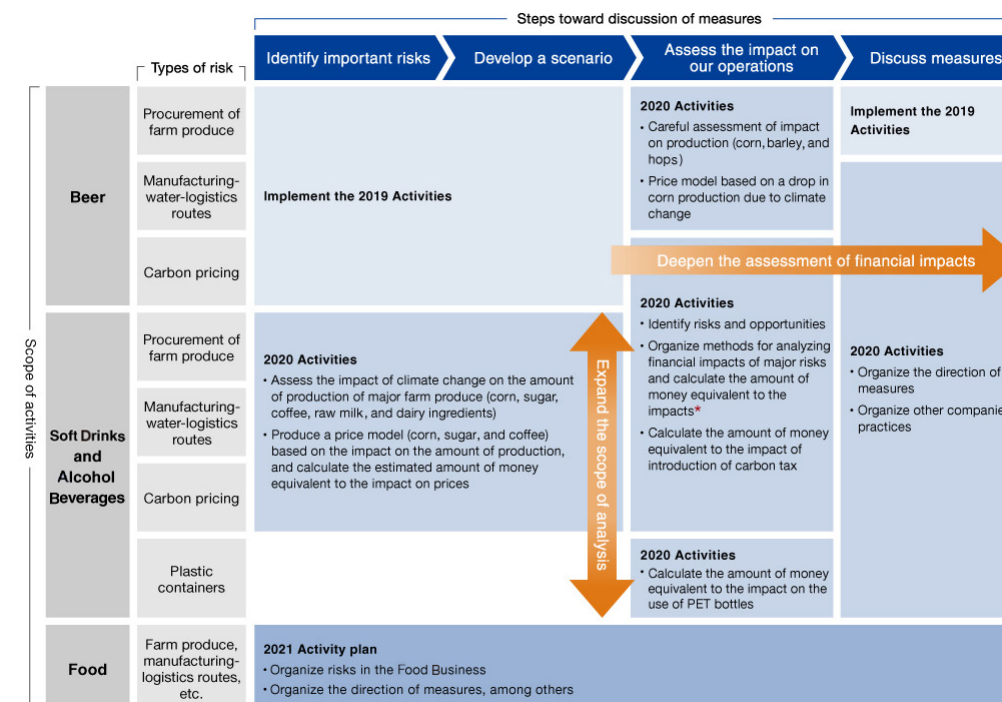
<2019 Analysis Results>

The scenario analysis in 2019 was about the Group's Beer Business. Climate change clearly had a major impact, such as a drop in the yields of farm produce that is important for our businesses, a rise in manufacturing costs after the introduction of a carbon tax, and the aggravation of risks of water stress and flooding in farms and manufacturing locations. As we discuss measures against these impacts, we are beginning to see the possibility that we can control the impact and seize opportunities by reinforcing mitigation and adaptation measures against these risks.

<2020 Analysis Results>

In 2020, the scope of analysis was expanded to the Soft Drinks and all Alcohol Beverages Businesses, including the Beer Business. Moreover, our analysis on the Beer Business in 2019 was deepened to assess the impact of climate change on our business operations and to discuss measures.

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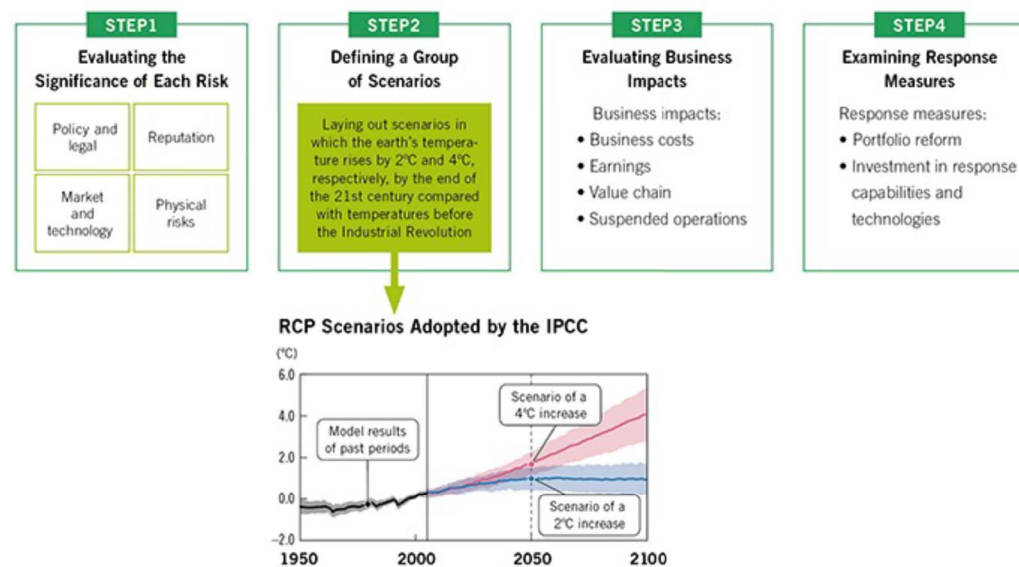
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Details of the Scenario Analysis

We are implementing scenario analysis using the following steps with the aim of examining the impact of climate change-related risks and opportunities on our Alcohol Beverages and Soft Drinks Businesses (in terms of the entire agricultural ingredients and product value chain).



Notes:1. These scenarios make reference to the IPCC RCP2.6 (2°C) and RCP8.5 (4°C) scenarios and IEA scenarios.

2. Source: created by the Asahi Group based on the IPCC's Fifth Assessment Report Summary for Policymakers (Figure SPM.7)

STEP 1: Evaluating the Significance of Each Risk

Climate change entails various risks and opportunities such as transition risks and physical risks. Among these, the risks and opportunities shown in the table below are particularly important for the Asahi Group's Alcohol Beverages and Soft Drinks Businesses.

| Risk Category | Business Risks and Opportunities | | Reasons for Selection as an Important Risk/Opportunity |
|-----------------------|-------------------------------------|-----------------------|---|
| Policy and Legal | Carbon Tax | Production (In-House) | Risks Under Asahi Group Environmental Vision 2050, we are taking steps to achieve Asahi Carbon Zero, an initiative that aims for zero CO ₂ emissions within our value chain. However, while circumstances vary by country and region, we anticipate a significant financial impact from the introduction of a carbon tax. |
| | | Plastic (PET) | Risks PET bottles, the main containers for use in our Soft Drinks Business are made from fossil fuel. For this reason, it is estimated that the introduction of a carbon tax would significantly affect our procurement costs. |
| | Regulations on Water Use | | Risks Since water is indispensable to our raw material production and factory operation, we anticipate that (the introduction of additional) regulations on water use will have a significant impact on our business continuity and financial position. |
| Market and Technology | Changes in Customer Behaviors | | Opportunities Risks Risks and opportunities stemming from the heightened environmental awareness of consumers have the potential to become a new factor that impacts net sales. |
| Physical Risks | Rising Price of Raw Materials | | Risks If a rise in raw material prices and the resultant transition to alternative raw materials become necessary, we will undergo a great deal of financial impact and this may affect the continuity of our business operations. |
| | Rise in Global Average Temperature | | Opportunities Temperature increases are expected to have a major impact on beer and beverage consumption during the summer. |
| | Changes in Precipitation Patterns | | Risks If our agricultural land and production bases were impacted by severe water shortages, it could potentially become difficult to continue our business operations. |
| | Intensification of Abnormal Weather | | Risks In the event that damage from heavy rains and typhoons, which are occurring more frequently in recent years, were to become more severe, our value chain may suffer significant harm, making it difficult to continue our business operations. |

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STEP 3: Evaluating Business Impacts

Among the important risks identified in 2019 and 2020, the increase of raw material prices due to the reduction of agricultural materials' harvest yields and the increases in costs due to the introduction of a carbon tax may have a particularly significant impact. The Asahi Group implemented the following analyses and business impact evaluations.

< Main Items >

- Research into factors affecting agricultural materials
 - Prediction of changes affecting the harvest of main agricultural materials
 - Experimental calculation of the potential financial cost of high-risk agricultural materials for the Asahi Group's Soft Drinks Business and its impact on its financial position
- Experimental calculation of the financial impact of the introduction of a carbon tax on the Asahi Group's financial position
 - Production (in-house)
 - PET bottles (value chain)

1. Research into Factors Affecting Agricultural Materials Harvests

(1) Prediction of Changes Affecting the Harvest of Main Agricultural Materials by Production Area

In 2019, the first year, the Asahi Group analyzed the impact of climate change on the main agricultural materials (barley, hops, corn, and rice) used in the Group's Japan and overseas Beer Business and learned that climate change created the risks of a reduction of harvest yields. In 2020, the scope of analysis was expanded to include materials for making coffee, milk, and sugar for use in the Group's Soft Drinks Business (e.g., carbonated beverages, dairy beverages, coffee-based beverages) and non-beer alcoholic beverages business (e.g., western liquors, shochu). To predict harvests in 2050, the Asahi Group analyzed numerous books on the impact of climate change on farm produce and experimentally calculated impacts by agricultural product type and production area to carefully identify changes in harvest yields. It was learned that the 4°C climate change scenario would significantly reduce harvest yields in many production areas, particularly of corn and coffee.

(2) Experimental Calculation of the Potential Financial Cost of High-Risk Agricultural Materials for the Asahi Group's Soft Drinks Business and Its Impact on Its Financial Position

The Asahi Group estimated the future prices of coffee and corn, which are high-risk agricultural materials used in the Group's Soft Drinks Business, to experimentally calculate their financial impact on the position of the Group.

The Asahi Group experimentally calculated the price impact of climate change based on the amount of raw materials purchased for the current Japanese and overseas Soft Drinks Businesses. This revealed a potential 1.97 billion yen increase in the cost of corn, and a roughly 2.66 billion yen potential increase in the cost of coffee.

Yield Forecasts for Each Scenario as of 2050 (Compared with Current Yields)

Main Ingredients of Beer

| Item | Country of Production | 2°C Scenario | 4°C Scenario |
|--------|------------------------------------|--------------|--------------|
| Barley | Canada (Spring) | +1% | +2% |
| | France (Spring) | -10% | -18% |
| | France (Winter) | -5% | -10% |
| | Eastern Region of Germany (Winter) | +8% | +19% |
| | Australia | -7% | -13% |
| | Czech Republic (Spring) | +18% | +7% |
| Hops | Czech Republic (Yield) | -5% | -7% |
| | Czech Republic (Quality) | -13% | -25% |

Common Ingredients of Alcohol Beverages and Soft Drinks

| Item | Country of Production | 2°C Scenario | 4°C Scenario |
|------|-----------------------|--------------|--------------|
| Corn | United States | -12% | -24% |
| | Brazil | -3% | -9% |
| | Argentina | -9% | -16% |
| | China | 0% | -10% |
| | Ukraine | -17% | -26% |
| | Australia | -13% | -27% |

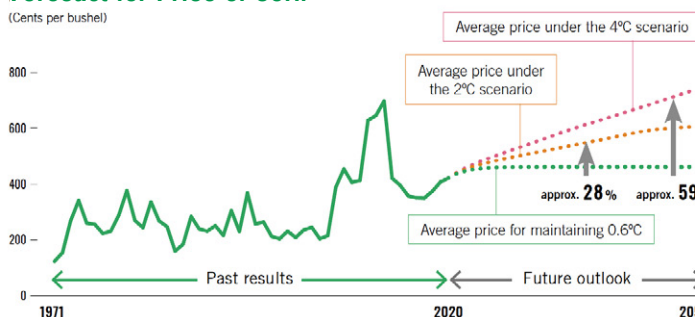
Main Raw Materials of Soft Drinks and Alcohol Beverages Other Than Beer

| Item | Country of Production | 2°C Scenario | 4°C Scenario |
|----------|-----------------------|--------------|--------------|
| Sugar | Australia | +1% | +2% |
| | Brazil | +3% | +12% |
| | India | 0% | -3% |
| | Japan | +2% | +21% |
| | Thailand | -26% | -45% |
| Raw Milk | Australia | -9% | -19% |
| | United States | -6% | -11% |
| | Japan | -2% | -3% |
| | New Zealand | -2% | -2% |
| | Brazil | -8% | -23% |
| | Colombia | -4% | -15% |
| Coffee | Guatemala | -11% | -17% |
| | Tanzania | -2% | -9% |
| | Ethiopia | -8% | -25% |
| | Vietnam | -9% | -24% |
| | Indonesia | -10% | -30% |

More than a 15% decrease compared to now

Quantitative risks of yield reduction

Forecast for Price of Corn



- Supply-demand balance
- GDP per capita
- Previous year's market conditions

Using factors that cause corn price fluctuations, such as supply-demand balance, GDP per capita, and the previous year's market conditions, we created a formula from past results and calculated future prices based on this formula.

Note: Basis of calculation: From historical price trends, we derived a formula to identify variables (balance of production and consumption, GDP per capita, previous year's market price, and the proportion of ethanol raw materials (corn only)) and used regression analysis to reproduce past prices. Predictions of future production and consumption, GDP per capita, and the proportion of ethanol raw materials (corn only) were entered into the formula to estimate future prices.

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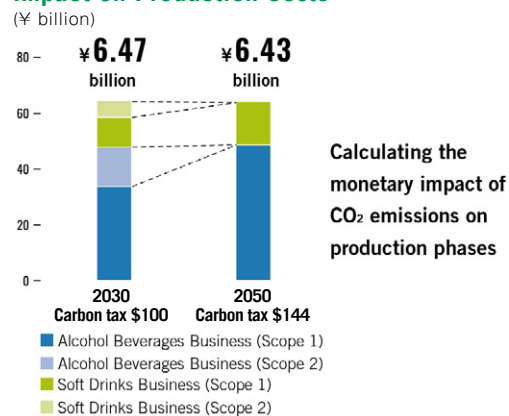
2. Experimental Calculation of the Financial Impact of the Introduction of a Carbon Tax on the Asahi Group's Financial Position

(1) Production (In-House)

The Asahi Group calculated the impact of the introduction of a carbon tax on our production operations for 2030 and 2050. Assuming the carbon tax would be 100 dollars/ton in 2030 and 144 dollars/ton in 2050, the carbon tax liability of the Alcohol Beverages and Soft Drinks Businesses combined would be 6.47 billion yen in 2030 and 6.43 billion yen in 2050. The increasing use of renewable energy leads the Asahi Group to expect that the goal of zero CO₂ emissions from electric power will be achieved by 2050. However, the total carbon tax liability will be nearly unchanged due to the increase of the carbon tax.

Note: Basis of calculation: The financial impact of the introduction of a carbon tax on the Asahi Group's financial position is calculated from the amount of CO₂ emissions during manufacturing. The Scope 2 emission factor is based on the IEA World Energy Outlook 2020. The amount of the carbon tax was estimated by the Group from predictions in the IEA World Energy Outlook, and the Group calculated it would be 100 dollars in 2030 and 144 dollars in 2050.

Impact on Production Costs



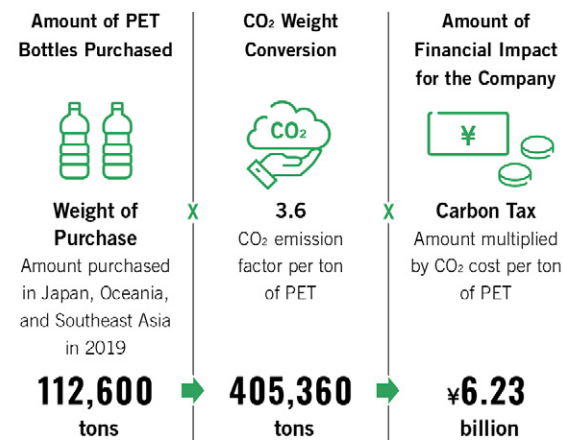
Calculating the monetary impact of CO₂ emissions on production phases

(2) PET Bottles (Value Chain)

It has been estimated that, more than other materials in the Soft Drinks Business's supply chain, PET bottles will be affected by the introduction of a carbon tax. The Asahi Group experimentally calculated the financial impact of the introduction of a carbon tax on the PET bottles that the Asahi Group uses. Assuming that the impact of a carbon tax on the processes from the extraction of raw materials to the manufacturing of PET resin is included entirely in the purchase price, the cost increase would be 6.23 billion yen according to the experimental calculation.

Note: Basis of calculation: The Asahi Group's own estimate calculates the carbon tax to be 144 dollars/ton in 2050 based on predictions in the IEA World Energy Outlook.

Impact of Fluctuating PET Bottle Prices



STEP 4: Examining Response Measures

1. Direction of Response Measures for Reducing Yields of Agricultural Products

The Asahi Group intends to pursue the following measures to address the risks related to its main agricultural raw materials.

(1) Cooperating with Suppliers

We share the risks associated with agricultural products with our suppliers, and we are considering ways to enhance crop varieties so that they can cope with climate change. We are also examining the development of alternatives to materials that we currently use. Furthermore, going forward, we will reinforce the partnership that the Group has with suppliers and implement various policies in order to respond to further reduced yields in the future.

<Sharing the Results of Research into Environmental Risks Impacting Important Raw Materials (Climate Change, Water, and Biodiversity) and Taking Measures Accordingly>

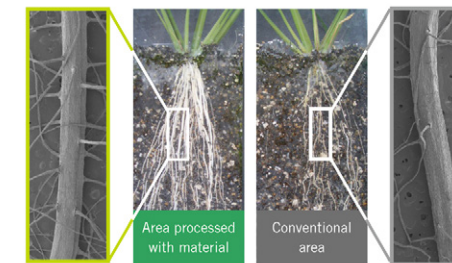
The Asahi Group believes that the sustainable procurement of raw materials is one activity it must conduct in line with the Asahi Group Environmental Vision 2050 as it implements activities related to the sustainability of raw materials. In this context, from 2020, the Group has been surveying risks affecting main agricultural materials in terms of climate change, water, and biodiversity and, if a potential risk has been identified, it is shared with suppliers to discuss measures.

(2) Supporting Farmers

The Asahi Group is undertaking a number of initiatives, such as supporting barley farmers in Italy who create the main ingredient for our products and conducting a pilot test in the Czech Republic to promote smart farming for hop cultivation.

(3) Utilizing In-House Technology

The Asahi Group is developing an agricultural material that utilizes brewing yeast cell walls. This material promotes the growth of plant roots and, through its utilization, we hope to improve the ability of agricultural products to cope with environmental changes due to climate change. We have already achieved results with various agricultural products and, going forward, will expand the use of this agricultural material and promote research geared toward its practical application.



Root growth promotion by utilizing brewing yeast cell walls

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2. Direction of Response Measures for Increased Production Costs Due to Carbon Tax Introduction

The Asahi Group has been striving to set ambitious goals for reducing CO₂ emissions.

(1) Upwardly Revising 2030 Goals for Reduction of CO₂ Emissions

In order to accelerate initiatives for achieving carbon neutrality by 2050, we upwardly revised our 2030 goal values from the current 30% reduction to a 50% reduction. We have confirmed that this revised target would result in a reduction of 2.23 billion yen in CO₂ costs in 2030 and the full cost amount of 6.43 billion yen in 2050. We recognize that the strategies we are currently striving toward are highly resilient to the rising costs of climate change and are appropriate from a resilience perspective.

(2) Utilizing In-House Technology

As part of our decarbonization initiatives, we have begun a demonstration project at the Ibaraki Brewery of Asahi Breweries, Ltd. to generate electricity using fuel cells powered by biomethane gas derived from brewery wastewater, which could serve as a new model for reducing CO₂ emissions.

Considering Introduction of Internal Carbon Pricing System

The Asahi Group has started considering the introduction of an internal carbon pricing (ICP) system. This will enable the Group to visualize financial impacts due to changes in CO₂ emissions and assess risks and opportunities with regard to capital expenditure planning. For projects that may impact CO₂ emissions, an internal carbon price set by the Group will be applied to convert the impact into virtual expenses, which are used as a reference index in making investment decisions. Through the effective use of the ICP system, we will advance our capital expenditure plans that will contribute to the reduction of CO₂ emissions to further promote Asahi Carbon Zero.

3. Direction of Response Measures for Fluctuating PET Bottle Prices Due to Carbon Tax Introduction

We have adopted the Group-wide goal of 3R+Innovation, and are striving to lower our environmental burden through sustainable containers and packaging, including increasing the use of recyclable PET bottles.

(1) Switching to Recycled PET Bottles

In Australia, we have launched *Cool Ridge*, a mineral water with a bottle made from 100% recycled PET resin. In Japan, we began using recycled PET for *CALPIS WATER* and other beverage bottles from July 2019. Going forward, in addition to its 3R initiatives, we will minimize our negative environmental impacts by reinforcing our alliances with other companies.

(2) Reducing the Weight of PET Bottles

Asahi Group operating companies will continue efforts to reduce the weight of PET bottles, and are also considering utilizing alternative containers and expanding the use of PET bottles made from biomass materials.



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Summary: Measures Against Important Risks and Related Opportunities

We will continue to accelerate our existing response measures to important risks. At the same time, as a crucial management task, we will adopt the following direction for our risk response measures going forward. In addition, we will also examine measures to respond to opportunities.

| Risk | Existing Measures | Direction of Response Measures Going Forward | Opportunities |
|-------------------------------------|---|---|---|
| Rising Price of Raw Materials | <ul style="list-style-type: none"> • Risk dispersion through multi-sourcing • Share results of research into risks of agricultural materials (climate change, water, and biodiversity) with suppliers and improve communication for addressing the risks • Support of farmers (e.g. barley in Italy and hop in Czech) | <ul style="list-style-type: none"> • Apply to agricultural materials the function of brewing yeast cell walls to mitigate the impact of climate change • Cooperate with suppliers in evaluating new varieties adaptable to environmental changes and continuously discussing whether to use them • Choose recipients for support and discuss scaling up to facilitate the sustainable procurement of raw materials • Conduct research and development, including collaborative research aimed at securing reasonably priced, high-quality raw materials | <ul style="list-style-type: none"> • Expand the business of materials for brewing yeast cell walls |
| Carbon Tax (production) | <ul style="list-style-type: none"> • Raise the 2030 target value in Asahi Carbon Zero • Take part in RE100 • Acquire the SBT 1.5°C certification • Introduce co-generation systems • Promote a modal shift • Introduce renewable energy provided by wind power generation in Poland and the Netherlands • Install highly efficient refrigeration systems | <ul style="list-style-type: none"> • Further utilize renewable energy • Establish technology for fuel cell power generation with the use of biomethane gas | <ul style="list-style-type: none"> • Contribute to making the global environment sustainable, by developing technologies for biomethane gas fuel cells and facilitating their spread |
| Carbon Tax (PET bottles) | <ul style="list-style-type: none"> • Launch in Australia of <i>Cool Ridge</i>, a mineral water with a bottle made from 100% recycled PET • Establish the 3R+Innovation principles on plastics • Cooperate and form joint ventures with recyclers in pursuit of the introduction of recycled PET bottles • Introduce guidelines for containers and packaging • Cooperate with suppliers in pursuit of higher rates of introduction of recycled PET • Activities for making PET bottles lighter in weight | <ul style="list-style-type: none"> • Accelerate activities for encouraging procurement in pursuit of higher rates of introduction of recycled PET • Discuss and choose alternative containers • Discuss increasing the use of PET bottles made of biomass materials | <ul style="list-style-type: none"> • Reduce the costs of recycled PET in collaboration with recyclers |
| Regulations on Water Use | <ul style="list-style-type: none"> • Achieve 100% utilization of sustainable water resources by 2050 • Achieve water neutrality at our beer breweries in Japan by 2025 • Reduce water consumption (reduce water consumption in the processes of cleaning and sterilization and encourage the efficient use of collected water) | <ul style="list-style-type: none"> • Continue to streamline water use (introduce large-scale recycling systems) • Discuss action based on the understanding and analysis of water risks in the places of origin of our main raw materials | |
| Changes in Customers Behavior | <ul style="list-style-type: none"> • Include the "Green Energy" label on 350- and 500-milliliter cans of <i>Asahi Super Dry</i>, gift sets of beer-type beverages, and 350-milliliter cans of <i>Asahi Dry Zero</i> • Launch <i>Victoria Bitter</i>, a brand of beer 100% brewed with photovoltaic power, in Australia • Launch <i>Lech</i>, a brand of beer 100% brewed with wind power, in Poland | <ul style="list-style-type: none"> • Adapt our businesses to the growth of ethical consumption (e.g. develop products for ethical consumption, use certified raw materials) | <ul style="list-style-type: none"> • Expand sale of <i>Asahi Super Dry</i> and other products 100% brewed with renewable energy |
| Intensification of Abnormal Weather | <ul style="list-style-type: none"> • Implement measures to respond to wind- and water-related disasters | <ul style="list-style-type: none"> • Consider the medium- and long-term impact of climate change on the transfer and addition of our business locations | |

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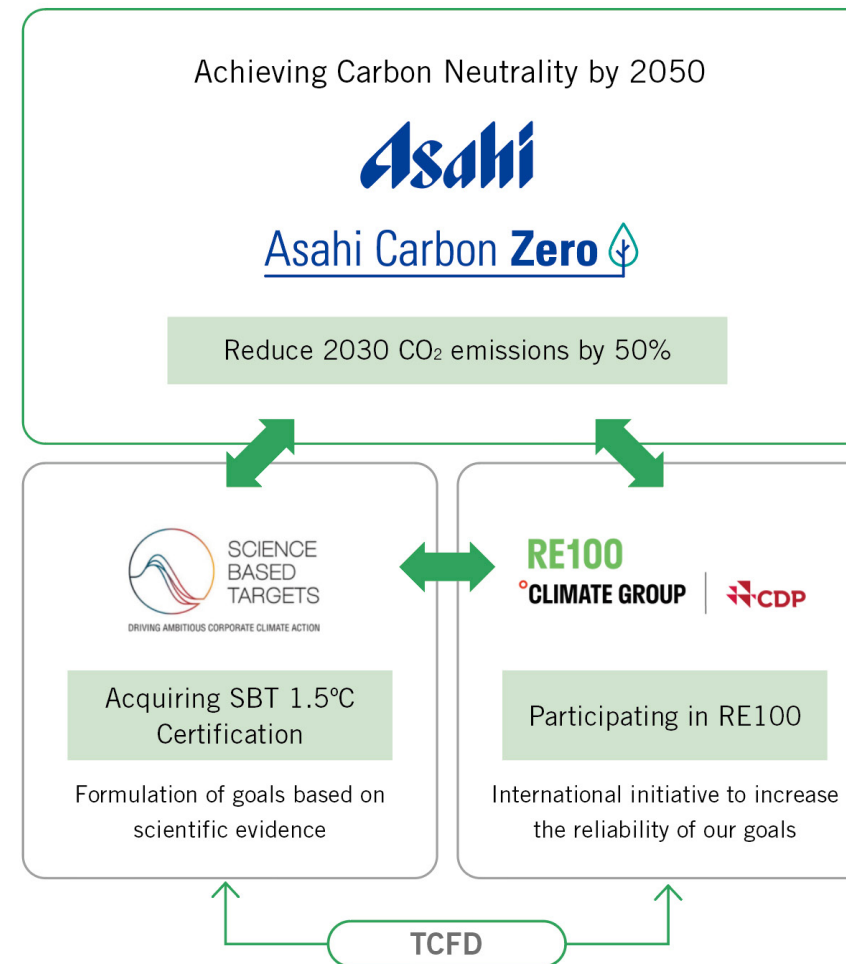
Risk Management

In the Asahi Group Risk Appetite Statement, which was formulated in 2020, the Asahi Group has announced its policy of promoting efforts to reduce risks that impact the natural environment.

Accordingly, climate change has been adopted as a main risk for the Group within our enterprise risk management (ERM) system. While working to set in motion a PDCA cycle under this management system, we are pursuing risk management on a Group-wide basis through collaboration between our sustainability management system, renewed in 2020, and the ERM system.

Indices and Targets

We formulated our medium- to long-term goal for climate change, Asahi Carbon Zero, with the aim of achieving zero CO₂ emissions by 2050. In order to increase the probability of achieving this target, in December 2020 we upwardly revised our 2030 goal to a 50% reduction (compared with 2019). At the same time, we renewed our road map toward realizing Asahi Carbon Zero by promoting initiatives such as participating in RE100 and acquiring Science Based Targets (SBT) 1.5°C certification. In addition, we are establishing and implementing initiatives to realize the use of sustainable materials, such as agricultural raw materials, packaging, and water.



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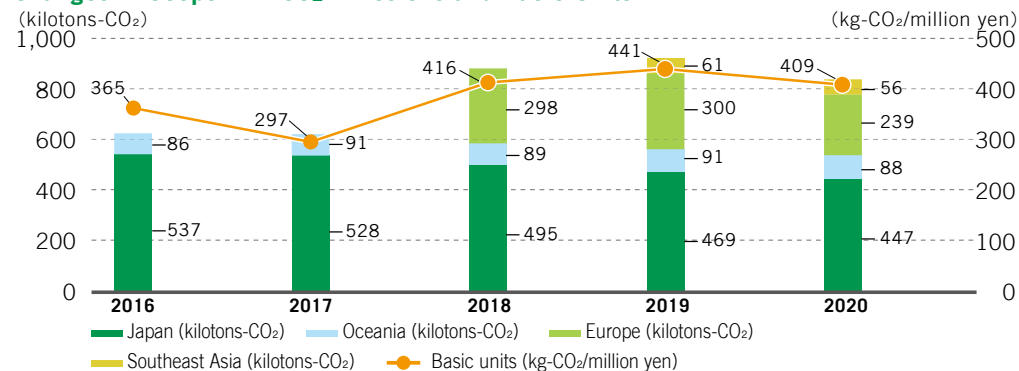
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Changes in Scope 1+2 CO₂ Emissions and Basic Units



- Notes: 1. Net sales in accordance with the International Financial Reporting Standards (IFRS) has been used for basic unit calculations since 2016.
 2. The area of analysis for CO₂ emissions outside Japan included only Oceania up to 2017, then Oceania and Europe as of 2018, and then Oceania, Europe, and Southeast Asia as of 2019.
 3. Scope of aggregation: Scope1+2 emissions from business operations within and outside Japan (Click here for more information. ▶▶▶)

CO₂ Emissions and Basic Units

| Item | 2016 | 2017 | 2018 | 2019 | 2020 |
|--|-------|-------|-------|-------|-------|
| Scope1 | 367 | 361 | 463 | 492 | 463 |
| Scope2 | 256 | 259 | 419 | 429 | 367 |
| Scope1+2 | 623 | 619 | 881 | 921 | 830 |
| Scope3*1 | 3,169 | 2,912 | 2,899 | 3,084 | 5,497 |
| Scope1+2 basic units (kg-CO ₂ /million yen)*2 | 365 | 297 | 416 | 441 | 409 |
| basic units (kg-CO ₂ e/kl) *3 | 79 | 81 | 75 | 78 | 72 |
| Scope 3 basic units (kg-CO ₂ /million yen) | 1,857 | 1,397 | 1,367 | 1,476 | 2,711 |
| Sales (billion yen) | 1,707 | 2,085 | 2,120 | 2,089 | 2,028 |

*1 Scope of aggregation: Only Asahi Breweries, Ltd., Asahi Soft Drinks Co., Ltd., up to 2019, then Asahi Breweries, Ltd., Asahi Soft Drinks Co., Ltd., Asahi Europe and International Ltd., Asahi Holdings (Australia) Pty Ltd, as of 2020. (Click here for more information. ▶▶▶)

*2 CO₂ emission basic unit of production per unit revenue

*3 CO₂ emission basic unit of production per kiloliter produced

Note: With the introduction of the Green Power CO₂ Reduction Certification System by the Japanese government in 2014, CO₂ emissions avoided by Tradable Green Certificates (TGC) can be used in calculations, reporting, and announcements of greenhouse gas emissions as stipulated in the Act on Promotion of Global Warming Countermeasures. From the 2014 results, we can also indicate CO₂ emissions reflecting the CO₂ emissions avoided by TGC. Note that the figures in this table only include the CO₂ emissions contributed by green energy.

Breakdown of Scope 3

Unit: kilotons-CO₂

| Category | 2016 | 2017 | 2018 | 2019 | 2020 |
|--|----------------|----------------|----------------|----------------|----------------|
| (1) Products and services purchased | 1,845 | 1,821 | 1,862 | 2,019 | 3,424 |
| (2) Capital goods | 314 | 141 | 98 | 109 | 78 |
| (3) Fuel not included in Scope 1 and 2 and energy-related activities | 61 | 60 | 60 | 71 | 132 |
| (4) Transportation and delivery (upstream) | 417 | 370 | 386 | 391 | 487 |
| (5) Waste generated in the business | 4 | 4 | 4 | 4 | 7 |
| (6) Business trip | 1 | 1 | 1 | 1 | 5 |
| (7) Commute of employees | 3 | 3 | 3 | 4 | 16 |
| (8) Lease assets (upstream) | Not applicable | Not applicable | Not applicable | Not applicable | Not applicable |
| (9) Transportation and delivery (downstream) | 143 | 137 | 138 | 144 | 351 |
| (10) Processing of sold products | Not applicable | Not applicable | Not applicable | Not applicable | Not applicable |
| (11) Use of sold products | 327 | 325 | 296 | 289 | 904 |
| (12) Disposal of sold products | 55 | 50 | 52 | 50 | 93 |
| (13) Lease assets (downstream) | Not applicable | Not applicable | Not applicable | Not applicable | Not applicable |
| (14) Franchising | Not applicable | Not applicable | Not applicable | Not applicable | Not applicable |
| (15) Investments | Not applicable | Not applicable | Not applicable | Not applicable | Not applicable |
| Total GHG emissions | 3,169 | 2,912 | 2,899 | 3,084 | 5,497 |

Notes: 1. CO₂ emissions from the assets being leased are excluded from (8) Lease assets (upstream) because they are counted in Scope 1+2.

2. No interim products exist and (10) Processing of sold products is not applicable.

3. The CO₂ emissions from the assets being leased are not applicable for (13) Lease assets (downstream), because they are counted in Scope 1+2.

4. (14) Franchising is not applicable because nothing applies to it.

5. (15) Investments are not applicable due to business characteristics.

6. Scope of aggregation: Only Asahi Breweries, Ltd., Asahi Soft Drinks Co., Ltd., up to 2019, then Asahi Breweries, Ltd., Asahi Soft Drinks Co., Ltd., Asahi Europe and International Ltd., Asahi Holdings (Australia) Pty Ltd, as of 2020

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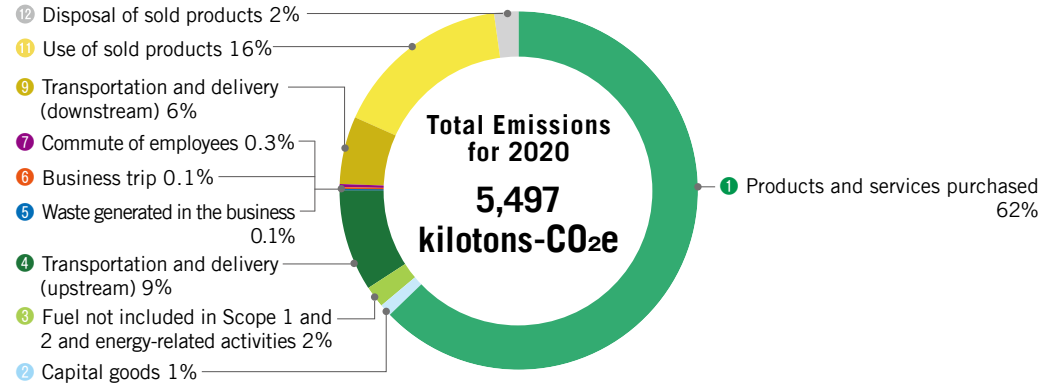
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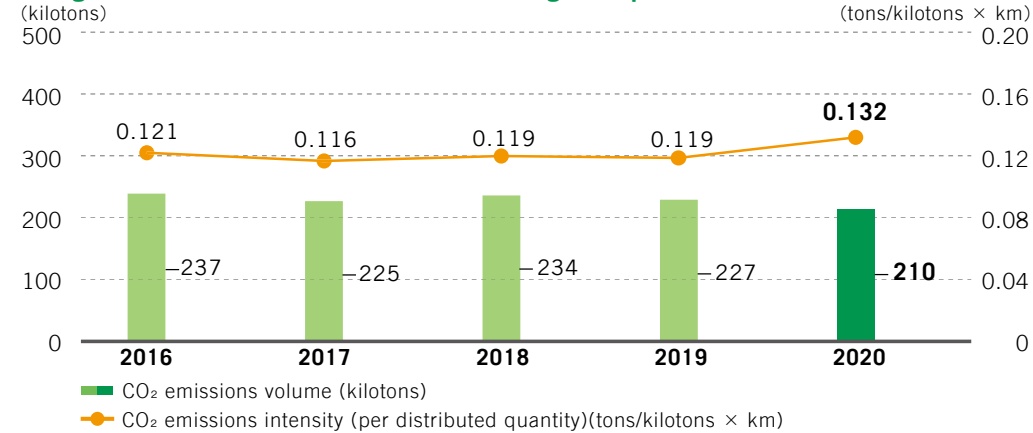
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2020 Scope 3 Greenhouse Gas Emissions



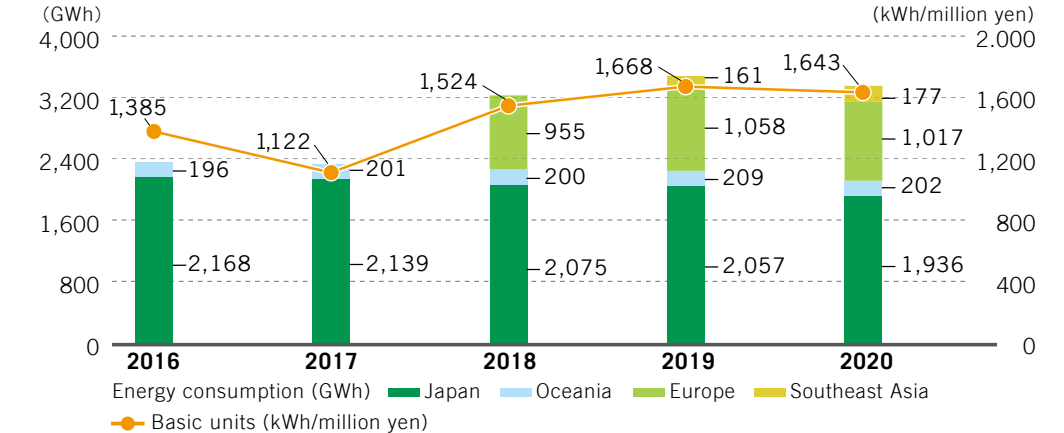
Notes: 1. Scope of aggregation: Asahi Breweries, Ltd., Asahi Soft Drinks Co., Ltd., Asahi Europe and International Ltd., Asahi Holdings (Australia) Pty Ltd
 2. Total value does not equal 100 as figures are rounded up.

Changes in the Volume of CO₂ Emissions During Transportation



Notes: 1. Changes in the volume of CO₂ emissions from transportation assigned by the Asahi Group as a cargo owner
 2. Scope of aggregation: Click here for more information. ▶▶▶

Changes in Energy Consumption and Basic Units



Notes: 1. Net sales in accordance with the International Financial Reporting Standards (IFRS) has been used for basic unit calculations since 2016.
 2. The area of analysis for energy consumption outside Japan included only Oceania up to 2017, then Oceania and Europe as of 2018, and then Oceania, Europe, and Southeast Asia as of 2019.
 3. Scope of aggregation: Click here for more information. ▶▶▶

Renewable Electricity Consumption

| | 2020 |
|---|------|
| Total renewable electricity consumption (GWh) | 113 |
| Percentage of renewable electricity consumption | 12% |

Note: Scope of aggregation: Click here for more information. ▶▶▶

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The Asahi Group operates businesses using blessings of nature, which means it is affected in many ways by abnormal weather due to climate change, such as drought caused by heat waves and flooding caused by typhoons and torrential rain. “Make Sustainable Use of Resources” is one of the objectives set based on the Asahi Group Environmental Vision 2050 as the Group aims to achieve zero environmental impact in its business activities (Neutral).

The Group will strive to minimize business risks and make effective use of limited resources in terms of raw material procurement—particularly in connection with agricultural products—containers/packaging, and water resources. At the same time, we will seek to help build a circular economy by promoting initiatives to reduce waste products and reuse by-products after adding new value to them.

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The Challenge

Abnormal weather conditions caused by climate change, such as heat waves and heavy rains, may greatly affect the yields or quality of agricultural raw materials. This could make it necessary for the Asahi Group to find new suppliers of agricultural raw materials such as grains and fruits, or find alternatives to these materials altogether. In order for the Group to continue its business activities, stable procurement of these raw materials while addressing these risks is essential. Furthermore, to maintain the environment of raw material production areas, consideration must be given to local ecosystems and human rights issues.

The Asahi Group will pursue the sustainable procurement of raw materials, striving to build mechanisms to secure agricultural raw materials without allowing them to be depleted, and ensuring that valuable blessings of nature are preserved for future generations.

Our Response

To pursue sustainable procurement of raw materials with due consideration for the global environment and local communities, the Asahi Group asks its raw material suppliers to comply with the Asahi Group Supplier Code of Conduct, and promotes procurement activities based on the Asahi Group Sustainable Procurement Principles, which set out commitments around respect for human rights and the environment.

The Asahi Group has identified the important agricultural raw materials for its Alcohol Beverages and Soft Drinks Businesses and begun assessing the environmental and human rights risks relating to these farm products and their places of origin. Once these risks surrounding raw materials are assessed, the Group gathers local information and takes appropriate action to address them. The Asahi Group is also committed to choosing the important agricultural raw materials it uses in its Food Business in a way that ensures that business's sustainability.

● Co-creation with Stakeholders

The Asahi Group assesses the risks in agricultural production areas that are likely to lead to environmental problems and promotes sharing risk information with the suppliers there. Particularly in production areas in Europe which grow barley and hops, important raw materials for our Alcohol Beverages Business, we engage in activities designed to ensure the stable production of high-quality raw materials while reducing the burden on the environment.

Additionally, while promoting farm support initiatives around the world, we collaborate with local stakeholders to promote sustainable procurement of raw materials through the development of agricultural materials utilizing by-products from manufacturing processes.

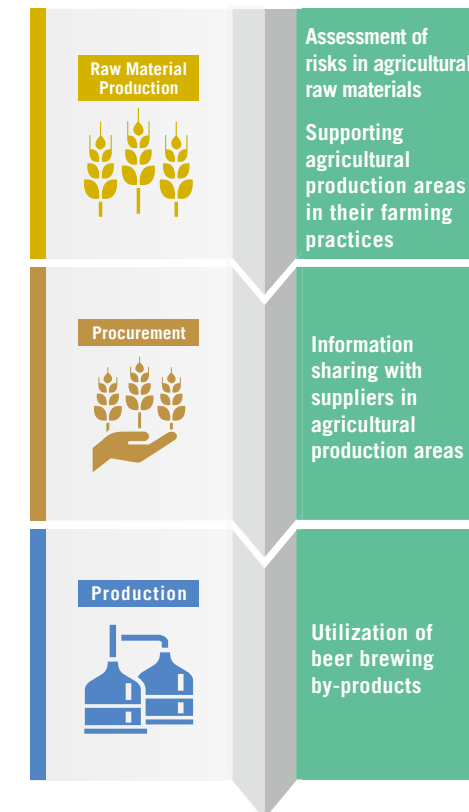
Our Goals

The Asahi Group pursues the procurement of raw materials without any associated environmental or human rights risks relating to farm products or production sites. We assess environmental risks from the perspectives of climate change, water risks, and biodiversity, and human rights risks from the perspectives of the environment and human rights in local communities and farms. We then examine the current risk profiles of our suppliers and take measures accordingly.

Social Impact

By addressing environmental risks that may greatly affect the yield or quality of agricultural raw materials, and promoting the sustainable procurement of raw materials, the Asahi Group aims to realize zero environmental impact (Neutral) in its business activities as set out in the Asahi Group Environmental Vision 2050, and helps drive sustainable agriculture in the areas where raw materials are sourced. Through these and similar initiatives, the Group will contribute to achieving SDG 12.

Sustainable Raw Material Procurement Initiatives in the Value Chain



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Initiatives Across the Value Chain

Heading icons are explained on page 34.

Raw Material Production



Supporting Italian Agriculture Through the Campus Peroni Project

In 2018, Birra Peroni S.r.l., an Italian company under the umbrella of Asahi Europe and International Ltd., co-founded the Campus Peroni project. This project aims to support productivity and sustainability in the farming of barley and other grains that make up the raw materials for brewing beer.

Campus Peroni is based on a partnership between Birra Peroni S.r.l., the Council for Agricultural Research and Economics (CREA), and agriculture departments at seven Italian universities. Organized around the two pillars of "sustainable cultivation of beer barley" and "100% Italian-grown malt," the project promotes research and innovation in the field of grain cultivation and provides training and networking opportunities for those in the agricultural sector.

Participating students learn about barley cultivation and sustainability through agricultural training in universities and visits to actual farms. During these visits, farmers take the lead in teaching students about barley cultivation techniques, the malting process, and contemporary farm managements. Moreover, agritech solutions are developed and tested with farmers to improve cultivation techniques and measure the environmental impact.

The project has been hailed as a superb model for building resilient networks to strengthen the beer brewing supply chain.

Goal: **100%** Italian-grown malt



Assessment of Risks in Agricultural Raw Materials

Agricultural Raw Materials (Important Raw Materials)

Alcohol Beverages Business

The Asahi Group has defined barley, corn, hops, and rice as important raw materials, as they are the main raw materials for *Asahi Super Dry*, the flagship brand of the Asahi Group, and researched the places where it procures raw materials and the places where raw materials are made, including nearly 150 regions around the world.

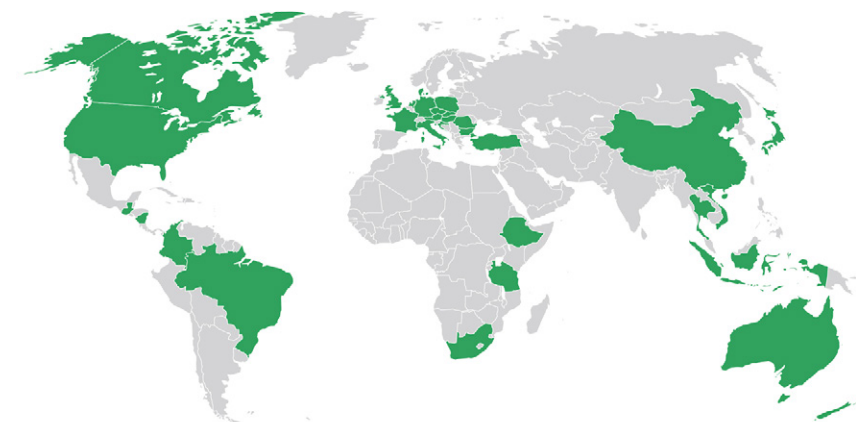
Soft Drinks Business

Based on the size and range of our procurement of agricultural raw materials in the Soft Drinks Business, the Asahi Group defined coffee, sugar (both sugarcane and sugar beet), corn, raw milk, skim milk, and whole milk powder as important raw materials and researched the places where it procures raw materials and the places where raw materials are made, including nearly 100 regions around the world.

Food Business

The Asahi Group is also committed to choosing the important agricultural raw materials it uses in its Food Business in a way that ensures the sustainability of the Food Business.

The Asahi Group Conducts Its Research Regarding the Important Agricultural Raw Materials of Its Alcohol Beverages and Soft Drinks Businesses in the Following Areas:



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Assessment of Risks in Agricultural Raw Materials

Assessment of Risks in Agricultural Raw Materials

Regarding agricultural raw materials, the Asahi Group has begun assessing the environmental and human rights risks surrounding farm products and their places of origin.

Environmental Risks

The Asahi Group has divided its actions regarding these risks into three categories: (1) the evaluation of the impact of climate change through scenario analyses required by Task Force on Climate-related Financial Disclosures (TCFD) recommendations, (2) water risk surveys evaluating impacts on water resources which are essential for the growth of farm products, and (3) the evaluation of the impact of continuous agricultural production activities on biodiversity.

(1) Impact of Climate Change

Consulting an array of materials, the Asahi Group estimates the change of the yields of its agricultural raw materials depending on a range of factors such as the rise in the average temperature (2°C and 4°C scenarios), changes in precipitation patterns, and the intensification of weather abnormalities.

Result of Evaluation in 2020

- Alcohol Beverages: The Asahi Group identified the possibility that climate change could significantly affect the agricultural raw materials that are important to its Alcohol Beverages Business. The Asahi Group found that the drop in yields of barley and corn, two agricultural raw materials, was larger in the 4°C scenario than in the 2°C scenario.
- Soft Drinks: The Asahi Group identified the possibility that climate change could significantly affect its Soft Drinks Business. In the 2°C scenario, yields of coffee and corn, two agricultural raw materials, could drop greatly, as much as 80% to 90% in some places. It was also learned that the drop in agricultural raw materials yields was larger in the 4°C scenario than in the 2°C scenario.

▶▶▶ Response to Task Force on Climate-related Financial Disclosures (TCFD)

(2) Impact on Water Resources (Water Risk Survey)

The Asahi Group conducts water risk surveys because water is its most basic raw material and is also necessary for the growth of farm products.

In places where farm products are grown, the Asahi Group assess risks relating to the quantity of water (water stress, seasonal variation, the lowering of groundwater levels, and other risks that may increase the difficulty of securing the water necessary to grow farm products), natural disaster risks (floods and droughts), and regulatory risks (risks of developing a reputation that may deeply impact the society, culture, or human rights of people living in the basin).

The amount of water consumed in the production of farm products is calculated on the basis of water footprint and the quantities of farm products procured by region and by raw material.

Result of Evaluation in 2020

- Alcohol Beverages: The barley-growing river basins in Europe may face flood risks. There may be latent regulatory risks in the corn-growing river basins of North America.
- Soft Drinks: The coffee-growing river basins in South America may face flood risks. There may be drought-related regulatory risks in Oceania where sugarcane is grown.

The Asahi Group will stay on top of information about the places of origin and suppliers that are likely to suffer from water risks by considering the water resources and environments in these areas.

▶▶▶ Assessment and Elimination of Water Risks

(3) Impact on Biodiversity

The Asahi Group evaluated the impact on ecosystems of continuous agricultural production activities, including the use of agrochemicals and fertilizers, and the burdens that animal excrement and other consequences of stockbreeding place on the natural environment.

Based on biodiversity hot spot data and other data, the Asahi Group also surveyed the biodiversity (the abundance of birds, mammals, and amphibians and the status of endangered species in a habitat) of the sites of its agricultural raw materials surveys.

Result of Evaluation in 2020

- Alcohol Beverages: Consideration of biodiversity in relation to the environmental burdens of agricultural production areas is necessary in the barley- and hop-growing river basins in Europe and the corn-growing lake areas in North America.
- Soft Drinks: Consideration of biodiversity in relation to the environmental burdens of agricultural production areas is necessary in the coffee-growing river basins of South America and in the northern Japanese river basins where skim milk and whole milk powder are produced, given that they are forest biospheres rich in nature.

The Asahi Group will continue to share information about the environmental risks faced by its suppliers as it works to stay on top of information about raw materials' places of origin and their surrounding areas in terms of, for example, the richness of their biodiversity.

Human Rights Risks

The Asahi Group continues to monitor its suppliers' actions regarding labor and human rights from the perspectives of the environment and human rights in local communities and farms. Please refer to our website for more details on human rights risks.

Our Human Rights Due Diligence Process

<https://www.asahigroup-holdings.com/en/csr/society/due-diligence.html> ▶▶▶

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Sustainable Containers/Packaging

The Asahi Group's Approach

The Challenge

The inappropriate disposal of plastic containers and packaging creates urgent social issues such as ocean pollution and impacts on ecosystems. At the same time, containers and packaging play an important role in the provision of products. In addition to maintaining quality, ensuring strength for transportation, and serving a communicative function through design and information display, containers and packaging are expected to be convenient to use and to utilize sustainable raw materials and resources.

Having defined its Approach to Sustainable Containers/Packaging as shown below, the Asahi Group is addressing the ocean plastic problem and promoting the use of containers and packaging that are friendly to the environment and society.

Our Response

The Asahi Group engages in activities to ensure its containers and packaging are more sustainable, striving to conserve resources as well as reduce the weight and improve the recyclability of its containers and packaging from a 3R (reduce, reuse, recycle) perspective. These efforts extend to all kinds of containers and packaging materials, including PET bottles, cans, glass bottles, caps, labels, and cardboard boxes. The Group also engages in innovation aimed to change the consumer behavior of throwing containers away after one use.

Regarding plastic containers and packaging in particular, the Asahi Group has adopted the "3R+Innovation" target and aims to create sustainable containers and packaging.

Approach to Sustainable Containers/Packaging

As a company engaged in the business that is built upon blessings of nature, the Asahi Group promotes "3R," that is, reducing, reusing, and recycling containers and packaging. We work with industry trade groups for materials that are used to make containers or packaging in order to work on joint technological development with suppliers. We assess the impact that each material has on the environment throughout its lifecycle in order to create lighter and more recyclable containers and packaging and use more recycled or other environmentally responsible materials, including biomass, thereby reducing our environmental impact.





Guidelines of Containers/Packaging Design

1. Ensure that each container/packaging is designed to preserve the quality of the product delivered to customers as well as to guarantee product safety and hygiene, and that it shows correct information.
2. Consider when customers buy and consume the product, and design each container/packaging to ensure it is safe and easy to handle.
3. Consider the ease of sorting and collection, disposability, and recyclability of each container/packaging after the product is consumed.
4. Work to create sustainable containers/packaging toward a circular economy.
5. Design each container/packaging to reduce environmental impacts through resource conservation, energy conservation, and reduction in greenhouse gases, among others, throughout the lifecycle from selling to recycling, while considering the economic efficiency, production suitability, and transport efficiency throughout the process from procurement and production to shipping.

Efforts to Create Sustainable Containers/Packaging

1. Reducing
 - Promote weight reduction of containers and packaging to reduce the amount of materials used
 - Simplify packaging and use appropriate packaging
2. Reusing
 - Make containers/packaging that can be reused as many times as possible
 - Design containers/packaging to reduce environmental impacts, including water and energy usage connected to reuse
3. Recycling
 - Adoption of recyclable materials for effective use
 - Use recycled and eco-friendly wherever possible
 - Aim to make sorting, separating, disposing of, collecting, and selecting each container/packaging easier after use

3R and Innovation Initiatives

| | |
|---|---|
| <p>Reduce</p>  | <p>Expanding unlabeled products</p> <p>Reducing the weight and complexity of containers and packaging</p> <p>Expanding the use of plant-derived materials in containers and packaging</p> |
| <p>Recycle</p>  | <p>Promoting the use of recycled materials</p> |
| <p>Reuse</p>  | <p>Promoting the collection and reuse of returnable containers</p> |
| + | |
| <p>Innovation</p>  | <p>Examining new sales methods that do not make use of plastic containers or packaging</p> |

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The Asahi Group's Approach

● Plastic Container and Packaging Initiatives

The Asahi Group considers efforts to reduce the environmental load of plastic containers/packaging essential as a means of contributing to building a recycling-based society and addressing climate change issues. We have therefore established Guidelines on Plastics to enable our employees to take specific actions in cooperation with our stakeholders.

Guidelines on Plastics

The Asahi Group contributes to resource circulation by delivering its products to consumers utilizing the beneficial features of plastic containers/packaging and following guidelines in response to environmental issues brought about by plastics.

1. We actively promote a switchover to eco-friendly materials*¹, without using fossil raw materials.
2. We reduce the usage of single-use plastics*² and consider developing alternative new materials and new ways of selling, leading to waste reduction.
3. We drive the establishment of recycling systems in cooperation with governments and trade associations, and actively lead educational programs, sorting of waste collection, and clean-up activities.

*1 Eco-friendly materials: Recycled materials, biomass materials, biodegradable materials, and others

*2 Single-use plastics: Plastics that are disposed of after use and not reused

● Co-creation with Stakeholders

To promote the 3R (reduce, reuse, recycle) approach in containers and packaging, the Asahi Group has worked with industry and other groups for each kind of container or packaging material, and created lighter and more recyclable containers and packaging through joint technological development with suppliers. Around the world, the Group promotes both container recycling activities for customers and clean-up activities for employees to raise awareness of the importance of 3R. The Group also collaborates with corporations in other industries to create innovation.

Our Goals

In containers and packaging, with regard to the urgent problem of plastics in particular, the entire Asahi Group has adopted the “3R+Innovation” target. Based on this target, the companies of the Asahi Group set their own targets, such as the Asahi Soft Drinks Co., Ltd.'s “Containers and Packaging 2030” initiative.

Groupwide Targets [3R + Innovation]

- Realize 100% utilization of materials for plastic containers that can be used effectively by 2025*¹
- Begin examinations for achieving a 100% conversion to eco-friendly materials for plastic containers by 2030*²
- Examine the development of eco-friendly materials and sales methods that do not make use of plastic containers*³

Note: Targeted containers: PET bottles, plastic bottles, caps used for PET and plastic bottles, certain plastic containers, and plastic cups (used for sales), etc.

*1 Effective use: Reusable, recyclable, compostable, thermal recyclable, etc.

Target companies: Asahi Breweries, Ltd., Asahi Soft Drinks Co., Ltd., and Asahi Holdings (Australia) Pty Ltd

*2 Eco-friendly materials: Recycled materials, biomass materials, biodegradable materials, etc.

*3 Target companies: Asahi Breweries, Ltd., Asahi Soft Drinks Co., Ltd., Asahi Europe and International Ltd., Asahi Holdings (Australia) Pty Ltd, and Asahi Holdings South East Asia.

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Containers and Packaging 2030 (Asahi Soft Drinks Co., Ltd.)

| Key Strategies | Goals (KPIs) and Activities Aimed at Achieving Them |
|---|---|
| Use recycled PET and other eco-friendly materials | Aim to utilize recycled PET, plant-derived materials, and/or other eco-friendly materials for 60% of the weight of all plastic containers and packaging (PET bottles, labels, caps, plastic bottles) by 2030. |
| Reduce containers and packaging | Aim to reduce the volume of plastic containers and packaging used, such as by increasing the use of unlabeled bottles. |
| Develop new eco-friendly containers | Aim to research and develop containers made from materials other than plastic, and other new eco-friendly materials. |

Social Impact

By making its containers and packaging lighter and more recyclable, and through initiatives making use of eco-friendly materials such as recycled materials and biomass materials, the Asahi Group aims to realize zero environmental impact (Neutral) in its business activities as set out in the Asahi Group Environmental Vision 2050. Through the development of new eco-friendly materials and the expansion of sales methods that do not use plastic containers or packaging, the Group will also contribute to reducing ocean pollution and effects on ecosystems due to plastic outflow. Additionally, through these and similar initiatives, the Group will contribute to achieving SDGs 12 and 14.



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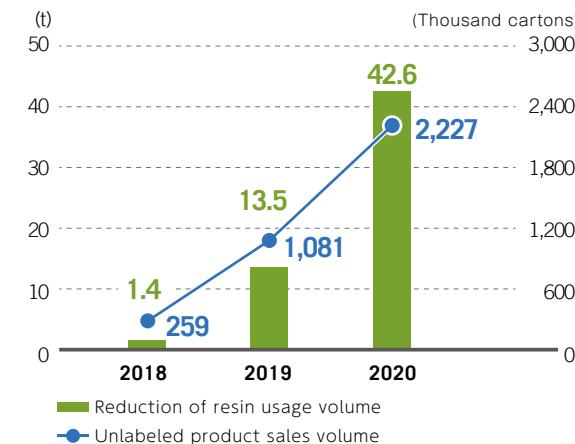
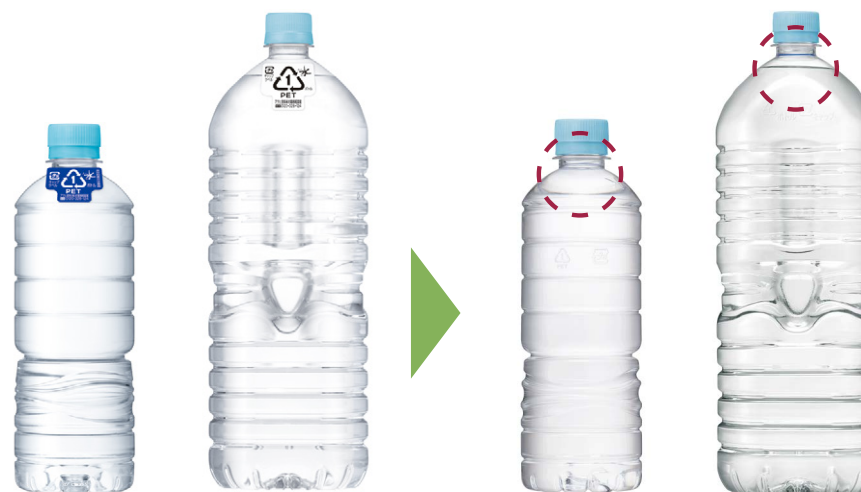
Expanding the Sales of Unlabeled Products

Asahi Soft Drinks Co., Ltd. has been expanding the sales of unlabeled products. Eliminating the use of labels on PET bottles reduces by nearly 90% the amount of resin used to make labels. This also helps save the time for removing labels when sorting waste and improves customer convenience while at the same time being environmentally considerate, so that the unlabeled products are effortlessly eco-friendly. In 2018, the company commenced selling *Asahi OISHII MIZU Unlabeled PET Bottle*, which is sold by the carton only. Making three more products unlabeled, including *Asahi JUROKUCHA*, increases to seven the product types sold in unlabeled bottles, with the sales of such bottles exceeding 2.2 million cartons. The system for labelling containers for identification was changed, enabling the company to make a complete shift for some products from using tack sticker labels to printing the recycling symbol directly on the bottle.

Our unlabeled products were highly evaluated in terms of their contribution in reducing ocean plastics, and were exhibited at the 2019 G20 Osaka Summit as part of the Japanese government's publicity exhibition.

Furthermore, in 2021, 585-milliliter PET bottles of *Asahi OISHII MIZU* with a simple eco-label went on sale as individually saleable unlabeled products on a trial base at stores and some vending machines in limited areas of East Japan. A small tack sticker (simple eco-label) indicating the necessary information is affixed to one side of a bottle, instead of the roll label conventionally used for *Asahi OISHII MIZU*. This makes it possible to reduce the CO₂ emissions from labels by nearly 58%.

Sales of unlabeled products: **2.2 million cartons (2020)**



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3R and Innovation Initiatives



Eliminating Plastic from Canned Product Packaging

In 2020, Koninklijke Grolsch—Asahi Europe and International Ltd.—switched the packaging for six-packs of *Grolsch*, a Dutch beer brand, from plastic shrinkable film to Topclip, a cardboard-based packaging material that uses FSC-certified raw materials and is 100% recyclable. Switching all *Grolsch* six-packs sold in the Dutch market to Topclip packaging will reduce the amount of plastic used annually by an estimated 100,000 kilograms, equivalent to 4 million plastic bags.

In 2019, Carlton & United Breweries Pty Ltd, a company under the umbrella of Asahi Holdings (Australia) Pty Ltd, ceased all use of plastic rings and shrinkable film to package canned products. This project removed more than 30 million plastic rings and 248 tons of plastic shrinkable film from our packaging portfolio.



Annual reduction in plastic: Equivalent to **4 million plastic bags**



Expanding the Use of Plant-Derived Materials in Packaging

Since 2015, Asahi Soft Drinks Co., Ltd. has sold limited quantities of *MITSUYA CIDER* in 1.5-liter PET bottles that use plant-derived materials. By 2020, the company was using plant-derived materials in some of its PET bottles, caps, and inks used to print labels, and selling these in limited quantities. Furthermore, biopolyethylene derived from plants makes up 10% of the raw materials used to make plastic bottles for *CALPIS*. *Asahi OISHII MIZU* (all varieties except *Fujisan-no-Vanadium Tennensui*) and *Asahi JUROKUCHA*, which was relaunched in 2021, are packaged in PET bottles with labels printed using plant-derived ink.



Every part of the *MITSUYA CIDER* 1.5-liter PET bottle uses some plant-derived materials. The biomass mark on the label indicates the use of raw materials derived from plants.



Promoting the Collection and Reuse of Returnable Containers

The Asahi Group strives to promote the recycling of used glass bottles as a member of the Glass Bottle 3R Promotion Association. The Group has its own systems for collecting, washing, and reusing the many returnable containers such as glass bottles and barrels used by liquor stores and restaurants. In 2020, Asahi Breweries, Ltd. collected and reused 239 million containers, and Asahi Soft Drinks Co., Ltd. collected and reused 86 million containers. The Group's returnable bottle recovery rate for the past three years reached 100%. Bottles that are no longer usable are processed into cullet for use as raw material in glass bottles and other items.



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3R and Innovation Initiatives

Recycle



Initiatives to Ramp Up the Introduction of Recycled PET Bottles

The Asahi Group promotes the use of recycled and other eco-friendly materials as part of the Group-wide target of 3R+Innovation in relation to the plastic problem. The Group's Soft Drinks Businesses in Japan and Australia in particular use a large number of plastic containers, and are ramping up the introduction of recycled PET bottles.

In 2019, Asahi Soft Drinks Co., Ltd. began using recycled PET bottles for some of its lactic beverages such as *CALPIS WATER*.

Subsequently, the use of recycled PET bottles was expanded to include the *MITSUYA* brand, *WILKINSON TANSAN*, and other carbonated beverages that require pressure-resistant bottles. Since 2021, recycled bottles have also been used for some *Asahi JUROKUCHA* bottles.

Asahi Holdings (Australia) Pty Ltd has invested in blow-filling technology for in-house production of PET bottles, facilitating the development of lighter bottles and encouraging adoption of recycled bottles. The company is currently transitioning to 100% recycled PET resin for its mineral water brand *Cool Ridge*. This enables the use of 100% recycled PET bottles that reduce CO₂ emissions to approximately half of the emissions of conventional bottles. For some products, the company has succeeded in reducing CO₂ emissions by 32% in the overall product lifecycle, from manufacturing to refrigeration and sales.



Promoting Initiatives Through Collaboration with Stakeholders

Partnerships with a range of stakeholders are essential to resolving social issues. The Asahi Group collaborates with organizations including governmental bodies, industry groups, and other businesses to reinforce its initiatives to resolve the plastic problem.

Cooperating on the Expansion of "Bottle-to-Bottle" in Japan

Asahi Soft Drinks Co., Ltd. is working on plans to use chemical recycled PET resin by financing the bottle recycling company JEPLAN, Inc. to help its subsidiary PET Refine Technology Co., Ltd., resume factory operations. Chemical recycling is a technology to remove impurities (after selecting, crushing, and washing collected used PET bottles) and then chemically decompose them into intermediate raw materials so that they can be refined to be converted into new PET resin. The ability to reuse end-of-use PET bottles again and again reduces the amount of petroleum consumed in production, thus contributing to limiting CO₂ emissions.

The Japan Soft Drink Association, with which Asahi Soft Drinks Co., Ltd. is affiliated, has announced plans to increase the ratio of "bottle-to-bottle" or horizontal recycling of PET bottles to 50% by 2030, in order to promote recycling initiatives in the soft drink industry. The company will promote the introduction of its own recycled PET bottles and actively engage in industrial cooperation to achieve the target ratio.

Ramping Up Recycled PET Bottle Use in Australia

In 2020, Asahi Beverages Pty Ltd, a company under the umbrella of Asahi Holdings (Australia) Pty Ltd, signed a joint venture agreement with Pact Group Holdings Limited and Cleanaway Waste Management Limited to jointly build a facility in southeastern Australia to produce the raw materials for recycled PET bottles. The facility is scheduled to be complete by the end of 2021, and is designed to recycle the equivalent of around 1 billion 600 ml PET bottles each year. This represents an increase in the annual volume of recycled locally sourced PET from current levels of around 30,000 tons to over 50,000 tons. The initiative is expected to reduce Australia's reliance on virgin plastic, plastic waste exports, and recycled plastic imports. Furthermore, the facility will also have on-site solar panels installed.

This joint project has received around AU\$5 million in support from the NSW Environmental Trust, which supports projects that address environmental issues as part of the New South Wales government's "Waste Less, Recycle More" initiative.

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Reuse



Innovation



Tumbler in the Forest: A Plant Fiber Eco-Cup

Carelessly discarded plastic is a threat not just to marine life but to the entire global ecosystem. Most of this plastic comes from containers and packaging. In Japan alone, 11 billion plastic cups are used and thrown away every year, mostly at venues like concert halls and sports arenas. As part of the Asahi Group's mission as a manufacturer and seller of food and beverages to help resolve this global issue, Asahi Breweries, Ltd. decided to develop a reusable cup that consumers would embrace not just for environmental reasons but because using it offered a better experience.

Shortly afterward, the company learned of Panasonic Corporation's molded high-density cellulose fiber at a technology exchange meeting among corporations. Primarily made from pulp refined from timber extracted during forest thinning, the material is strong, heat-resistant, and highly moldable—perfect for reusable cups.

In 2018, the two companies began a joint development project. Asahi Breweries, Ltd. put its expertise in manufacturing containers to use designing the tumbler's shape, aiming for the kind of smooth rim found on the extremely thin-walled glasses preferred by beer drinkers. The design called for walls as thin as 1 millimeter in places, but Panasonic Corporation's superior molding technology proved up to the challenge.

In 2019, the long-awaited tumbler made its debut under the name "Tumbler in the Forest." Pilot sales at sporting events and other gatherings showed drastic reductions in plastic waste. Surveys found that more than 90% of attendees were satisfied with the tumbler. The COVID-19 pandemic put a stop to full-scale rollout plans for 2020, but the tumbler is enjoying brisk sales online, with approximately 15,000 sold to date indicating rising interest among consumers.

We look forward to incorporating plant-derived materials at an increasing rate, as well as using more timber from forest thinning in the regions we work with, in our efforts to promote environmental sustainability.

• Major Award

- iF Design Award 2020 (International Forum Design GmbH/Hannover, Germany)
- Consumer Judges Award, 7th Social Products Awards 2020 (Association for the Promotion of Social Products)
- Commendation for Contributors to the Formation of a Circular Economy (Ministry of the Environment)

Mogu-cup: The Cup You Can Eat



The "Tumbler in the Forest" project sought to change consumer behavior by offering a better alternative to disposable cups. Looking for its next challenge, Asahi Breweries, Ltd. decided to take the next step and develop an *edible* cup. Not only would this produce zero waste, it would also reduce water use, since no washing would be required. Impressed by the edible plates sold by Marushige Seika Co., Ltd., Asahi Breweries, Ltd. reached out to the snack maker in 2019 to propose a joint development project.

The design requirements for an edible cup are unique. It must be thick enough to hold liquid for extended periods, but not too bulky to finish eating. With experimentation, the two companies found that baking potato starch at high pressures and temperatures could produce a cup that was thin yet tough and highly resistant to moisture.

In 2021, the "Mogu-cup" was born. ("Mogu" is a pun on *mogu mogu*, Japanese onomatopoeia for chewing.) The first-year sales target of 10,000 cups was reached in two months. Four flavors are available: plain, shrimp, chocolate, and mixed nuts. One of the reasons for its popularity is that consumers are able to enjoy the combination of the beverage or food and the cup's own flavor.

The "Tumbler in the Forest" and the "Mogu-cup" have successfully helped begin to shift consumer behavior away from single-use plastic cups, reducing both CO₂ emissions and plastic waste.



Tumbler in the Forest
Material: Cellulose fiber
newly developed by
Panasonic

Tumbler in the Forest: HINOKI
Material: Japanese hinoki
cypress timber from forest
thinning

Tumbler in the Forest: MUGI
Material: Roasted malt husks
from Asahi Beer Malt Co., Ltd.



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The Challenge

Water shortages are occurring on a global level. Due to increased demand for water from an expanding global population and economic activity in developing countries, droughts caused by climate change, and other environmental factors, the water resource issue has become a worldwide social challenge. What is more, ever-growing global demand for water is anticipated to cause water shortages in more countries and regions as time goes on.

For the Asahi Group, which makes use of blessings of nature in its business activities, water is an indispensable and valuable resource as well as a precious part of the global environment. We strive to achieve sustainable water resources management to preserve the blessings of nature for future generations.

Our Response

The Asahi Group has established three goals for the utilization of sustainable water resources: Reduction in Water Use, Assessment and Elimination of Water Risks, and Realization of Water Neutrality. Initiatives are underway accordingly.

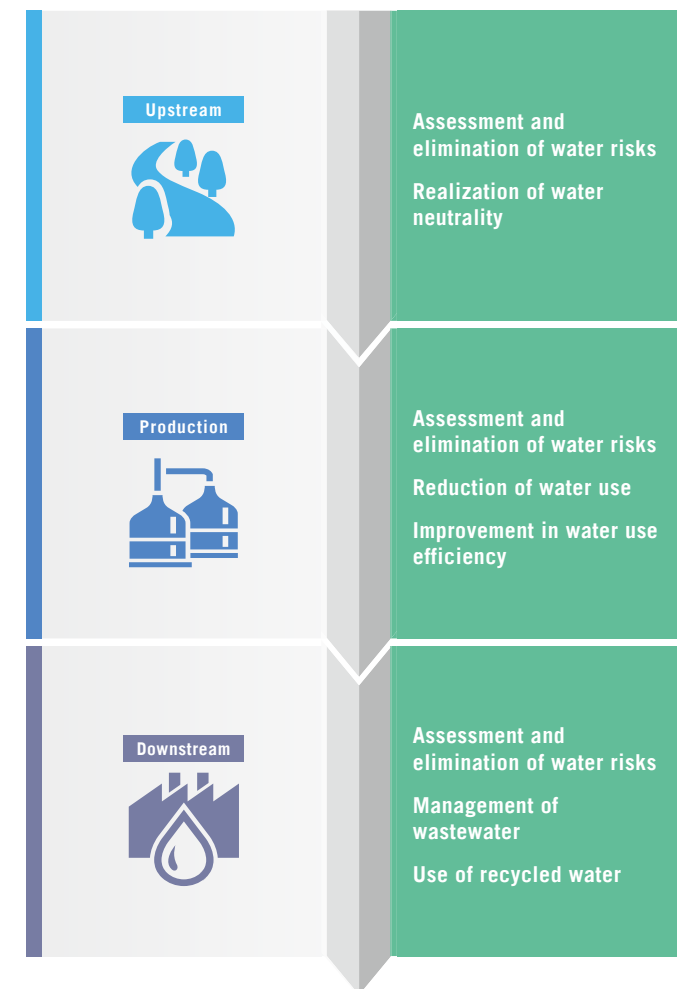
We have undertaken diverse activities to reduce our water consumption, with a target basic unit of water consumption of 3.2 m³ or less for every kiloliter of alcoholic beverages or soft drinks manufactured at the factories of Group companies. All our facilities are committed to enhancing water use efficiency. Methods employed include cascading recycling systems to allow water to be reused at different stages and for multiple purposes, and appropriate response and control measures to minimize the environmental burden of water intake and wastewater output processes. Furthermore, since our products are made using a wide variety of farm products grown at our production bases and other sites around the world, we consider it imperative to identify the water risks associated with these products and strive to assess and eliminate them.

The Asahi Group has set the target of achieving water neutrality in its Alcohol Beverages Business by 2025. This is defined as when the amount of water used in our Japanese beer factories can be fully conserved and replenished by the Group-owned Asahi Forest.

● Co-creation with Stakeholders

The Asahi Group is actively working toward the conservation of sustainable water resources, actively employing methods such as water resource management not only in its business activities but also across the entire supply chain. Based on the results of our supplier CSR questionnaire, since 2017 we have interviewed our suppliers about water risks when conducting supplier quality audits. We will strive to manage water resources in agricultural areas in cooperation with our suppliers.

■ Sustainable Water-Use Initiatives at Each Stage of the Value Chain



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The Asahi Group's Approach

Our Goals

The Asahi Group aims to ensure that all facilities of its major companies only use sustainable water resources.

To this end, the Asahi Group set a water consumption rate reduction target for the alcoholic beverage and soft drink factories of the major companies of the Group. Forty-eight production sites run by the applicable operating companies have drawn up water management plans and are striving to reduce water use. The Asahi Group conducts water risk surveys to identify and respond to risks, and also expand the area of the Group-owned Asahi Forest it administers in pursuit of water neutrality at its beer factories in Japan.

Three Targets for the Sustainable Utilization of Water Resources

| | |
|--|--|
| Group-wide Targets for Water Resources | Achieve a basic unit of water consumption of 3.2 m ³ /kl or less by 2030* ¹ |
| Assessment and Elimination of Water Risks | Regular implementation of water risk surveys to ensure the sustainability of our water resources (Survey frequency: Once every five years) |
| Realization of Water Neutrality | Leverage Asahi Forest to realize water neutrality at beer factories in Japan by 2025* ² |

*¹ Target companies: Asahi Breweries, Ltd., Asahi Soft Drinks Co., Ltd., Asahi Europe and International Ltd., Asahi Holdings (Australia) Pty Ltd, and Asahi Holdings South East Asia.

*² Water consumption at beer factories in Japan will be streamlined and reduced, and the amount of water replaced and stored through the preservation of Asahi Forest, the Group-owned forest in Hiroshima, will be increased so that water consumption is equal to the amount of water replaced and stored by Asahi Forest by 2025 (target for the expansion of Asahi Forest: 365 hectares by 2025).

Social Impact

By promoting sustainable water resource management through its efforts to reduce water consumption during manufacturing, identify and manage water risks, and achieve water neutrality, the Asahi Group aims to realize zero environmental impact (Neutral) in its business activities as set out in the Asahi Group Environmental Vision 2050, thereby helping resolve the global water shortage problem. Through these and similar initiatives, the Group will contribute to achieving SDG 6.



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Initiatives Across the Value Chain

Heading icons are explained on page 44.

Upstream



Achieving Water Neutrality Utilizing Group-owned Asahi Forest

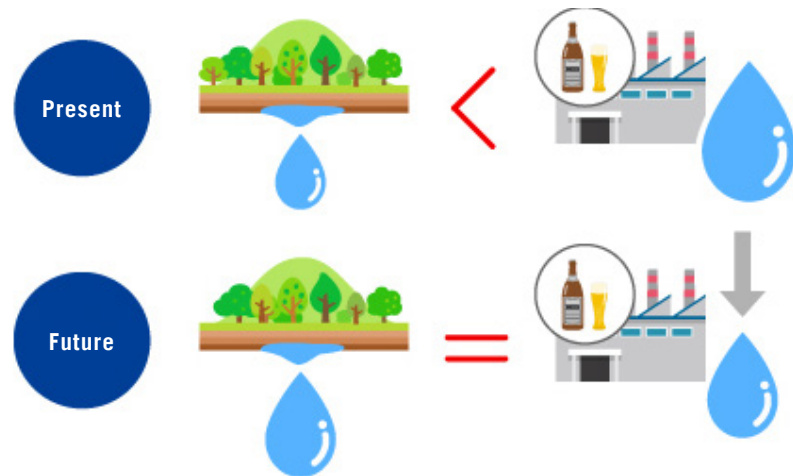
By 2025, the Asahi Group will achieve water neutrality, equalizing the amount of water used in its Japanese beer factories and the amount of water replaced and stored* of the Group-owned Asahi Forest in Hiroshima Prefecture.

The entire area of Asahi Forest is designated a headwaters conservation forest under the Forest Act. In 2019, its groundwater recharge amount was estimated at 9.67 million cubic meters per year based on expert opinion. In 2020, the area of Asahi Forest administered by the Group increased approximately 14% to 2,467 hectares and the groundwater recharge amount to 11.01 million cubic meters.

The annual amount of water consumption at the Group's Japanese beer factories in 2019 was approximately 11.60 million cubic meters. This means that nearly 95% of this water consumption is already being returned to the Earth through Asahi Forest. The Asahi Group will continue to reduce the amount of water consumed by its factories and expand the area of Asahi Forest that it administers with the goal of returning 100% of the water consumption of its beer factories in Japan to the Earth by 2025 and achieving water neutrality.

* Groundwater recharge amount: Taking into consideration the multifaceted functionality of the forest, the Asahi Group has redefined this term as "the amount of water that can be consistently supplied as groundwater and used by local people, animals, and plants."

Groundwater recharge amount: **11.01 million m³**



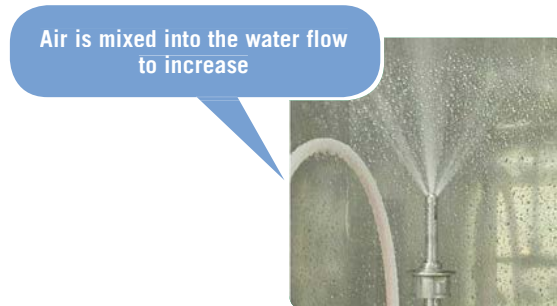
Production



Reducing Water Use with Air-Induction Nozzles

Asahi Soft Drinks Co., Ltd. has developed an air-induction nozzle to reduce water use in the process of

cleaning PET bottles and caps before the bottles are filled with beverages. The nozzle's shape and water flow rate are modified to mix air with the injected water, reducing water use by 60 to 75% compared to previous models while achieving superior cleaning performance.



Air is mixed into the water flow to increase

Air induction nozzle

60–75% reduction



Previous model New model

60% or more reduction in water use plus superior cleaning performance

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Initiatives Across the Value Chain

Downstream



Water Recycling at Yatala Brewery

Carlton & United Breweries Pty. Ltd. (CUB)'s Yatala Brewery, a company under the umbrella of Asahi Holdings (Australia) Pty Ltd, produces high-quality recycled water from the brewing process.

In the past, wastewater at the Yatala Brewery was pre-treated in an anaerobic plant and discharged to the sewer, but the need arose to reduce wastewater as its volume increased in proportion to expanding production. To address this issue, CUB constructed a water recycling facility within Yatala Brewery that can generate 100 cubic meters of recycled water per hour. The facility uses a bioreactor to remove organic matter and filters to remove solids along with microfiltration, reverse osmosis, disinfection, and other methods to treat wastewater and produce recycled water.

This recycled water is used in various settings within the manufacturing process (excluding any processes that come into contact with the product), such as cleaning steam generators and production tanks, as well as creating steam used for heat sterilization. In this way, the company is working to reduce the amount of valuable water resources that it consumes.

In addition, by reviewing its manufacturing processes, CUB is taking steps to reduce the total volume of water used. For example, reducing the amount of water used for cleaning within the changeover process to manufacture products, as well as optimizing the washing cycle for production lines and plumbing.

Through these efforts, Yatala Brewery has realized a high level of water use efficiency, using on average only 2 cubic meters of water to manufacture 1 kiloliter of product. This makes it one of the world's most water-efficient breweries.

Recycled water produced: **100**m³ per hour



Upstream



Downstream



Water on Wheels Program to Provide Recycled Water

Carlton & United Breweries Pty. Ltd. (CUB), a company under the umbrella of Asahi Holdings (Australia) Pty Ltd, has teamed up with major Australian transport company Booth Transport Pty Ltd to provide water to farmers suffering from drought through the "Water on Wheels" program.

Under this program, specially treated and recycled water from the brewing process at CUB's Yatala Brewery, the largest beer-producing plant in Australia, is supplied by Booth Transport Pty Ltd to drought-stricken farmers. The water is transported using the Booth Transport Pty Ltd tankers normally used to transport beer and cider.

This is a logical focus for CUB's disaster-relief efforts and sees it support regional Australian communities that have always supported CUB.



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Assessment and Elimination of Water Risks

The Asahi Group's products are made using a wide variety of farm products grown at its production bases and all over the world. It is imperative that the Asahi Group completely identify the water risks in these products, and the Asahi Group strives to identify and eliminate these risks.

Water Risk Survey at Production Sites

The Asahi Group's assessments of water risks at its production sites make use of WRI Aqueduct—world maps and data provided by the World Resources Institute (WRI) to show water risks—to identify geographic areas with high-level drought and other water risks for each production site. Areas where the overall water risk is identified by WRI Aqueduct as “extremely high” are defined as areas with high overall drought and other water risks. The Group makes its assessments accordingly.

Among the Asahi Group's production bases that manage environmental data, one plant in Indonesia has been identified as extremely high-risk as of 2020. Since 2019, we have collected data including the amount of water consumed at the plant and have been discussing actions to address risks.

We also found that, based on an assessment of water stress risks (the degree of stress between water supply and demand) alone, two of our production plants in Italy also qualify as extremely high-risk. We have examined survey results for past water risk (vulnerability) surveys in Europe and begun considering possible countermeasures against such risks.

At production sites in Japan, no sites were found to be high-risk under the above water risk assessment criteria. However, we have now started conducting our own more detailed water risk (vulnerability) surveys, which include not only water stress risks but also flood risks relating to climate change, at Asahi Group production plants and in their surrounding drainage basins. We conducted these surveys at two plants in Japan during 2020, and plan to conduct further surveys of production sites in Oceania and other regions in the future.

Going forward, we will continue to regularly survey our production sites and raw material suppliers using tools such as WRI Aqueduct to examine water risks. If any of our production sites are found to have a high level of water risk, we will take appropriate measures in accordance with specific details of the risk and social circumstances in the area.

Conducting Water Risk Surveys in Raw Materials Procurement

Water is an indispensable raw material for the Asahi Group and also necessary for growing farm products. The Group assesses water quantity risks (risks of water stress, seasonal variation, lowering of groundwater levels, and other phenomena that pose difficulties for securing the necessary amounts of water for the growing of farm products) and natural disaster risks (flood and drought risks) faced by the places of origin of its farm products.

▶▶▶ Assessment of Risks in Agricultural Raw Materials

Conducting Supplier Water Risk Surveys

Water risk surveys around raw materials procurement led to the identification of the need to examine water risks on-site. Since 2017, we have interviewed our suppliers regarding the state of water risks when conducting supplier quality audits.

Supplier Water Risk Survey <https://www.asahigroup-holdings.com/en/csr/community/procurement.html> ▶▶▶

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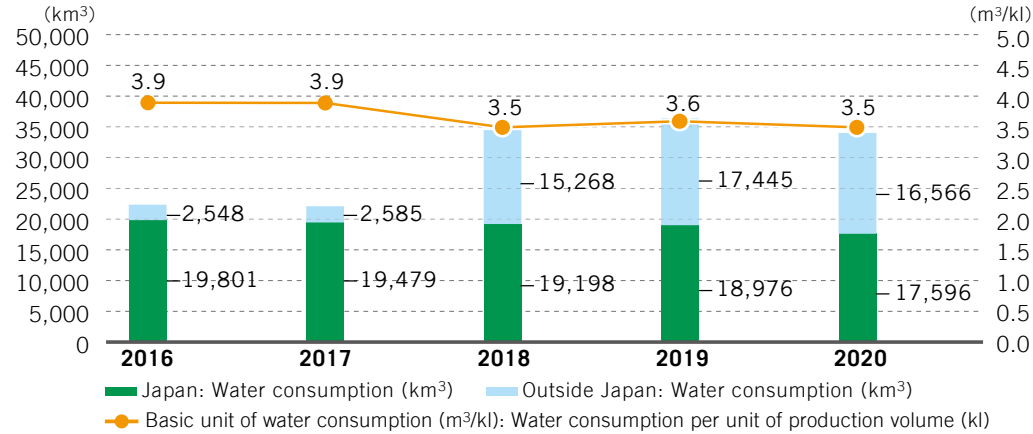
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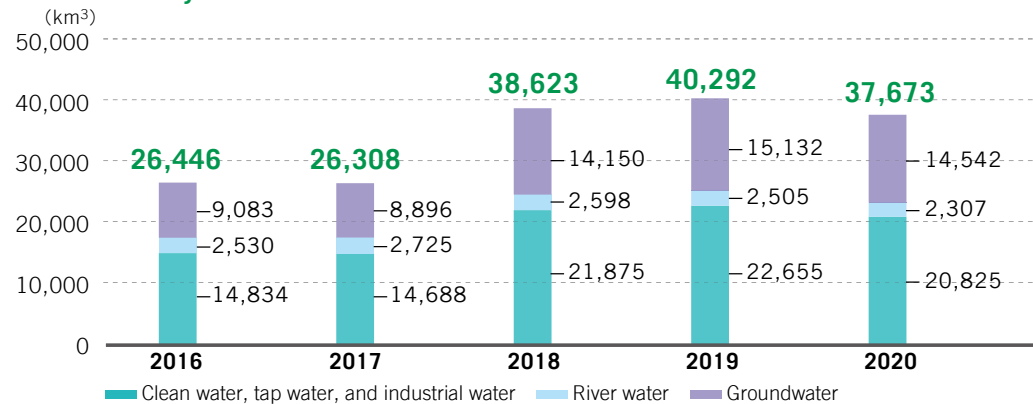
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Water Consumption and Basic Units Used in Alcohol Beverages Business and Soft Drinks Business



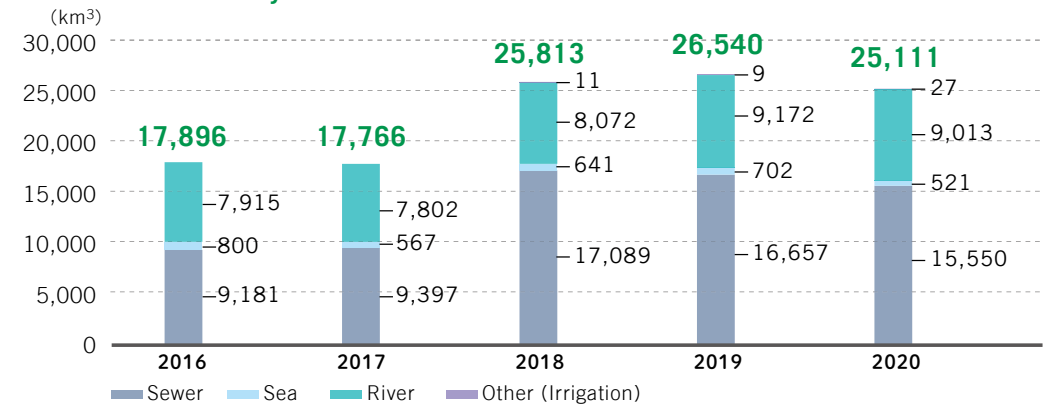
Notes: 1. Figures up to and including 2017 include Japan and Oceania.
 2. Figures for 2018 include Japan, Oceania, and Europe.
 3. From 2019, figures include Japan, Oceania, Europe, and Southeast Asia.
 4. Scope of aggregation: Click here for more information. >>>

Water Intake by Water Source



Notes: 1. From 2018, the Asahi Group discloses data about the Group's water consumption and wastewater output, which has been verified by a third party.
 2. Scope of aggregation: Click here for more information. >>>

Wastewater Amount by Destination of Wastewater



Note: Scope of aggregation: Click here for more information. >>>

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The Challenge

The growth in global population and economic activity has increased both the demand for resources and energy and the amount of waste produced by society, aggravating environmental impacts. If the current economic system based on mass production, mass consumption, and mass disposal continues unchanged, resource depletion and environmental pollution due to increasing waste will only accelerate. Building a circular economy through effective use of resources and reduction of waste is a pressing issue to be addressed across all industries.

Because various types of waste and by-products are generated in its product manufacturing processes, the Asahi Group considers efficient use of resources and waste reduction important issues. As such, the Group aims to develop a circular economy in which the consumption of natural resources is brought under control and environmental burdens are minimized.

Our Response

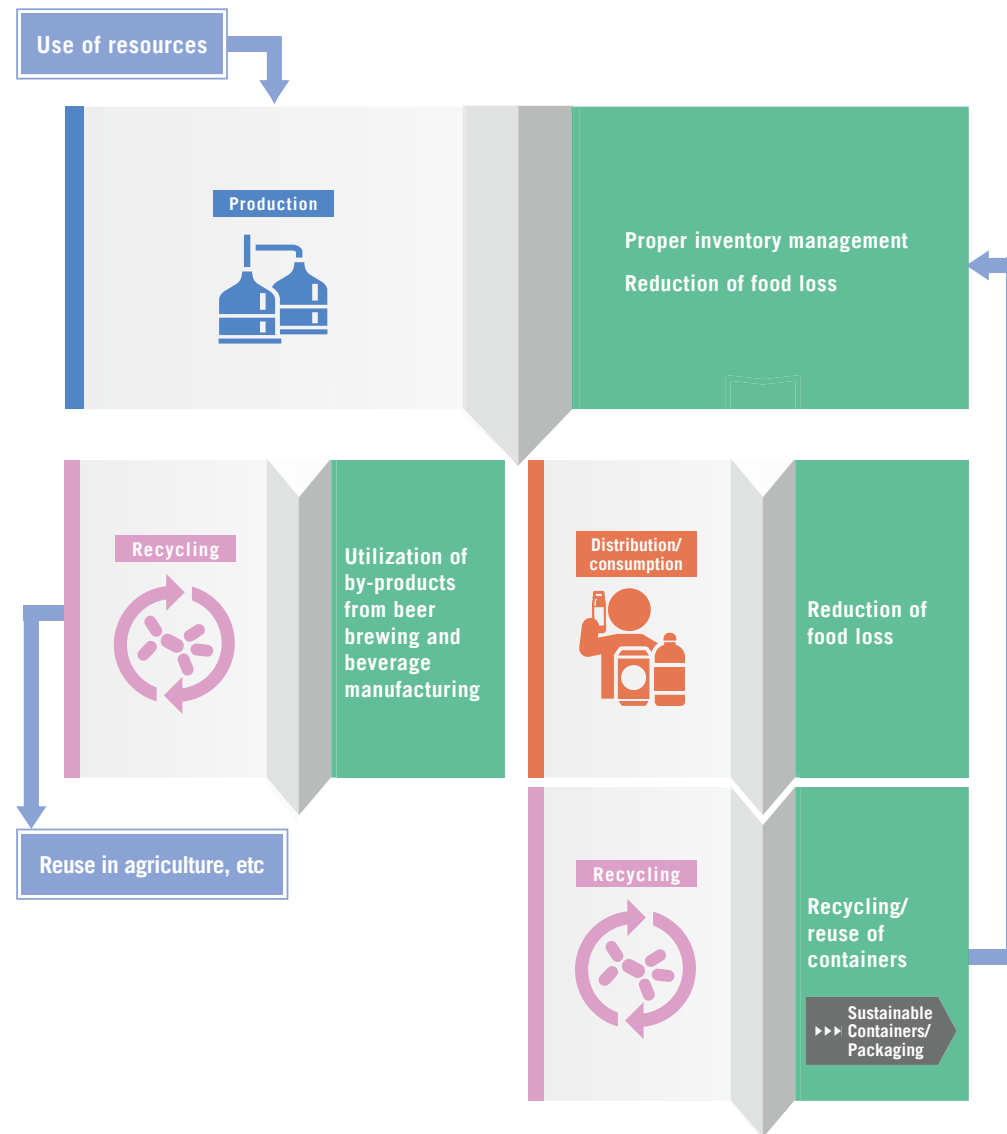
In a bid to build a circular economy, the Asahi Group has been active in its efforts to reuse manufacturing by-products by adding new value to them through fermentation and microbiology technologies developed by the Group. As part of these efforts, we are committed to developing technologies that will contribute to the cyclical use of food resources in society.

The Group also promotes 3R (reduce, reuse, recycle) and innovation for dealing with waste throughout the entire product lifecycle. Having achieved a 100% recycling rate for by-products and waste at our manufacturing bases in Japan, we now plan to expand our recycling efforts to our manufacturing bases and offices around the world, alongside diverse initiatives for waste reduction, in order to achieve a 100% recycling rate for by-products and waste across the entire Group.

• Co-creation with Stakeholders

The Asahi Group has been working to build a circular economy in collaboration with a broad range of stakeholders, including a research institute with which we jointly developed technologies to utilize by-products and agricultural producers who use recycled by-products. Furthermore, we ask our employees to actively engage in reducing waste at manufacturing bases and offices and partner with governments to reduce waste.

■ Achieving a Circular Economy in the Value Chain



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The Asahi Group's Approach

Our Goals

The Asahi Group will continue leveraging its accumulated technologies and knowledge to study new uses for by-products. It will build businesses around activities that maximize the Asahi Group's unique strengths to create value, and work to expand those businesses. The Group will also encourage a 3R (reduce, reuse, recycle) approach to waste to facilitate activities preventing pollution in pursuit of a circular economy.

In Japan,* the Asahi Group already recycles 100% of by-products and waste. This will be expanded to our manufacturing bases outside Japan, with the goal of recycling 100% of the by-products and waste generated by the entire Asahi Group.

* Manufacturing bases in Japan and the Asahi Group Holdings, Ltd. headquarters

Social Impact

Through its efforts to build a circular economy that promotes the effective use of resources and reduction of waste, the Asahi Group aims to realize zero environmental impact (Neutral) in its business activities as set out in the Asahi Group Environmental Vision 2050. We believe that our efforts to reduce food loss and utilize by-products will also help solve the food issues facing the world. Through these and similar initiatives, the Group will contribute to achieving SDGs 2 and 12.



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Circular Economy Initiatives

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Distribution/
consumption

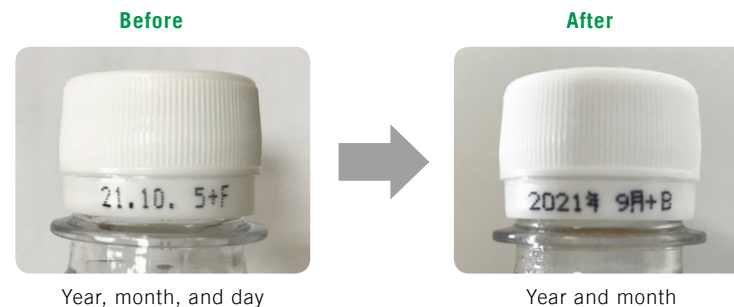


Transitioning to Month-Only Sell-By Dates

In an effort to reduce food waste due to products being unnecessarily discarded as a result of their sell-by dates, Asahi Soft Drinks Co., Ltd. is transitioning from sell-by dates specifying year, month, and day to sell-by dates specifying only year and month.

Through this initiative, inventory management—including production, sales, transport during distribution, storage, and in-store display—will transition from day-based to month-based management. This is expected to allow more appropriate levels of stock to be retained, preventing and minimizing food loss. Japan's Ministry of Agriculture, Forestry, and Fisheries is also promoting the transition away from unnecessarily restrictive sell-by dates, including through the use of sell-by dates showing only the year and month.

By 2020, Asahi Soft Drinks Co., Ltd. had completed the transition for all cans and PET bottles with sell-by dates at least eight months after manufacture, as well as all products with sell-by dates at least 12 months after manufacture. The company's sales department is also collaborating with retailers on initiatives to reduce food waste due to returns. These initiatives aim not only to reduce food waste but also to make distribution management more efficient. They are expected to reduce the environmental burden caused by CO₂ emissions during transport, improve labor productivity, and help advance workstyle reforms.



Recycling



Initiatives for Waste Management and Reuse

From 2015, the Asahi Group has been progressively implementing a waste data management system for all Group companies in Japan to disclose information through the centralized management of waste data, while also strengthening compliance and optimizing operations at offices and facilities of operating companies.

In addition, at manufacturing bases in Japan, the recycling rate for by-products and waste products has reached 100%.* Food waste generated at the Asahi Group Head Office building is recycled into electricity and city gas by outsourcing the processing to the methane fermentation system (Jyonanjima food recycling facility) of Bio Energy Corporation. Through such initiatives, the Head Office building has maintained 100% waste recycling since 2006. The Group now aims to extend this to manufacturing bases and offices outside Japan, bringing the recycling rate for by-products and waste products to 100% across the entire Group.

* Because the amounts produced and recycled are both measured by the kiloton, the actual recycling rate is sometimes rounded up two decimal places to 100%.

Waste recycling rate at manufacturing bases in Japan and Asahi Group Head Office building: **100%**



Methane fermentation system (Jyonanjima food recycling facility)

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Recycling

Efficient Use of Coffee Grounds Generated in Manufacturing



The Asahi Group has advanced various efforts to make efficient use coffee grounds generated from coffee manufacturing processes.

In 2020, the Asahi Group developed *FROST BUSTER*, a frost damage inhibitor for farm crops that is made with an extract from coffee grounds, in collaboration with KUREi Co., Ltd., a startup from Kansai University. *FROST BUSTER* reduces the formation of ice crystals, thereby preventing frost damage* to crops. It is being test-marketed and positive data on the product's effectiveness has been collected mainly from fruit farms. Farmers who have used the product said that frost damage has apparently been reduced and that it is a safe product because it is made from farm produce.

Since 2013, the Hokuriku Plant of Asahi Soft Drinks Co., Ltd. has used coffee grounds generated during the manufacturing of the *WONDA* brand of coffee as fuel for biomass energy.

* Frost damage occurs when frost is produced after a rapid drop in temperature seen during dawn and can have a negative impact on crops by destroying portions of flower bud cells.

FROST BUSTER diluted by 500 times is sprayed on crops the day before low temperatures are forecast.



Coffee grounds are used as fuel for biomass power generation.

Recycling

Recycling of By-products Generated from Manufacturing Processes



The Asahi Group promotes the recycling of the by-products generated from manufacturing processes.

At Asahi Beer Feed Co., Ltd., malt feed (brewer's grains), a by-product of beer manufacturing, is processed for livestock feed and sold under the name of *Malt Feed Silage*.

At the Fujisan Factory of Asahi Soft Drinks Co., Ltd., tea leaves left over from the production of *Asahi JUROKUCHA* are recycled into mixed feed for dairy cows.

As a result of these efforts, waste has been reduced through recycling and imported grains for livestock feed has decreased, thereby contributing to the reduction in feed cost.



Used *Asahi JUROKUCHA* tea leaves are recycled into mixed feed.

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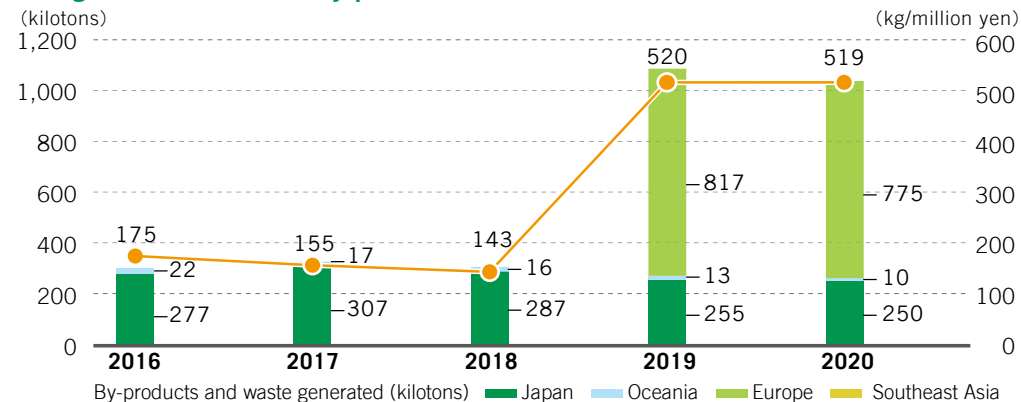
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Data

Changes in the Volume of By-products and Waste Generated (Basic Unit)



By-products and waste generated (kilotons) Japan Oceania Europe Southeast Asia

Basic unit (kg/million yen)*

* Per unit of sales

- Notes: 1. Net sales in accordance with the International Financial Reporting Standards (IFRS) has been used for basic unit calculations since 2016.
 2. The area of analysis of by-products and waste generated included only Oceania up to 2018 and then Europe and Oceania in 2019.
 3. Scope of aggregation: [Click here for more information.](#)

Volume of By-products Generated by Operating Business

Unit: kilotons

| Business Name | 2016 | 2017 | 2018 | 2019 | 2020 |
|--|------|------|------|-------|-------|
| 1. Alcohol Beverages Business | 231 | 260 | 243 | 211 | 202 |
| 2. Soft Drinks Business | 40 | 40 | 38 | 39 | 43 |
| 3. Food Business | 6.1 | 6.4 | 5.8 | 4.9 | 4.6 |
| 4. Other Businesses* | 0.2 | 0.2 | 0.2 | 0.2 | 0.1 |
| 5. Overseas Business | 22 | 17 | 16 | 830 | 788 |
| Total of items 1 to 5 | 299 | 324 | 303 | 1,086 | 1,038 |
| Basic unit of by-products and waste generated (kg/million yen): per units of net sales | 175 | 155 | 143 | 520 | 519 |

- * "Other Businesses" include the building of the Asahi Group Holdings, Ltd. headquarters.
 Notes: 1. Generated from production bases (factories)
 2. Scope of aggregation: [Click here for more information.](#)

By-products and Waste Generated and Recycled by Region

Unit: kilotons

| Region | Content | 2016 | 2017 | 2018 | 2019 | 2020 |
|---------|-------------------|------|------|------|------|------|
| Japan | Waste generated | 277 | 307 | 287 | 255 | 250 |
| | Recycled | 277 | 307 | 287 | 255 | 250 |
| | Recycled rate (%) | 100 | 100 | 100 | 100 | 100 |
| Oceania | Waste generated | 22 | 17 | 16 | 13 | 10 |
| | Recycled | 18 | 15 | 14 | 12 | 9 |
| | Recycled rate (%) | 84 | 89 | 88 | 88 | 90 |
| Europe | Waste generated | - | - | - | 817 | 775 |
| | Recycled | - | - | - | 798 | 757 |
| | Recycled rate (%) | - | - | - | 98 | 98 |

- Notes: 1. Figures for by-products and waste generated in Europe are disclosed for 2019 onwards, due to a review of the definitions used.
 2. Scope of aggregation: [Click here for more information.](#)

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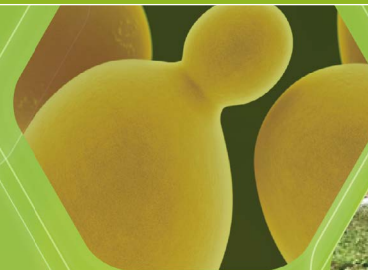
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▶▶▶ 3. Utilize Microbe and Fermentation Technologies

As one of the objectives of the Asahi Group Environmental Vision 2050, “Utilize Microbe and Fermentation Technologies” calls for the Group to create more environmental value in society (Plus) by harnessing its proprietary technologies. The Asahi Group will harness the microbial and fermentation technologies its businesses have developed, promote research into new uses for by-products, and apply the results to resolve social problems around food and help build a circular economy. Additionally, by working with stakeholders in fields like agriculture, forestry, and livestock production, the Asahi Group will strive to use its strengths to create new environmental value.

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Utilize Microbe and Fermentation Technologies

The Asahi Group's Approach

The Challenge

As the world's population and economy continue to grow, production and consumption alike are worsening resource shortages and environmental disruption. At the same time, food is demanded in greater quantities and of higher quality than ever before. A sustainable food supply system is urgently needed.

As well as its businesses manufacturing and selling of alcoholic beverages, soft drinks, and food products, the Asahi Group also draws on fermentation and microbial technologies developed in beer brewing to find innovative uses for manufacturing by-products. By expanding these initiatives and businesses, the Group aims to achieve a sustainable, safe, and reliable food supply, which in turn will help to build a circular economy.

Our Response

In April 2020, part of the Animal Nutrition and Health Business division of Asahi Calpis Wellness Co., Ltd. and the Agriculture Business division of Asahi Biocycle Co., Ltd. were merged into a new company, also named Asahi Biocycle Co., Ltd. The reborn company thus combines Asahi Biocycle Co., Ltd.'s expertise in improving the productivity and quality of agricultural products using safe and reliable agricultural materials derived from brewing yeast cell walls with the Asahi Calpis Wellness Co., Ltd.'s expertise at improving feed efficiency to produce safe and reliable livestock products through technologies using lactic acid bacteria and fermented milk developed through research on the lactic acid drink *CALPIS*.

Asahi Biocycle Co., Ltd. will continue to contribute to the global supply of safe and reliable food products and establishment of conservation-oriented agriculture systems. It offers an array of technologies to benefit society based on the Asahi Group's long years of research, from applications for beneficial microorganisms such as yeast, lactic acid bacteria, and *Bacillus subtilis* to fermentation technologies, thereby enhancing the social value of the Asahi Group.

● Co-creation with Stakeholders

The Asahi Group seeks to address social challenges through business. To this end, the Group works closely with stakeholders in the agriculture, forestry, and livestock industries to create technological innovation and new value addressing the social challenges related to food.

Our Goals

As demand for safe and reliable livestock products increases around the world, the livestock industry is exploring new approaches to livestock production that do not rely on growth-promoting antibiotics. Recognizing this opportunity, Asahi Biocycle Co., Ltd.'s Animal Nutrition and Health Business has begun marketing some products globally. One example is *CALSPORIN*, a probiotic for livestock that promotes healthy growth and improves feed efficiency by optimizing the intestinal environment. Not only do products like this help to ensure a safe and reliable supply of delicious livestock products, they also help resolve global food issues by raising feed efficiency and thus reducing the amount of grain used in livestock feed.

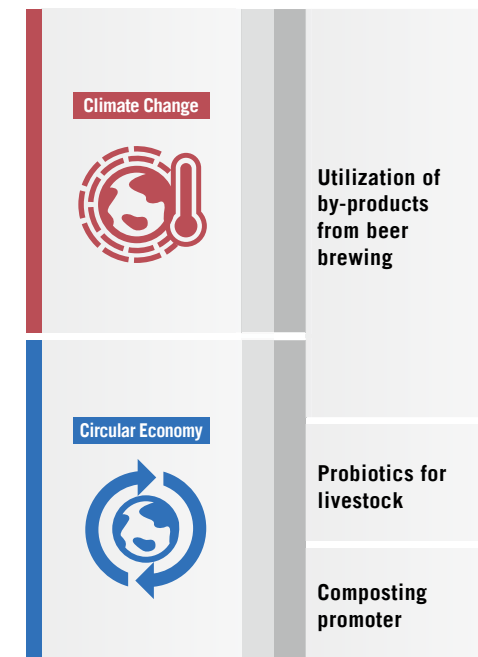
In its Agriculture Business, Asahi Biocycle Co., Ltd. uses brewing yeast cell walls processed with its unique technologies to create agricultural materials that increase the productivity and quality of agricultural products, improve soil conditions, and help grow and maintain healthy lawns. The company's aim in this effort is to help build conservation-oriented agriculture systems, reducing the use of agricultural chemicals, mitigating CO₂ emissions, and ensuring safe and abundant lifestyles.

Asahi Biocycle Co., Ltd. also produces *THERVELICS*, a microbe-based composting promoter that efficiently reduces food waste and is effective for producing quality mature compost. Through these and other efforts, the company aims to reduce the environmental burden of agriculture through the circular use of food resources.

Social Impact

Through initiatives at Asahi Biocycle Co., Ltd., the Asahi Group will continue contributing to safe and abundant lifestyles into the future by basing its business on efforts to resolve the world's social issues and promote sustainability, and actively promoting its CSV strategy toward sustainable growth.

■ Initiatives to Address Social Issues



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Heading icons are explained on page 56.

Climate Change Circular Economy

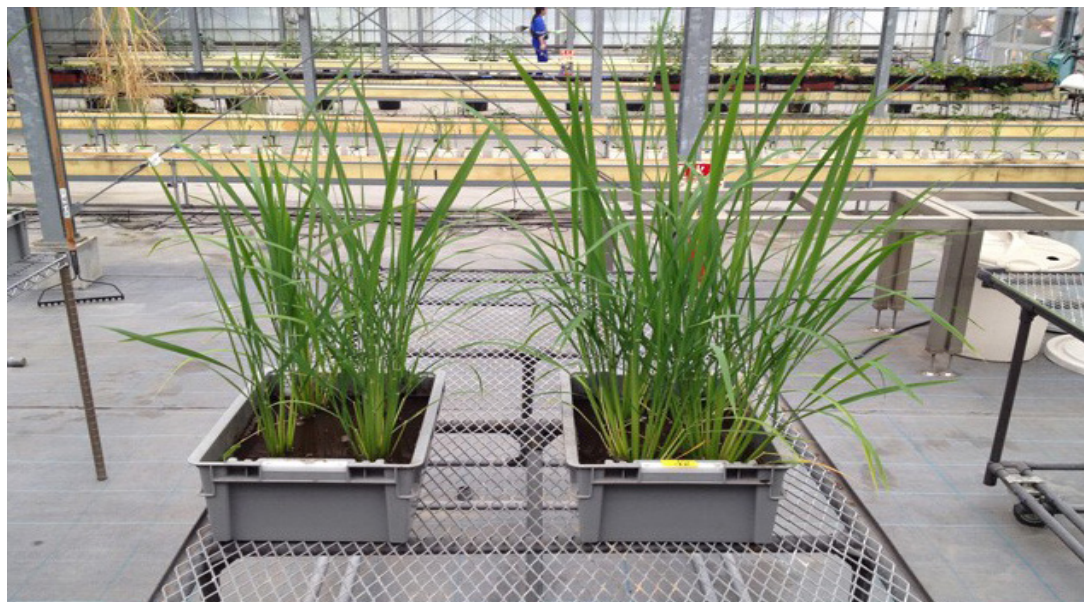


Utilization of Brewing Yeast Cell Walls, a By-product of Brewing Process

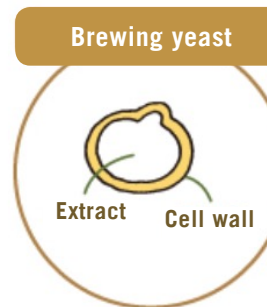
Since 2004, the Asahi Group has been working on the development of a new type of agricultural material that utilizes the plant immunity properties of brewing yeast cell walls, a by-product of the brewing process.

The beer brewing process leaves brewing yeast as a by-product, which is made up of a yeast extract rich in nutrients and umami as well as a brewing yeast cell wall surrounding it like a husk. While brewing yeast has been used for the manufacture of *EBIOS* sold by Asahi Group Foods, Ltd. and yeast extract, obtained from the lysis and extraction of brewing yeast, used as a material for seasoning and other products, effective use of brewing yeast cell walls remains insufficient, despite some use in livestock feed and other applications. After about 10 years of study, however, the Asahi Group succeeded in establishing a special proprietary technology for processing brewing yeast cell walls to develop an agricultural material (a fertilizer raw material). This paves the way for the creation of agricultural materials capable of increasing crop yields, reducing agrochemical use, improving soil tilth, and decreasing CO₂ emissions.

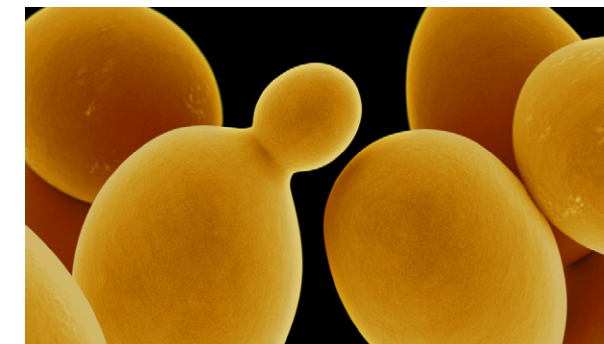
The agricultural material is available from Asahi Biocycle Co., Ltd., and is used by farms, golf courses, natural-grass sports facilities such as baseball fields, including the Hanshin Koshien Stadium, and parks in Japan.



Rice plants using an agricultural material made from brewing yeast cell walls (right), and conventionally cultivated rice plants (left)



Structure of a brewing yeast cell wall



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Use of the Composting Promoter *THERVELICS*

Asahi Biocycle Co., Ltd. aims to build a cycle for the recycling of food resources by efficiently composting food waste and reusing it for crop production using the composting promoter *THERVELICS* (*Bacillus subtilis* C-3102).

THERVELICS has high decomposing power for organic matter to efficiently compost food waste such as vegetable scraps. It is expected to lower the burden on the environment by reducing the volume of food waste and promoting recycling-oriented agriculture through the use of compost, while encouraging food recycling, creating a circular

economy, and establishing regional resource recycling-oriented economies.

The Asahi Group has introduced a composter that uses *THERVELICS* at some of its staff canteens. The composter achieves zero kitchen waste and contributes to reducing CO₂ emissions from the transportation and incineration of kitchen waste by converting waste and leftovers from canteens into compost. The high-quality, mature compost that is produced is then supplied to farming families, where it is used for growing crops.



Circular Economy



Utilizing Probiotics for Livestock

CALSPORIN (*Bacillus subtilis* C-3102) from Asahi Biocycle Co., Ltd. is a probiotic that optimizes the intestinal flora of livestock. Its benefits include improved feed efficiency and increased livestock size. *CALSPORIN* has obtained approval in 60 countries worldwide and is sold in 36 countries, making it possible in 2020 to save approximately 630,000 tons of feed grains (soybean, corn, flour, etc.) needed to raise livestock. According to an estimate by Asahi Biocycle Co., Ltd., if *CALSPORIN* were used in all livestock feed worldwide, increased feed efficiency would allow so much livestock grain production to be converted to human grain production that food for around 120 million people could be produced.

CALSPORIN: Approved in **60** countries Sold in **36** countries

Note: As of June 2021



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The Asahi Group Environmental Vision 2050 calls for “Process Innovation” as a way to create more environmental value in society (Plus) using the Group’s proprietary technologies. The Group will actively seek opportunities for process innovation at every stage in the value chain, from raw material procurement to delivering products to customers, combining its cultivated technologies and insights with those of all its stakeholders to reduce the burden on the environment. Working to share these newly developed technologies with society as a whole, the Group will actively encourage their use to help resolve social issues.

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The Asahi Group's Approach

The Challenge

The Asahi Group operates businesses using blessings of nature, and the entire Group must work together to address global social issues such as climate change and increased environmental burden due to global population increase and economic growth. To not only reduce the environmental burden of our own business activities but also create more environmental value for society, we believe that new ideas, unbound by existing approaches, will be necessary. As a Group, we will review the processes of our existing business activities and create revolutionary new technologies and systems to achieve this.

Our Response

The Asahi Group is simultaneously working to reduce its environmental impact and create environmental value around the themes of climate change, sustainable raw material procurement, sustainable containers/packaging, sustainable water resources, and the circular economy. Aiming to create environmental value, we are engaged in process innovation in the form of developing technology to use by-products from manufacturing processes as fuel in order to reduce CO₂ emissions.

● Co-creation with Stakeholders

The Asahi Group strives to create environmental value by actively adopting technologies and expertise cultivated by Group companies and stakeholders at every stage of the value chain that delivers the Group's products to customers. We are working to share these newly developed technologies not only with directly involved parties but also with society as a whole to encourage their active use.

Our Goals

The Asahi Group is working toward the goals set in the Asahi Group Environmental Vision 2050 with respect to global social issues such as climate change and containers and packaging. Through process innovation, we will accelerate our progress toward achieving these goals. [▶▶▶ Asahi Group Environmental Vision 2050](#)

Social Impact

By reviewing the processes of its existing business activities and engaging in process innovation to create revolutionary new technologies and systems, the Asahi Group will achieve the goal of creating environmental value (Plus) set out in the Asahi Group Environmental Vision 2050 and contribute to resolving global social issues such as climate change and environmental pollution due to waste.

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Toward Creating Environmental Value (Plus) ▶▶▶ 4. Process Innovation

Technology Development Initiatives

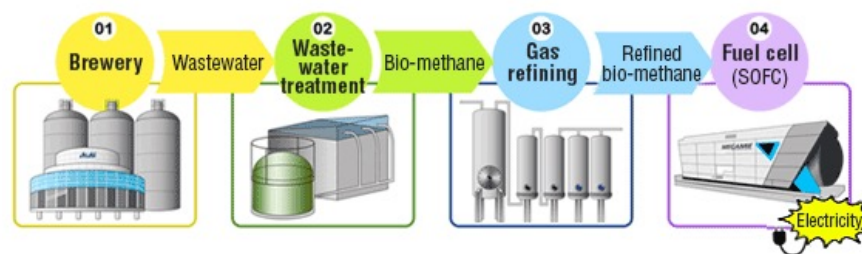
Trialing a Biomethane Fuel Cell Power Generation System

As a new model for CO₂ emissions reduction, the Asahi Group has begun trialing a power generation system employing solid oxide electrolysis cells (SOFCs) and biomethane derived from beer brewery wastewater. Trial operation began in 2020 at the Ibaraki Brewery of Asahi Breweries, Ltd.

SOFCs are known for their ability to generate power with high energy conversion efficiency, but the majority of power generation systems remain dependent on hydrogen derived from fossil fuels or city gas, limiting their contribution to reducing CO₂ emissions. Aiming to utilize biomethane gases obtained from anaerobic wastewater treatment facilities at breweries for SOFC-based power generation systems, the Asahi Group constructed a refining process for removing impurities from these gases. In 2019, an experimental SOFC-based generator jointly developed by the Asahi Group and Kyushu University succeeded in generating power for 10,000 continuous hours in a laboratory. Based on these results, the system was chosen by the Ministry of the Environment as a subsidy recipient and biomethane refining facilities and fuel cells were constructed at the Ibaraki Brewery of Asahi Breweries, Ltd. Stable, continuous operation of the system will begin in 2021.

Once ready for operation, the 200 kW system will supply approximately 1.6 million kWh of electricity per year—enough to power approximately 350 households.

Annual power output:
Approx. **1.6** million kWh



Biomethane gas-powered fuel cell power generation system

Trialing Fuel Cell Trucks

The Asahi Group has agreed to on-road trials of large fuel cell-powered trucks in cooperation with Seino Transportation Co., Ltd., NEXT Logistics Japan, Yamato Transport Co., Ltd., Toyota Motor Corporation, and Hino Motors, Ltd. with the aim of verifying the feasibility of utilizing hydrogen fuels to reduce CO₂ emissions in logistics operations.

The large trucks are for use in trunk-line transportation and must satisfy requirements in terms of driving range, load capacity, and quickness of fuel supply. The Asahi Group believes the trucks would be effectively motorized by a fuel cell system powered by hydrogen with high energy density. The large fuel cell trucks under development are designed to drive nearly 600 kilometers in pursuit of high-level compatibility between environmental performance and practicality as a commercial vehicle.



Large fuel cell truck (vehicle image)

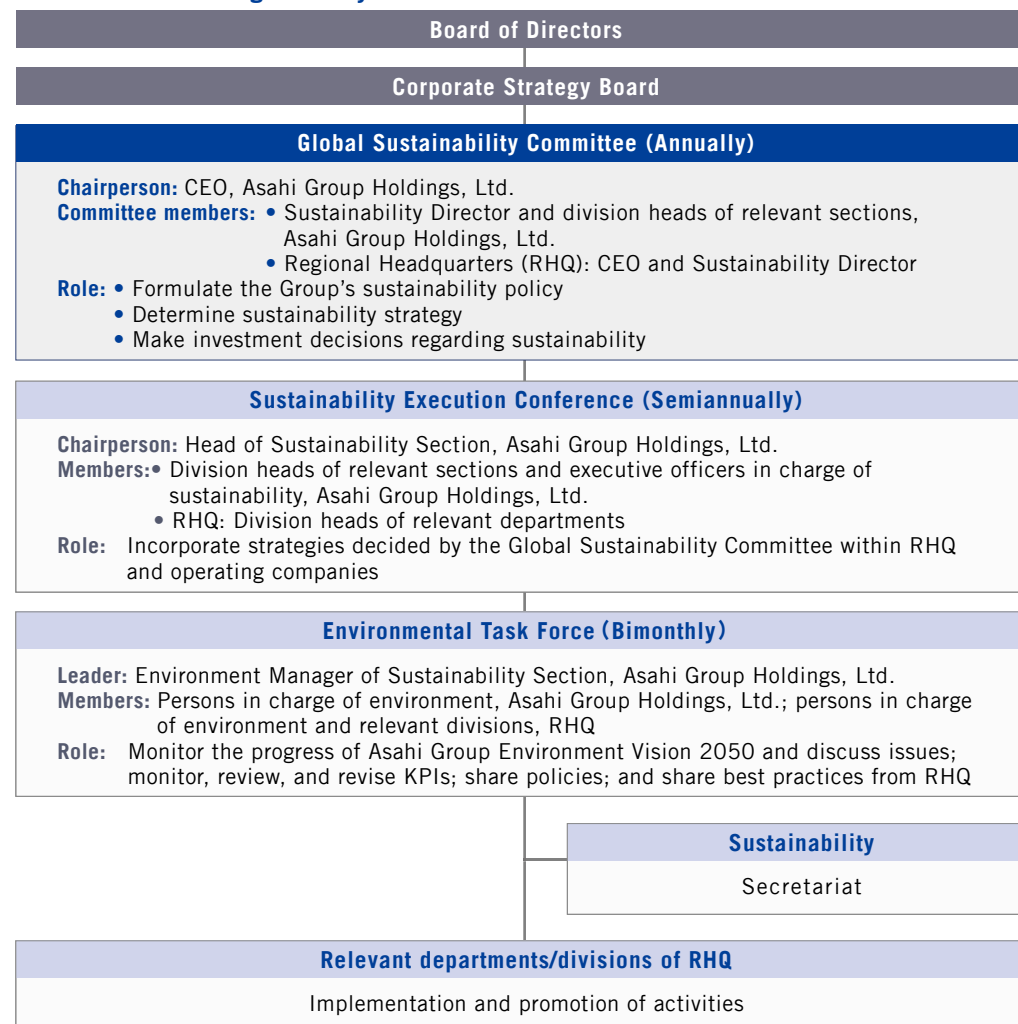
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Management

Environmental Management System

The Asahi Group has created a management system for tackling sustainability issues, including environmental issues throughout the Group, via the Global Sustainability Committee, which is chaired by the CEO of Asahi Group Holdings, Ltd. The commitment to environmental management applies to companies of the Asahi Group in Japan, Asahi Europe and International Ltd., Asahi Holdings (Australia) Pty Ltd, and Asahi Holdings South East Asia.

Environmental Management System



Risk Management

In the Asahi Group Risk Appetite Statement, which was formulated in 2020, the Asahi Group has announced its policy of promoting efforts to reduce risks that impact the natural environment. Accordingly, risks related to climate change and the use of plastic have been adopted as a main risk for the Group within our enterprise risk management (ERM) system. While working to set in motion a PDCA cycle under this management system, we are pursuing risk management on a Group-wide basis through collaboration between our sustainability management system, renewed in 2020, and the ERM system.

Environmental Task Force Meeting

Based on its environmental management system, the Asahi Group holds an environmental task force meeting regularly between persons in charge of the environment from Asahi Group Holdings, Ltd. and persons in charge of the environment and relevant divisions from RHQ to perform progress checks, discuss issues, and share best practices. In 2020, through discussions at task force meetings, the targets of Asahi Carbon Zero, the Group's medium- to long-term goal for CO₂ reductions, were revised upward.

Activities in 2020

| Month | Major Topics |
|----------|---|
| June | <ul style="list-style-type: none"> • Strategies for 2030 under the Asahi Group Environmental Vision 2050 • Initiatives for 2020 and issues for 2021 |
| August | <ul style="list-style-type: none"> • Specific strategies for sustainable containers/packaging • Collecting and reporting of environmental data |
| October | <ul style="list-style-type: none"> • Upward revision of the Asahi Carbon Zero targets • Setting of the KPIs for 2021 |
| December | <ul style="list-style-type: none"> • Formulation of road maps for key themes • Water risk survey at manufacturing bases |

Status on the Acquisition of Certification for the Environmental Management System

The Asahi Group is committed to the ISO 14001 environmental management system (EMS) and Eco Action 21 certifications regionally in Japan, Europe, Australia, and Southeast Asia. By establishing the EMS, the Group strives to enhance the level of its environmental management and step up its environmental conservation activities to achieve the Asahi Group Environmental Vision 2050.

In 2019, the Group expanded the scope of its certification efforts to include Asahi Breweries, Ltd. and sales companies of the Asahi Soft Drinks Co., Ltd., and acquired ISO 14001 integrated group certification for its main Group companies in Japan.

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EMS Acquisition Rate at Manufacturing Bases

| | Number of EMS-certified Manufacturing Bases | EMS Acquisition Rate |
|-------------------------------------|---|----------------------|
| Japan | ISO14001 | 30 |
| | Eco Action 21 | 3 |
| Oceania Europe Southeast Asia | ISO14001 | 30 |
| | | 86% |
| Total | 63 | 93% |

In-Company Environmental Training

The Asahi Group considers it essential that not only the persons in charge of the environment but also all the other employees understand the Group's environmental policies, objectives, and targets and make efforts to achieve the targets in each of their operations. Thus, environmental education based on the EMS is conducted at each RHQ and operating company.

In Japan, internal inspector training is provided for ISO 14001 integrated certification and some 200 employees were internally certified as internal inspectors in 2020. In addition, e-learning programs for environmental education were made available for all employees. The attendance rate for 2020 exceeded 90% at Asahi Breweries, Ltd. and Asahi Soft Drinks Co., Ltd.

Compliance with Environment-Related Laws and Regulations

Each factory of the Asahi Group not only complies with environment-related laws and regulations, but strives for environmental management by setting up voluntary standards that are more stringent than the legal standards even for wastewater processing and boiler equipment.

At the Asahi Group, there were no major accidents or violations affecting the environment in fiscal 2020.

At the Asahi Group, the Compliance Committee, chaired by the CEO of Asahi Group Holdings, Ltd., also monitors global trends in major legal changes, including environmental regulations.

At the committee held on May 2021, a report was issued on the EU announcement regarding plans to reduce CO₂ emissions by at least 55% (compared to 1990) by 2030 and to introduce the carbon border tax by 2023, along with other reports on environmental trends for environmental regulations in Australia, Southeast Asia, and Japan.

Biodiversity Philosophy

To practice business activities with respect for biodiversity, the Asahi Group has established philosophies and principles to serve as a foundation for its biodiversity conservation activities. In March 2010, the Asahi Group formulated and announced a Declaration on Biodiversity, the first of its kind in the domestic alcohol industry.

Asahi Group Declaration on Biodiversity: Protect the Gifts of Nature

Each of Earth's diverse living things has its own role—and all live together in balance, depending on one another. Each of the things we need for our daily lives—including clean air and water, or delicious food and drink—are the gifts of nature, provided to us by the diversity of life. Because the business activities of the Asahi Group make use of nature's gifts, such as water and grain, we respect the diversity of life and work to preserve nature's bounty, nurturing it and passing it on to future generations.

Main Policies and Nine Action Guidelines under the Declaration on Biodiversity

1. Protect nature, which serves as the home of living things

1. Protect the rich rivers and seas where species live
2. Protect and nurture the rich forests where species live
3. Create rich environments around our factories for living things to flourish

2. Use the gifts of nature with care

1. Properly use the gifts of nature
2. Use the gifts of nature more effectively
3. Study the relationships within nature, and undertake research and development to make use of them well

3. Take action with people around the world

1. Share this Declaration throughout the Asahi Group and put in efforts with our employees
2. Make use of our products and services to clearly convey the importance of nature's gifts
3. Take action globally and in cooperation with our business partners

Note: The Declaration on Biodiversity of the Asahi Group was formulated with reference to the Declaration on Biodiversity of the Nippon Keidanren (Japan Business Federation).

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Issuance of Green Bonds: Objectives and Background

In 2020, the Asahi Group became the first Japanese food manufacturer to issue green bonds. The proceeds raised through the bonds will be used mainly for such matters as procuring recycled PET and biomass plastic, purchasing renewable energy, and promoting conservation activities at the Group-owned forest "Asahi Forest." Through the bond issuance, the Group will accelerate its initiatives toward achieving the goals under the Asahi Group Environmental Vision 2050, including its response to climate change and sustainable use of resources, thereby contributing to the realization of a sustainable society.

With reinforcement of ESG initiatives one of the key priorities of the Group's Medium-Term Management Policy, these green bonds are the result of a process in which the Finance Department, seeking a way to promote sustainability on a departmental level, noted the rising trend toward issuance of ESG bonds in the financial markets, examined case studies, and proposed that the Group make a clear external commitment to using funds for sustainability by issuing green bonds of its own. This is an excellent example of how each department is incorporating sustainability perspectives into its strategy and undertaking concrete initiatives toward realization of the Asahi Group Environmental Vision 2050.


The issuance of the green bonds not only invited a wide variety of investors to express their intent to invest but helped raise the awareness of the Asahi Group's sustainability activities as well.

Overview of Green Bonds

| | |
|-----------------|---|
| Issuer | Asahi Group Holdings, Ltd. |
| Maturity | Five years |
| Issue amount | ¥10.0 billion |
| Issue date | October 15, 2020 |
| Use of proceeds | (1) Initiatives toward achieving Asahi Carbon Zero: Purchase of renewable energy, introduction of energy-saving equipment at plants, introduction of heat-pump vending machines (2) Initiatives toward using sustainable containers and packaging: Procurement of recycled PET, procurement of biomass plastic (3) Initiatives toward promoting sustainable water resources: Forest conservation activities at the Group-owned forest "Asahi Forest" |

Second-Party Opinion of Green Bond Eligibility

The Asahi Group has obtained a Second-Party Opinion from Japan Credit Rating Agency, Ltd. to ensure transparency and alignment with the 2018 Green Bond Principles and the Green Bond Guidelines 2020, and to attract more investors.

 Second-Party Opinion

Framework

For the issuance of its green bond, the Asahi Group has formulated a green bond framework which specifies Asahi's policy concerning the four core components (1. Use of proceeds, 2. Process of project evaluation and selection, 3. Management of proceeds, and 4. Reporting), which are defined in the 2018 Green Bond Principles of the International Capital Market Association (ICMA) and Green Bond Guidelines 2020 of Japan's Ministry of the Environment.

Reporting

Report on Allocation

Approximately ¥564 million was allocated to expenditures in eligible projects in 2020.

<Breakdown>

- Purchase of renewable energy: ¥44 million
- Introduction of heat-pump vending machines: ¥207 million
- Procurement of recycled PET, procurement of biomass plastic: ¥269 million etc.

Impact Report

| 1. Status of initiatives toward achieving Asahi Carbon Zero | |
|---|--|
| Amount of renewable energy electricity purchased | 14 GWh |
| Amount of CO ₂ emissions reduced | 1,674 t |
| 2. Status of initiatives toward using sustainable containers and packaging | |
| Amount of eco-friendly materials used, such as recycled PET and biomass plastic | 2,419 t |
| 3. Status of initiatives toward promoting sustainable water resources | |
| Overview of Asahi Forest | Land managed under Asahi Forest in 2020 was 2,467 ha, helping Asahi Breweries, Ltd. becoming 95% water neutral |

Note: Certain items were revised based on the most recently available environmental data to ensure appropriate reporting.

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| Theme | Organization | Risk/Opportunity | KPI | 2020 Result |
|--------------------------------------|--|------------------|--|--|
| Climate Change | Entire Group*1 | Risk | Reduce our CO ₂ emissions in Scope 1, 2, and 3 to zero, thereby becoming carbon neutral by 2050 | CO ₂ emissions in Scope 1, 2, and 3: 6,257 kilotons-CO ₂ |
| | Entire Group*2 | Risk | Reduce CO ₂ emissions in Scope 1 and 2 by 50% (compared with 2019) by 2030 | CO ₂ emissions in Scope 1 and 2: 760 kilotons-CO ₂ , an 11% reduction compared with 2019 |
| | Entire Group*1 | Risk | Reduce CO ₂ emissions in Scope 3 by 30% (compared with 2019) by 2030 | CO ₂ emissions in Scope 3: 5,497 kilotons-CO ₂ , a 6% reduction compared with 2019 |
| | Entire Group*2 | Risk | Shift to 100% renewable energy by 2050 | Renewable electricity consumption: 113,215 MWh Usage ratio: 12% |
| | Operating companies in Japan | Risk | Reduce CO ₂ emissions every year by 1% or more over the previous year | CO ₂ emissions in Scope 1 and 2: 433 kilotons-CO ₂ , a 6% reduction from previous year |
| | Operating companies in Japan | Risk | Use renewable energy for 100% of electricity purchased at all production bases by 2025 | Renewable electricity purchased: 26,054 MWh |
| | AEI | Risk | Reduce CO ₂ emissions in Scope 1 and 2 to zero by introducing renewable energy at plants, thereby becoming carbon neutral by 2030 | CO ₂ emissions in Scope 1 and 2: 239 kilotons-CO ₂ , a 20% reduction compared with 2019 |
| | AEI | Risk | Shift to 100% renewable energy for the electricity used at plants by 2025 | Renewable electricity consumption: 81,870 MWh |
| | AHA | Risk | Reduce CO ₂ emissions in Scope 1 and 2 by 50% (compared with 2019) by 2030 | CO ₂ emissions in Scope 1 and 2: 88 kilotons-CO ₂ , a 3% reduction compared with 2019 |
| | AHA | Risk | Shift to 100% renewable energy for the electricity used in Australia and New Zealand by 2025 | Renewable electricity consumption: 296 MWh |
| Sustainable Raw Material Procurement | AHSEA | Risk | Reduce CO ₂ emissions in Scope 1 and 2 every year by 2% or more over the previous year | CO ₂ emissions in Scope 1 and 2: 56 kilotons-CO ₂ , a 5% reduction compared with 2019 |
| | AGS | Risk | Raise the ratio of palm oil purchased from RSPO-certified suppliers to 25% in 2021 (Book and Claim certification system) | Actual purchase ratio: Approx. 1% |
| Sustainable Containers/Packaging | AHSEA | Risk | Purchase 20% of palm oil from MSPO-certified suppliers by 2021 in Malaysia | Planned to start in 2021 |
| | Operating companies in Japan, AHA, AHSEA | Risk Opportunity | Realize 100% utilization of materials for plastic containers that can be used effectively*3 by 2025 | In some countries where we operate, materials that cannot be effectively utilized were employed*4 |
| | AEI | Risk Opportunity | Use only containers, as well as secondary packaging, that are reusable or fully recyclable by 2030 | |
| | ASD | Risk Opportunity | Make the ratio of eco-friendly materials in plastic containers 60% by 2030 | 82% of 2020 usage objective achieved |
| | AEI | Risk Opportunity | Use only containers, as well as secondary packaging, that are made chiefly from recycled content by 2030 | Planned to start in 2021 |
| | AHSEA | Risk Opportunity | Use recycled materials on 30% of PET bottles by 2025 | Planned to start in 2021 |
| | ASD | Risk Opportunity | Achieve sales target for unlabeled bottles | Actual sales: 2.227 million cases, 206% of the figure for 2019 |
| | AEI | Risk Opportunity | Reduce plastic container/packaging by 25% by 2030 (compared with 2019) | Actual weight: Increased 7% compared with 2019 |
| | AHSEA | Risk Opportunity | Reduce the amount of single-use plastic used per liter of product by 5% annually through to 2025 | Actual usage volume: Reduced 14% compared with 2019 |
| Sustainable Water Resources | AHSEA | Risk Opportunity | Increase the ratio of FSC-certified cardboard used for product packaging to 100% by 2021 | Actual usage ratio: 100% |
| | Entire Group*5 | Risk | Reduce water intensity to 3.2 m ³ /kl or less by 2030 through streamlining of water usage and expansion of recycling system | Water intensity: 3.5m ³ /kl |
| | Entire Group | Risk | Carry out water risk survey periodically (once every 5 years) at Group manufacturing bases | Number of manufacturing bases surveyed for water risk: 2*6 *7 |
| Circular Economy | AB | Risk Opportunity | Achieve water neutrality at all breweries in Japan by 2025 through the utilization of Asahi Forest | Groundwater recharge amount of Asahi Forest: Increased 14% compared with 2019 |
| | Operating companies in Japan | Risk Opportunity | Maintain the 100% recycling rate for all by-products and waste | Actual recycling rate: 100% |

Note: Abbreviations stand for the following operating companies.

HD:Asahi Group Holdings, Ltd., AB: Asahi Breweries, Ltd., ASD: Asahi Soft Drinks Co., Ltd., AGS: Asahi Group Foods, Ltd., AEI: Asahi Europe and International Ltd., AHA: Asahi Holdings (Australia) Pty Ltd, AHSEA: Asahi Holdings South East Asia

*1 Entire Group: AB, ASD, AEI, AHA *2 Entire Group: Operating companies in Japan, AEI, AHA *3 Effective use: Reusable, recyclable, compostable, thermal recyclable, etc. *4 The approach to effective utilization differs by country. *5 Entire Group: AB, ASD, AEI, AHA, AHSEA *6 Surveys were postponed for overseas bases due to the COVID-19 pandemic. *7 All bases planned to be surveyed by 2024.

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We dedicate a section of the activity reports focusing on the Asahi Group to report on the activities of individual Group companies beginning with Asahi Breweries, Ltd.

CO₂ Emissions (Totals and Basic Unit), Energy Consumption and Basic Units, Renewable Electricity Consumption, Percentage of Renewable Electricity Consumption, Water Consumption, Volume of Wastewater

| | | 2016 | 2017 | 2018 | 2019 | 2020 |
|---|---|---|------|------|------|------|
| Alcohol Beverages Business in Japan | Asahi Breweries, Ltd. | ● | ● | ● | ● | ● |
| | The Nikka Whisky Distilling Co., Ltd. * Including former Satsumatsukasa Shuzo Co., Ltd. | ● | ● | ● | ● | ● |
| | Hokkaido Nikka Service Co., Ltd. | ● | ● | ● | ● | ● |
| | Sendai Nikka Service Co., Ltd. | ● | ● | ● | ● | ● |
| | Sainte Neige Wine Co., Ltd. | ● | ● | ● | ● | ● |
| | Asahi Food Create, Ltd. | ● | ● | ● | ● | ● |
| | Asahi Beer Malt, Ltd. | ● | ● | ● | ● | ● |
| | Asahi Beer Feed Co., Ltd. | ● | ● | ● | ● | ● |
| | Asahi Beer Communications, Ltd. | ● | ● | ● | ● | ● |
| | Asahi Draft Marketing, Ltd. | ● | ● | ● | ● | ● |
| | NADAMAN CO., LTD. | ● | ● | ● | ● | ● |
| | ENOTECA CO., LTD. | ● | ● | ● | ● | ● |
| | TOKYO Sumidagawa Brewing Co., Ltd. | ● | ● | ● | ● | ● |
| | Soft Drinks Business in Japan | Asahi Soft Drinks Co., Ltd. * Including former Fujisansensui Co., Ltd. | ● | ● | ● | ● |
| Calpis Co., Ltd. | | ● | ● | ● | ● | ● |
| Asahi Soft Drink Sales Co., Ltd. | | ● | ● | ● | ● | ● |
| Michinoku, Ltd. | | ● | ● | ● | ● | ● |
| Kyushu Asahi Soft Drink Sales Co., Ltd. | | ● | ● | ● | ● | ● |
| Asahi Orion Inryo Co., Ltd. | | ● | ● | ● | ● | ● |
| Food Business in Japan | Asahi Group Foods, Ltd. * Including former Asahi Food & Healthcare Co., Ltd., Wakodo Co., Ltd., and Amano Jitsugyo Co., Ltd. | ● | ● | ● | ● | ● |
| | Nippon Freeze Drying Co., Ltd. | ● | ● | ● | ● | ● |
| | Wako Food Industry Co., Ltd. | ● | ● | ● | ● | ● |
| Other Business in Japan | Asahi Group Holdings, Ltd. | ● | ● | ● | ● | ● |
| | Asahi Quality & Innovations, Ltd. | ● | ● | ● | ● | ● |
| | Asahi Professional Management Co., Ltd. | ● | ● | ● | ● | ● |
| | Asahi Logistics Co., Ltd. | ● | ● | ● | ● | ● |
| | East Japan AB Cargo Co., Ltd. | ● | ● | ● | ● | ● |
| | West Japan AB Cargo Co., Ltd. | ● | ● | ● | ● | ● |
| | Asahi Group Engineering Co., Ltd. | ● | ● | ● | ● | ● |
| | Asahi Business Solutions Corp. | ● | ● | ● | ● | ● |
| Asahi Calpis Wellness Co., Ltd. | ● | ● | ● | ● | ● | |
| Overseas Business | Oceania: Asahi Holdings (Australia) Pty Ltd (Australia, New Zealand) | ● | ● | ● | ● | ● |
| | Asahi Europe and International Ltd. (U.K., Italy, the Netherlands, Czech Republic, Slovakia, Romania, Hungary, Poland) | ● | ● | ● | ● | ● |
| | Southeast Asia: Asahi Holdings South East Asia (Malaysia, Indonesia, Vietnam) | ● | ● | ● | ● | ● |

Note: The companies shown for 2020 represent 99% of the Group as a whole (based on net sales).

Volume of By-products and Waste Generated, and Basic Unit

| | | 2016 | 2017 | 2018 | 2019 | 2020 |
|-------------------------------------|---|------|------|------|------|------|
| Alcohol Beverages Business in Japan | Asahi Breweries, Ltd. | ● | ● | ● | ● | ● |
| | The Nikka Whisky Distilling Co., Ltd. * Including former Satsumatsukasa Shuzo Co., Ltd. | ● | ● | ● | ● | ● |
| | Sainte Neige Wine Co., Ltd. | ● | ● | ● | ● | ● |
| | Asahi Beer Malt, Ltd. | ● | ● | ● | ● | ● |
| Soft Drinks Business in Japan | Asahi Soft Drinks Co., Ltd. * Including former Fujisansensui Co., Ltd. | ● | ● | ● | ● | ● |
| Food Business in Japan | Asahi Group Foods, Ltd. * Including former Asahi Food & Healthcare Co., Ltd., Wakodo Co., Ltd., and Amano Jitsugyo Co., Ltd. | ● | ● | ● | ● | ● |
| | Nippon Freeze Drying Co., Ltd. | ● | ● | ● | ● | ● |
| | Wako Food Industry Co., Ltd. | ● | ● | ● | ● | ● |
| Other Business in Japan | Asahi Calpis Wellness Co., Ltd. | ● | ● | ● | ● | ● |
| | Asahi Group Holdings, Ltd. | ● | ● | ● | ● | ● |
| Overseas Business | Oceania: Asahi Holdings (Australia) Pty Ltd (Australia, New Zealand) | ● | ● | ● | ● | ● |
| | Asahi Europe and International Ltd. (U.K., Italy, the Netherlands, Czech Republic, Slovakia, Romania, Hungary, Poland) | ● | ● | ● | ● | ● |
| | Southeast Asia: Asahi Holdings South East Asia (Malaysia, Indonesia, Vietnam) | ● | ● | ● | ● | ● |

Note: The companies shown for 2020 represent 91% of the Group as a whole (based on net sales).

Volume of CO₂ Emissions During Transportation

| | 2016 | 2017 | 2018 | 2019 | 2020 |
|-----------------------------|------|------|------|------|------|
| Asahi Breweries, Ltd. | ● | ● | ● | ● | ● |
| Asahi Soft Drinks Co., Ltd. | ● | ● | ● | ● | ● |

Note: Targeted companies of the Asahi Group are Specified Consignors under the Energy Saving Act.

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Outside Evaluations/Awards

Over the years, the Asahi Group has received various environment-related awards and evaluations.

Evaluation of Environmental Initiatives

The survey conducted by international non-profit organization CDP included Asahi Group Holdings, Ltd. in its A-List (the highest rating) in the "climate change" category for the third successive year. Asahi Group Holdings, Ltd. was also included in the Supplier Engagement Leaderboard, making it one of the highest rated companies in the Supplier Engagement Evaluation. This inclusion is considered to be in recognition of the Group's efforts in areas such as establishing new targets with regard to climate change in the form of the Asahi Carbon Zero initiative, manufacturing products with the use of renewable energy, selling unlabeled bottles, introducing fuel cells with biogas, and continuously taking on challenges and making innovations to achieve these objectives, along with third-party verification of data.

In addition, at the 2nd ESG Finance Awards Japan, organized by the Ministry of the Environment, the Asahi Group was recognized in the Fundraiser division and Environmentally Sustainable Company division. The Awards recognize and commend financial institutions and other organizations that are aggressively committed to ESG financing as well as companies that engage in environmentally sustainable management.



Inclusion in ESG Indices

Interest in investment focusing on environmental, social, and governance (ESG) factors has been rising in recent years. This investment approach, seen primarily in the asset management activities of institutional investors, entails using both financial data and non-financial initiatives in evaluation standards for investment decisions. ESG evaluations are conducted by numerous institutions around the world. Asahi Group companies are included in a number of ESG indices related to the environment.



FTSE4Good



FTSE Blossom Japan



2021 CONSTITUENT MSCI JAPAN
ESG SELECT LEADERS INDEX

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Afterword

The Asahi Group is committed to rooting sustainability within its management, identifying the risks and opportunities related to environmental problems that have a major effect on the Earth's ecosystem as a whole—such as CO₂ emissions, a major factor in climate change, and plastic, a factor in ocean pollution—and reinforcing its eco-centric initiatives toward sustainable society and business.

Our aim in publishing this *Environmental Report* is to win greater understanding from all stakeholders about the ideas and attitudes behind the Group's environmental initiatives by revealing the full picture of those initiatives in a systematic fashion.

Looking forward, we will continue to engage in co-creation with our stakeholders and actively promote environmental initiatives for the sake of future generations as we aim to be a company that brings smiles to people and the Earth. If you have any opinions to share with us after reading the report, please do not hesitate to contact us.

Kayoko Kondo, Head of Sustainability

October 2021



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