Activities in Response to Significant Risks and Opportunities

Transition Risk/Market

Sales

Opportunity loss due to ethical consumption [medium to long term]

If we fail to provide products that incorporate environmental and human rights considerations—particularly in areas such as climate change, natural capital, and containers and packaging— there is a risk of losing revenue opportunities associated with ethical consumption. Scenario analyses related to climate change and nature indicated that a rapid expansion of the ethical consumption market is not expected in the near term. If, however, younger, sustainability-conscious consumers become the primary drivers of consumption, demand for ethical products may increase. Packaging-related issues are highly visible and readily recognized by consumers; therefore, in the absence of appropriate responses, there is a heightened risk of negative public perception and criticism.

Response Strategy

▶Environmentally friendly products

The Kirin Group will advance the production of environmentally friendly products and display the content and effects of these efforts. Additionally, through cross-industry partnerships, we are working to improve sustainability in the packaging sector.

Activities

▶Environmentally friendly products

Stone & Wood has implemented the “Re-In-Can-Ation” project in Australia in collaboration with suppliers such as Visy, Novelis, and Rio Tinto to aim for sustainable packaging. This initiative conducted an 18-month trial through 2025, adopting cans made from 83% recycled aluminum and low-carbon primary aluminum, aiming to reduce CO_2 emissions by 59% compared to traditional cans. The 18-month trial expects to sell 15 million cans and reduce CO_2 emissions by 1,235 t. Furthermore, in 2026, sales of 6 million cans are projected, with an estimated reduction of 494 t of CO_2 emissions.

Cans Made from Recycled Aluminum and Low-carbon Primary Aluminum

▶Promotion of the environmental value and sales of decarbonized products in the Japanese market

The Kirin Group introduced “Decarbo Score,” a system that quantifies the CO_2 reduction impact of products, to encourage environmentally conscious consumer behavior.

Kirin Beverage participated in Kanagawa Prefecture’s decarbonization campaign “Kanagawa CO_2CO_2 Points Plus” offering “Namacha” as a target product. Sales volume increased by up to four times while maintaining the same price. FANCL also participated in the same campaign by offering refillable cosmetics, achieving sales 1.2 times higher than the previous year.

These results demonstrate that providing relevant information can drive changes in consumer behavior while simultaneously delivering both environmental and economic value (Details on initiatives (→P.72)).

Activities in Response to Significant Risks and Opportunities

Transition Risk/Market

Procurement Manufacturing

High energy prices [medium to long term]

As initiatives targeting decarbonization accelerate around the world, it is highly possible that demand for natural gas may increase and prices may rise in the short term, owing to such factors as the transition toward sources of energy with low GHG emissions and divestment of coal.

Response Strategy

▶ **Steady implementation of our roadmap to achieve our science-based 1.5˚C target**

To reduce natural gas consumption, we consider the steady implementation of our climate transition roadmap, aligned with the SBT 1.5˚C target, to be essential.

Under the Kirin Group roadmap, we prioritize energy efficiency measures to the greatest extent possible, followed by a shift in the energy mix toward electrification, with the use of renewable energy for electricity.

Activities

We are conducting pilot projects to transition heat sources in heating processes from city gas to electricity or green hydrogen. (Details on green hydrogen →P.55)

Activities in Response to Significant Risks and Opportunities

Systemic Risk

Procurement

Reduction in agricultural land and ecosystem damage due to farmland abandonment and excessive use of agricultural chemicals

In Japan, an aging farming population is the primary driver of an increase in farmland abandonment. Once abandoned, these lands quickly become covered with invasive weeds and transition to simple ecosystems, which can lead to crop diseases in neighboring farmlands. In agricultural production areas in developing economies, economic growth has resulted in land use changes that cause soil runoff, leading to water quality deterioration and ecosystem damage in watersheds, with the risk of these negative impacts spreading downstream. For example, in trellis grape cultivation, where herbicides are used to remove groundcovers for operational efficiency, there is a risk of loss of biodiversity within the vineyard. Even in areas surrounded by rich natural environments such as mountains and forests, once an ecosystem is severely damaged, its recovery can be extremely difficult.

Additionally, it has been observed that agricultural land for food production is sometimes converted to land for biofuel crops due to higher selling prices. As biofuel crops are less subject to requirements related to appearance, taste, or health aspects, production tends to prioritize economic efficiency. This can lead to large-scale land use changes, expansion of monoculture, and heavy use of pesticides and fertilizers, increasing the risk of negative impacts on agricultural land and surrounding ecosystems.

Response Strategy

▶Promotion of regenerative agriculture

Regenerative agriculture restores soil health and enhances its carbon sequestration capacity, contributing to climate change mitigation. It also enables efficient and sustainable use of water resources while achieving improvements in crop yields alongside biodiversity restoration and conservation. However, barriers to widespread adoption include initial investment burdens, low market recognition, and insufficient agricultural support systems. The Kirin Group promotes regenerative agriculture through procurement of certified regenerative agricultural materials and collaboration with global alliances, contributing to the development of sustainable agriculture.

▶Ecosystem restoration activities focusing on hedgerow-style cultivation

In ecological surveys at vineyards, we observed that when seeds sown for slope greening and grass cultivation inadvertently contained invasive species, native plant species gradually spread and became dominant under favorable environmental conditions. Therefore, even if ecosystems are damaged, we believe that it is possible to restore ecosystems by restoring grassland through grass cultivation.

▶Enhancement of engagement with agricultural production areas

To advance ecosystem conservation and sustainable agriculture, collaboration with producers and local communities is promoted to support certification acquisition and the adoption of environmentally friendly agricultural practices. By strengthening engagement with farmers, we support the continuation of food crop production and help prevent the conversion of agricultural land to biofuel crops.

Activities

▶Procurement of certified regenerative agricultural raw materials

At Stone & Wood Brewery in Australia, a subsidiary of Lion, certified regenerative agricultural materials are actively procured. Barley, hops, and malt cultivated through regenerative agriculture are sourced from multiple suppliers, contributing to the promotion of soil health. These suppliers support the practice of regenerative agriculture to reduce environmental impact by introducing cover crops to promote soil health, utilizing compost and organic fertilizers, and adopting low-tillage farming methods to enhance the organic carbon content of the soil. Furthermore, crop rotation and the planting of diverse crops help maintain soil nutrient balance and reduce the burden on ecosystems caused by monoculture practices. To conserve water resources, we improve irrigation efficiency and promote water reuse, minimizing the use of pesticides and chemical fertilizers to prevent water pollution. In pest management, we apply approaches that leverage beneficial insects and consider the balance of the ecosystem, promoting soil microbial activity to reduce reliance on pesticides. Through these efforts, Stone & Wood Brewery advances the procurement of sustainable beer ingredients and contributes to ecosystem conservation and the long-term resilience of agriculture.

▶Launch of the regenerative tea scorecard

Kirin Holdings and Kirin Beverage, in collaboration with the Rainforest Alliance, have developed the "Regenerative Tea Scorecard" to support the transition to regenerative agriculture, and its operation began in December 2024. By the end of 2026, implementation of this tool is planned across two large farms and 60 small farms in Sri Lanka. This checklist-style guideline is designed for use in Sri Lankan tea farms to evaluate farming practices and environmental impact, making visible the practices needing improvement. The scorecard assesses the current state of farms based on indicators such as soil health, biodiversity conservation, ecosystem restoration, and improvement of working conditions, and provides concrete recommendations for transitioning to sustainable agriculture. Farms can use this scorecard to gradually advance their transition to regenerative agriculture.

▶Conversion of vineyards to hedgerow-style and biodiversity conservation

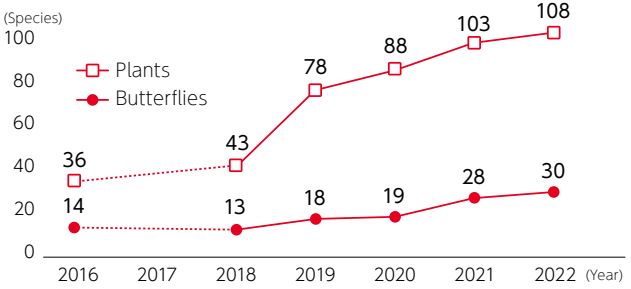
At Château Mercian, we are converting vineyard land from derelict farmland to cover cropping to promote biodiversity conservation. Grasslands, which occupied approximately 30% of Japan's land area 130 years ago, have now decreased to just 1% of the land. Grasslands harbor an extremely high proportion of endangered plant species per unit area and play a vital role in biodiversity conservation. By regularly mowing ground vegetation for hedgerow-style cover cropping, we create high-quality expansive grasslands. This allows native and rare species to thrive without invasive plants taking over. This farming method contributes to business growth while also creating valuable grasslands in modern Japan, expanding and protecting the rich Satochi-satoyama environment. As a result, many rare species, including endangered species, have been identified at Château Mercian Mariko Vineyard in Nagano Prefecture, as well as Tengusawa Vineyard and Jonohira Vineyard in Yamanashi Prefecture. These initiatives have been recognized, and these vineyards have been certified as OECM sites by Japan's Ministry of the Environment (Status of OECM certification → P.94).

Activities in Response to Significant Risks and Opportunities

Systemic Risk

As part of biodiversity conservation activities at Château Mercian Mariko Vineyard, collaboration with local NGOs and elementary school students is undertaken to increase the population of Sophora flavescens, the sole host plant of the critically endangered (IA) Large Shijimi Blue butterfly. Cuttings of Sophora flavescens growing on the ridges of rice paddies near the vineyard were taken, cultivated by children in flower beds at elementary school playgrounds, and then planted in the vineyard. Environmental education classes are also conducted for students, providing learning opportunities for children and collaborating with the local community. These initiatives contribute to raising awareness among the next generation about environmental conservation. In recognition of these efforts, the project was selected in 2024 by Japan's Ministry of the Environment as one of the "Top 100 Environmental Education and ESD (Education for Sustainable Development) Practice Videos," and was highly praised for exemplifying the principles of environmental education and ESD.

Recovery of Tengusawa Vineyard Ecosystem



▶Support for farmers through commercializing non-standard agricultural products

Under the "KIRIN HYOKETSU®" (hereinafter "HYOKETSU®") brand, we launched the "HYOKETSU® mottainai" project, which utilizes fruits as ingredients that were non-standard for fresh produce sales and destined for disposal. By reducing food loss and donating one yen per product sold to producers, we continue to support fruit farmers across Japan.

In May 2024, we launched the first product, "KIRIN HYOKETSU® mottainai HAMANASHI (Limited Edition)." The concept of combining great taste with social contribution resonated with consumers, and the product recorded the highest shipment volume among all "HYOKETSU®" limited-edition products in the past three years. In September, we donated approximately 6 million yen from a portion of sales to the Yokohama Agricultural Cooperative Fruit Department. The donation is being used for sustainable development of Hama-Nashi, including the purchase of seedlings.

In October of the same year, we launched the second product, "KIRIN HYOKETSU® mottainai PONKAN (Limited Edition)," reducing food loss equivalent to approximately 310,000 ponkan oranges from Kochi Prefecture. This project was recognized as an effective initiative with anticipated ripple effects from a food loss reduction perspective and received the "Jury Chair's Award" at the "Food Loss Reduction Promotion Awards" hosted by the Consumer Affairs Agency and the Ministry of the Environment—the first alcoholic beverage production to receive this honor.

In 2025, we expanded the "HYOKETSU® mottainai" project into a cross-company initiative called the "Turn Mottainai! into Delicious! Project." We entered into a collaboration with Oisix ra daichi Inc. and vivid garden Inc., which operates the farm-direct e-commerce site "Tabechoku," leveraging each company's strengths and networks to promote the use of non-standard fruits and support farmers. This new partnership aims to reduce 250 tonnes of discarded fruit annually, engage 100 producers, and involve 12 million customers.

In terms of product development, in June 2025, we launched "KIRIN HYOKETSU® mottainai Obanazawa Watermelon (Limited Edition)" made using non-standard watermelons from Yamagata Prefecture. In September, in collaboration with SEVEN-ELEVEN JAPAN Co., Ltd., we released "KIRIN HYOKETSU® mottainai Kiwi no Tamago™ (Limited Edition / Exclusive to SEVEN-ELEVEN, etc.)," and in November, we launched "KIRIN HYOKETSU® mottainai Fuji Apple (Limited Edition)" in collaboration with "Tabechoku." Furthermore, Oisix ra daichi Inc. launched "Kit Oisix," a meal kit utilizing non-standard "Hama-Nashi" puree, in August. The "Kirin Gogo-no-Kocha" brand also joined this project, launching "Gogo-no-Kocha mottainai Fuji Apple Tea" in December, thereby expanding initiatives beyond alcoholic beverages into other product categories.

These initiatives have been highly recognized, and in 2025 we received the Chairman's Award at the "Food Industry Mottainai Award" from the Ministry of Agriculture, Forestry and Fisheries.

Kirin Hyoketsu® mottainai Hamanashi
Kirin Hyoketsu® mottainai Nagori Ichigo (Limited Time Only)

▶Strengthening engagement in Sri Lanka

In Sri Lanka, a key sourcing region for raw agricultural materials for "Gogo-no-Kocha," the Kirin Group is strengthening a sustainable procurement foundation through a dual approach of environmental restoration and respect for human rights.

As part of environmental restoration efforts, support is provided for the acquisition of Rainforest Alliance certification, and the Regenerative Tea Scorecard is operated. The Regenerative Tea Scorecard has a lower barrier to entry than Rainforest Alliance certification, making it accessible to small-scale farmers. Direct engagement with farmers is conducted on-site, and field-based support is provided through the establishment of sustainable training systems led by local farm leaders.

As part of human rights initiatives, human rights due diligence was initiated in 2022. Since 2025, joint human rights due diligence has been conducted with upstream supply chain partners. Additionally, in collaboration with the University of Tokyo, we conduct worker interviews in local languages to advance initiatives that contribute to improved worker well-being.

Furthermore, in November 2025, we held a stakeholder forum locally to raise awareness among farmers and government officials. Through ongoing dialogue with stakeholders at production sites and comprehensive support, systems to establish and maintain sustainable supply chains are being strengthened.

Activities in Response to Significant Risks and Opportunities

Systemic Risk

Manufacturing Sales

Ecosystem damage due to leakage of pharmaceuticals [short to long term]

Ecosystem degradation due to the release of pharmaceuticals and chemicals represents a risk whereby these substances are discharged into the environment during production, use, and disposal, potentially impacting ecosystems. Once in the environment, pharmaceuticals can cause toxicity to aquatic organisms, habitat degradation, as well as bioaccumulation and biomagnification, potentially affecting food chain dynamics and ecosystem health. They may also contribute to the emergence and spread of antimicrobial resistance (AMR), leading to reduced efficacy of existing pharmaceuticals, increased healthcare costs, and the spread of infectious diseases. Furthermore, rising antimicrobial resistance may reduce demand for certain pharmaceuticals, potentially resulting in declining revenues.

This risk was newly identified in the integrated scenario-based risk and opportunity assessment conducted in 2025 (For details on integrated scenario-based risk and opportunity assessment (→P.20-21)). Going forward, we will develop and implement appropriate measures to mitigate this risk.

Activities in Response to Significant Risks and Opportunities

Business Opportunities/Market

Sales

Increasing distribution in infectious diseases caused by global warming [short to long term]

The WHO forecasts that climate change may result in approximately 250,000 additional deaths annually between 2030 and 2050 if it progresses. Cases of dengue fever are also expected to increase significantly. In Japan, the habitat of Aedes albopictus, a mosquito species that transmits dengue virus, was confirmed to have expanded as far north as Aomori Prefecture in 2015, indicating geographic expansion of infectious disease risks associated with warming. Based on WHO scenarios on climate change and health impacts, analysis of dengue virus infections estimates that approximately 1 billion people in East Asia and Southeast Asia could be exposed to infection risk. However, when economic growth is taken into account, the at-risk population in high-income countries in Asia and the Pacific, as well as in East Asia, is projected to decrease by approximately 25% by 2050.

Additionally, against the backdrop of increasing risks of infectious diseases such as COVID-19 and influenza, consumer interest in immune function is expected to rise. Considering these environmental changes, we anticipate increased demand for our products that support immune function.

Sales

Increase in heatstroke caused by global warming [short to long term]

Heatstroke cases are expected to increase as a result of the impact of global warming. Based on observational and forecast data on climate change from the National Institute for Environmental Studies, under the RCP8.5 scenario (equivalent to the 4℃ scenario in Kirin Group Scenario 3), the number of heat-related excess deaths in Japan is projected to increase to approximately four to more than ten times the level observed during 1981–2000 by the period 2080–2100.

Assuming the Japanese market for beverages that prevent heatstroke correlates with the number of people requiring emergency services due to heatstroke, demand for heatstroke prevention products may expand over the medium to long term as warming progresses.

Response Strategy

▶Contribution to health science domain

As an adaptation measure to climate change, we will provide products that help maintain immune function for healthy people. Supporting immune function is also positioned in the “Group Materiality Matrix (GMM)”.

▶Contribution with products to counter heatstroke

As an adaptation measure to climate change, we will provide products that help prevent heatstroke.

Activities

▶Contribution to health science domain

In 2021, the lineup of FFC products that “help maintain the immune system in healthy people” was expanded. Sales of such products began under the “Nama-cha” and “Gogo-no-Kocha” brands, which have a high level of brand recognition among consumers, in addition to yoghurt and supplement products. In B2B business models, licensing and the provision of functional materials to external partner companies in Japan and overseas were also undertaken, and a wide range of products, including snacks and protein products, were sold. As a result, annual sales increased 40% in 2023 compared with the previous year.

In order to offer products to more consumers, we began selling immunity-related beverages in 100ml PET bottles at general merchandise stores, drugstores, and convenience stores nationwide from the end of March 2022. In anticipation of the expansion of the market for immunity-related products, approximately 10 billion yen was invested in enhancing production facilities for small PET bottles at the Kirin Beverage Shonan Plant, thus developing a supply system for immunity-related beverages in small PET bottles, including 100 ml PET bottles.

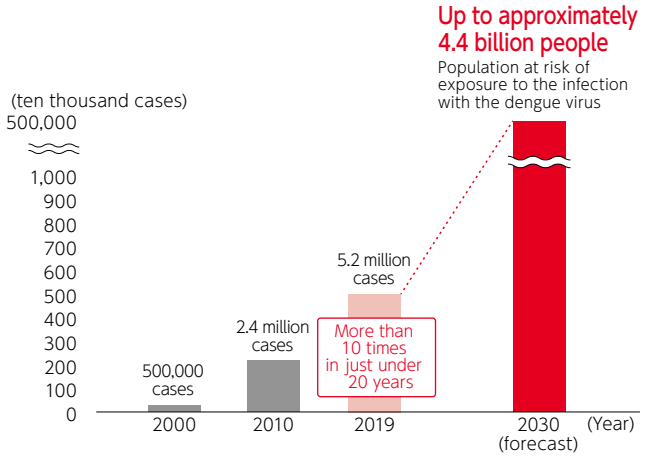
▶Contribution with products to counter heatstroke

In 2024, as part of our heatstroke prevention efforts, we provided “Kirin Sekai no Kitchen kara Salty Lychee 500ml PET” and “Original Thermometer Cards” at cooling shelters in 23 municipalities across 22 prefectures nationwide.

In 2025, we significantly expanded these efforts, extending coverage to 51 municipalities across 46 prefectures nationwide. We provided approximately 15,000 bottles of “Salty Lychee” and approximately 300 “Hitosuzumi Cases” for heatstroke awareness.

At Kirin Beverage, “heatstroke countermeasure advisors,” who have received certification for completing training courses held by the Heat Illness Prevention - Communication Project, hold seminars on heat stroke countermeasures at schools and other institutions.

Number of Dengue Fever Cases Reported to The WHO



Estimated based on the WHO’S “Quantitative risk assessment of the effects of climate change on selected causes of death, 2030s and 2050s” report.

Activities in Response to Significant Risks and Opportunities

Business Opportunities/Market

Research & Development Sales

Development of new markets and regions through research and development of new pharmaceuticals [short to long term]

Climate change and environmental shifts may generate new healthcare needs through the spread of infectious diseases and changes in health risks. By advancing research and development of novel pharmaceuticals to address these challenges, we can meet unmet medical needs while potentially expanding into new therapeutic areas and regional markets. These efforts contribute to both addressing social challenges and creating business opportunities.

This opportunity was newly identified in the integrated scenario-based risk and opportunity assessment conducted in 2025 (Details on integrated scenario-based risk and opportunity assessment (→P.20-21)). Going forward, we will advance consideration of response strategies while monitoring disease trends associated with climate change.

Activities in Response to Significant Risks and Opportunities

Business Opportunities/Products and Services

Sales

Increased expectations for products and services that contribute to decarbonization [medium to long term]

As interest in decarbonization grows, there is a possibility that demand will increase for products that contribute to decarbonization or the shift to a low-carbon society.

In the U.S., Australia, and New Zealand, carbon-neutral products are sold, and are somewhat popular in their respective markets. Although interest in carbon-neutral products may not be high in Japan at present, awareness of the SDGs has grown rapidly. As such, it appears there is a strong possibility that interest in ethical products will increase in the future.

Response Strategy

▶Provision of decarbonized products

Anticipating an increase in demand for alcoholic beverages and drinks that promote decarbonization, we will focus on product development and sales in this area.

▶Research and development contributing to climate change mitigation and adaptation

Grapes and hops, key agricultural raw materials, are highly sensitive to changes in climate and cultivation conditions. In recent years, climate change has already resulted in declining yields as well as changes in quality and flavor. To address these changes, the Kirin Group has advanced research and development in breeding and cultivation technologies as part of its adaptation efforts. In addition to these measures, we are pursuing mitigation initiatives by advancing R&D of technologies that reduce GHG emissions during agricultural cultivation and enhance forest carbon sequestration, thereby contributing to decarbonization.

Activities

▶Provision of decarbonized products

Steinlager, which Lion sells in New Zealand, has obtained certification as a carbon zero beer under the Toitū program by a body of the New Zealand government. In 2021, we featured the Toitū carbon zero mark in our marketing campaigns to highlight to consumers the commitment Lion has made to reducing GHG emissions through Steinlager and other products.

In May 2022, Lion began selling "XXXX Zero," Australia's first carbon neutral and alcohol-free beer. XXXX Zero has obtained carbon neutral certification in the form of Climate Active certification.

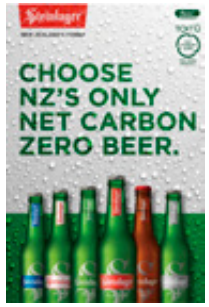
In Australia, Lion is preparing to acquire carbon neutral certification through Climate Active for many key products. In order to obtain certification, Lion is working to comply with the requirement that it must offset all GHG emissions from the complete life cycle of the product, including emissions from raw materials and packaging, distribution and product waste.

In 2020, New Belgium Brewing made "FAT TIRE ALE" the first carbon neutral beer in the United States. The carbon credits being purchased and amortized also contribute to economic support for converting farmers to regenerative agriculture.

New Belgium Brewery has created a beer named "TORCHED EARTH ALE" in 2021 to show consumers what the future of beer might taste like if climate change progresses. By demonstrating consumers the taste of beer made from ingredients likely to be available in a future where climate change has progressed, the company is drawing attention to the importance of reducing GHG emissions.

Stone & Wood, a subsidiary of Lion, is developing products using malt derived from regenerative agriculture. They support producers who incorporate regenerative agriculture into the cultivation of barley and hops, the main ingredients of beer. This approach focuses on long-term soil resilience and the health of local communities rather than short-term yields, resulting in fertile soil and carbon sequestration. Under the "Responsible Sourcing Policy," we began experimental brewing with sustainable grains in Byron Bay in 2022 and launched "Northern Rivers Beer" in 2024. This beer uses 70% certified sustainable malt and 100% sustainable hops and is initially available in the regions around the brewery. It has received high praise from customers as a drinkable lager-style beer.

Examples of Products that Contribute to Decarbonization



TOITŪ NET CARBON ZERO ISO 14064-1 ORGANISATION

Product photographs are as of the time that events occurred.

Activities in Response to Significant Risks and Opportunities

Business Opportunities/Products and Services

▶Promotion of the environmental value and sales of decarbonized products in the Japanese market

While awareness of ethical consumption is increasing in Japan, translating this interest into actual purchasing behavior remains a challenge. The Kirin Group addresses this gap by visualizing CO_2 reduction impacts of its products to encourage behavioral change among consumers.

Kirin Beverage introduced the "Decarbo Score," an indicator that quantifies product-level CO_2 reduction. This enables consumers to contribute to decarbonization through everyday purchases. Developed by Earth hacks Inc., the metric is based on ISO 14040/14044 standards and, in principle, quantifies CO_2 emission reductions across the product life cycle, from raw material procurement to disposal. For example, "Kirin Nama-cha 525ml" indicates a reduction of 52g CO_2e per bottle, making its contribution to decarbonization easily understandable.

Leveraging this initiative, Kirin Beverage participated in Kanagawa Prefecture's decarbonization campaign, "Kanagawa CO_2CO_2 Point+," also facilitated by Earth hacks Inc. The campaign awards points to consumers who purchase decarbonized products from participating retailers. It is part of the Ministry of the Environment's "Decokatsu" initiative. Fuji Citio Co., Ltd., a participating retailer, selected "Nama-cha" as an eligible product and installed dedicated displays at selected "Super Fuji" stores. As a result, sales volumes increased fourfold during the campaign period without changes to the retail price.

FANCL has also participated in "Kanagawa CO_2CO_2 Point+" for three consecutive years since fiscal 2023. In 2025, the company calculated "Decarbo Scores" for 13 refillable cosmetic products across 15 directly operated stores in Kanagawa Prefecture. As a result, sales volumes in October 2025 reached 1.2 times the previous year. Interviews with store staff revealed behavioral changes among customers, such as switching from regular bottles to refill products in response to the point-based incentive program.

These outcomes demonstrate that appropriate information disclosure can effectively drive changes in customer behavior, creating both social and economic value—even in Japan, where the connection between ethical consumption interest and actual purchasing behavior has been considered limited. We expect the market for decarbonized products to continue expanding as consumer interest grows.

Regarding carbon footprint calculations for beer and other beverages, Product Category Rules (PCRs) have been established under the CFP program operated by the Japan Environmental Management Association for Industry. Based on these PCRs, we are conducting carbon footprint assessments and continuing preparations to respond promptly to evolving trends in environmental labeling.

Decarbo Score for "Kirin Nama-cha 525ml"

Kirin Nama-cha 525ml

CO_2e reduction per container across the lifecycle (from raw material procurement to disposal) **52gCO_2e**

DECARBO SCORE 23% off

CO_2 emissions across the lifecycle for a 525 ml PET bottle using a conventional shrink label
223gCO_2e

CO_2 emissions across the lifecycle for a 525 ml PET bottle with a roll label and lightweight design
171gCO_2e

Measurement Tool/Reference Data: IDEA Ver.3.4 Measurement Month: 2025/08

▶Research and development contributing to climate change mitigation and adaptation

Research on agricultural raw materials that adapt to climate change is described on page 43 as part of our response to risks related to "Impact of climate change and nature loss on agricultural products." As a mitigation initiative, we launched a joint research project in March 2024 with the National Agriculture and Food Research Organization (NARO) at Château Mercian Mariko Vineyard to evaluate carbon sequestration effects. The study assesses carbon sequestration through biochar produced from vineyard pruning residues and other grape-growing byproducts.

To confirm that biochar application does not create additional environmental burdens, annual N_2O emission trends were monitored from February 2024 to October 2025 in grape cultivation plots of Merlot and Syrah varieties.

The results showed no significant differences in N_2O emissions between biochar-treated plots and untreated control plots, nor were varietal differences observed. These findings indicate that biochar application enables carbon sequestration without increasing N_2O emissions, confirming its effectiveness as a climate change mitigation practice compared to conventional farm management.

Additionally, the Beverage Future Research Institute has investigated the chemical, physical, and biological impacts of biochar application on beer barley cultivation as a technology contributing to GHG emission reductions. This research has been conducted since 2024 in collaboration with the Tochigi Prefectural Agricultural Research Center, Waseda University, and Kirin. Biochar derived from rice husks (100–500 kg/10a) was applied to experimental fields, and its effects on soil properties and yields were evaluated. The results confirmed increases in total carbon, available phosphoric acid, and exchangeable potassium, suggesting improved soil permeability. Sound grain weight increased by 3 to 11%, with carbon sequestration estimated at approximately 0.1 to 0.5 t-CO_2/10a. In addition, increases in specific bacteria and specific fungi, including arbuscular mycorrhizal fungi, were observed, indicating enhanced plant growth and nutrient cycling functions. These findings confirm the effectiveness of biochar in improving soil quality and fertility, with expected contributions to agricultural productivity. Patent protection related to this research was filed in February 2026.

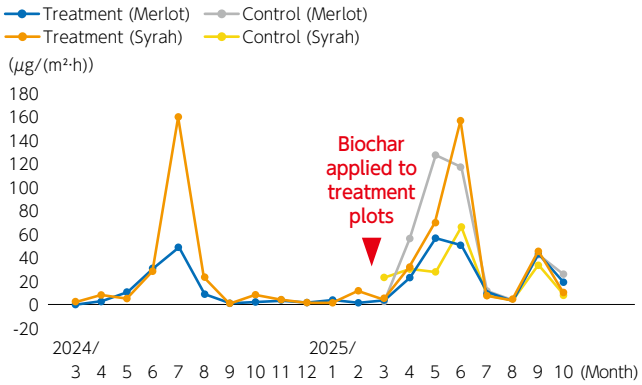
We have also initiated joint research toward the creation of forest-based carbon credits as a technological foundation contributing to climate change mitigation and nature restoration. We view this as an opportunity to address growing future market demand for high-quality credits (Details on forest-based carbon credit creation research (→P.62, P63)).

Activities in Response to Significant Risks and Opportunities

Business Opportunities/Products and Services

Biochar Made from Grapevine-Pruning Residues

Annual N_2O Emission Trends from Mariko Vineyard Fields



Activities in Response to Significant Risks and Opportunities

Business Opportunities/Products and Services

Sales

Increased revenue due to growing demand for products contributing to nature restoration [short to long term]

As societal awareness of biodiversity conservation and natural capital restoration grows, demand for products that contribute to nature conservation and restoration is expected to grow. By advancing the use of sustainable raw materials and offering products and services designed to reduce impacts on ecosystems, we aim to capture this demand and expand revenue opportunities.

Response Strategy

▶Response to product development contributing to nature restoration and Circular Economy

The Kirin Group positions food loss and waste as key challenges related to both Circular Economy and Nature Positive initiatives. We develop products that contribute to addressing these challenges and reducing food loss and waste.

▶Enhancement of consumer appeal through environmental certification labels

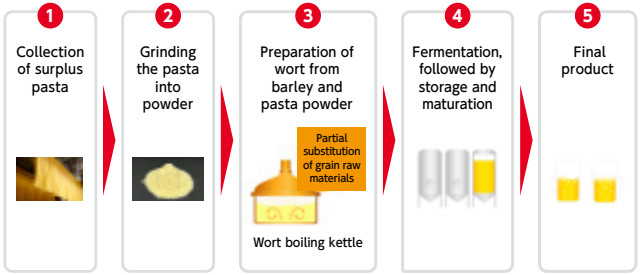
We display certification labels using certified raw materials and packaging to clearly communicate the environmental attributes and enhance consumer appeal.

Activities

▶Development of upcycled beer using surplus pasta

We are promoting product development utilizing ingredients previously discarded, achieving both efficient resource use and enhanced product value. In 2025, Kirin Brewery collaborated with Nisshin Seifun Welna to co-develop "Italian Red—Tomato & Pasta," an upcycled beer that partially replaces barley—the primary ingredient—with pasta that would have been discarded due to packaging damage during distribution. This product was offered in limited quantities at Spring Valley Brewery Tokyo starting in December 2025.

Production Process of Upcycled Beer



▶Development of fermentation materials from food byproducts (coffee cherry)

The Institute for Future Beverages developed fermentation materials utilizing the pulp and skin of coffee cherries—the red fruit of the coffee tree whose seeds become coffee beans—which are largely discarded after harvest and raise concerns about water quality and soil impacts. This material, which applies Kirin's proprietary aroma-enhancing technology, demonstrates characteristics that enhance body and flavor, suggesting potential to improve drinking satisfaction in non-alcoholic and low-alcohol beverages. It has been adopted in select products under the "Kirin Tokusei" brand for RTDs*1 products. By effectively utilizing parts normally discarded as valuable materials, contributions are made to waste reduction and the mitigation of environmental impacts while supporting the sustainability of coffee farms. Coffee farm income remains unstable due to coffee price volatility and low productivity from inadequate agricultural infrastructure. Additionally, environmental taxes on coffee cherry disposal—particularly in countries like Colombia—further increase the economic burden on farms. Through expanded use of this material, contributions are expected toward environmental impact reduction through waste minimization and improved income for coffee farms.

*1 Ready-to-drink alcoholic beverages: pre-mixed drinks ready to consume upon opening

▶Launch of limited-edition craft beer using surplus thinned grapes

Mercian participates in "Brewed with YAMANASHI," a regional collaboration project led by craft beer brewery Far Yeast Brewing, with the aim of promoting sustainable winemaking and regional revitalization in Yamanashi Prefecture. In 2025, Mercian provided 500kg of "thinned grapes"—removed during cultivation at Château Mercian Katsunuma Winery and typically not used for winemaking—to produce the upcycled craft beer "Far Yeast Grapevine 2025." Through collaboration with external partner companies to effectively utilize winemaking byproducts, we promote resource circulation, reduce food loss, and contribute to regional industry revitalization.

Far Yeast Grapevine 2025

▶Enhancement of consumer appeal through environmental certification logos

The Kirin Group displays Rainforest Alliance (RA) certification logos on product packaging that uses RA-certified raw materials. For paper containers and packaging, we use FSC®-certified paper—a forest conservation certification—and display the FSC certification logo. These efforts clearly communicate the environmental attributes of our products to consumers.

Rainforest Alliance (RA) Certification Logo

FSC Certification Logo

www.fsc.org

Activities in Response to Significant Risks and Opportunities

Business Opportunities/Resource Efficiency

Supply and Logistics

Sustainable logistics [short to long term]

To reduce GHG emissions, it is important to improve transportation efficiency. By doing this, we can also expect to solve chronic driver shortages.

As production sites are consolidated and production of small-volume products is centralized, transportation distances from plants to consumption areas have tended to increase. At the same time, securing long-haul truck drivers has become increasingly challenging in recent years. Long-distance transportation by truck is not only inefficient but also leads to higher GHG emissions, highlighting the need to address these logistics-related challenges.

Response Strategy

▶Reduction in costs from more efficient transportation

Various initiatives are being implemented to improve delivery efficiency and contribute to reducing logistics costs and GHG emissions, such as a modal shift, joint deliveries, and more efficient loading. Joint deliveries with other companies are actively promoted by positioning the logistics functions as non-competitive fields.

Activities

▶Joint delivery using railway containers

We are utilizing joint deliveries with railroad containers to transport products from breweries and plants in the Kansai area to the Hokuriku region, and plan to complete a modal shift away from long-distance truck transportation equivalent to 10,000 vehicles a year, which will enable us to avoid long-distance truck transportation, and we expect this to contribute to reducing annual GHG emissions by approximately 2,700 t. Details of joint delivery (→P.55)

Research & Development | Procurement

Reduction of container and packaging raw materials and stable procurement [short to long term]

Society continues to demand that companies address the issue of the 3Rs for containers and packaging. At the same time, this will contribute to reducing GHG emissions, making resource use more efficient, and reducing costs.

Beer and soft drinks are products that represent mass production and mass consumption, and they thus use many containers and packaging. Kirin Beer, Kirin Beverage, and Mercian, use 115,000 t of paper container packaging (Paper cartons, 6-pack Paperboard, Corrugated Boxes), and 66,000 t of PET bottles in Japan.

Response Strategy

▶Reduction of the weight of containers and packaging

The Institute for Packaging Innovation has accumulated technologies to reduce container weight while maintaining safety, quality, and functionality across diverse packaging formats. These technologies form a foundation not only for environmental responsibility but also for strengthening competitiveness in an era of resource constraints and enhancing business sustainability.

▶In-house packaging development capability

The Kirin Group operates the Institute for Packaging Innovation, which develops containers and packaging on a scale unparalleled among food, beverage, and health science companies globally.

Based on technologies accumulated through developing containers and packaging such as bottles, cans, PET bottles, and cardboard, we incorporate new technologies including AI and Kansei engineering. Our strength in large-scale research facilities enables technical support for commercialization and development of new containers.

By leveraging these strengths, we aim to develop advanced containers and packaging with lower GHG emissions across the entire value chain. This will contribute to reducing environmental impacts across society through the transition to a Circular Economy.

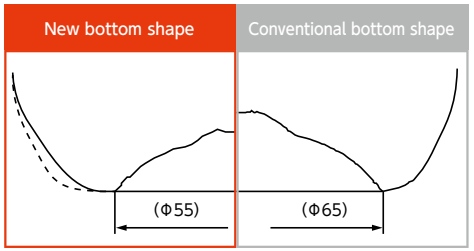
Activities

▶Lightweighting of PET bottles for wine

Since March 2022, Mercian has been using 720 ml PET bottles for wine that are 5 grams lighter than the previous version, weighing 29 grams. Additionally, starting in July 2024, Mercian began adopting the lightest 1500 ml PET bottles for wine in its history, developed by the Packaging Innovation Research Institute, and is gradually transitioning to these new bottles. The new 1500 ml PET bottles have been reduced from 58 grams to 53.5 grams, a 4.5-gram reduction. This change is expected to reduce PET resin usage by approximately 107 t and CO_2 emissions by about 346 t[*1] annually across all of Mercian's PET bottled wine products[*2].

*1 Based on 2023 sales performance, the estimate when all 720 ml and 1500 ml PET bottle wine products manufactured and sold by Mercian adopt this PET bottle container.
*2 Excluding products discontinued by the end of 2024.

1500 ml PET Bottle for Wine



Developed a new pressure-resistant bottom shape to suppress deformation

*Product designs shown are as of 2024.

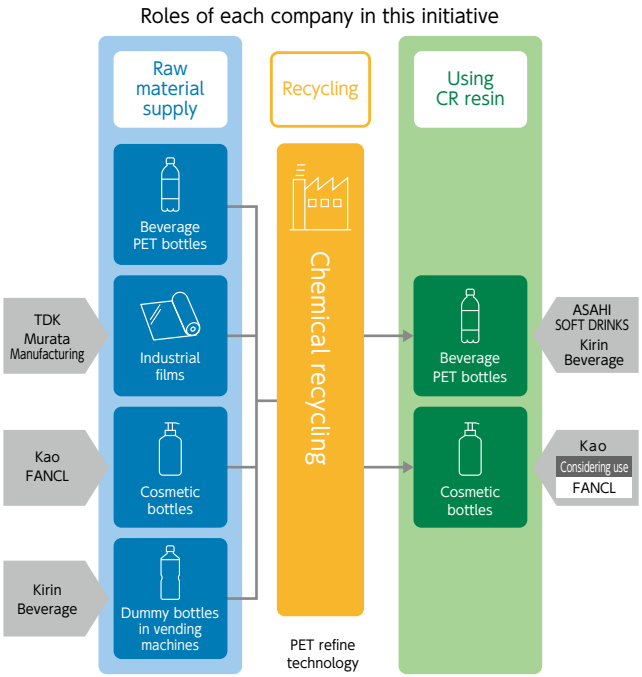
Activities in Response to Significant Risks and Opportunities

Business Opportunities/Resource Efficiency

Expansion of recycled materials through chemical recycling technology

The Institute for Package Innovation is promoting efforts to expand recycled PET resin by regenerating non-food-grade PET materials into beverage PET bottles. This initiative began trial operations in April 2025. Within a collaborative scheme involving companies from different industries, the laboratory led the safety evaluation of using chemically recycled resin, made from non-food-grade PET, in food containers. The results of this evaluation were presented at the 120th Annual Scientific Conference of the Japan Society for Food Hygiene and Safety, where it received the Young Excellence Presentation Award.

Scheme for Expanding Recycled Materials



Introduction of chemically recycled resin

In March 2023, Kirin Brewery became the first in Japan to introduce chemically recycled resin in PET bottles for alcoholic beverage, starting with 3L containers used in on-premise services. From December 2025, the use of chemically recycled PET has been further expanded to 1L bottles used in the subscription-based draft beer service “Kirin Home Tap.” Chemical recycling enables used PET bottles to be depolymerized and re-polymerized, achieving quality equivalent to virgin resin. This makes it possible to apply recycled resin in large PET bottles for beer, which require resistance to internal pressure from carbonation—an area that had been challenging for conventional mechanical recycling.

Development of pet bottles that simultaneously achieve design, functionality, and plastic reduction

Kirin Beverage developed the “Iced Tea Glass Bottle” a lightweight PET bottle developed for “Kirin Gogo-no-Kocha,” designing packaging that enhances functionality while reducing environmental impact. By incorporating diagonal ribs into the bottle body, the design maintains container strength and ease of handling while enabling a transition from conventional shrink labels to roll labels. This change reduced plastic use in the label portion by approximately 44%. The adoption of roll labels also resulted in annual reductions of approximately 117 t of plastic and 849 t of GHG emissions. Combining a transparent and refined appearance with usability and environmental considerations, this packaging design received the “Appropriate Packaging Award” at the Japan Packaging Contest 2025.

“Iced Tea Glass Bottle” for “Kirin Gogo-no-Kocha”

Activities in Response to Significant Risks and Opportunities

Business Opportunities/Energy Sources

Procurement Manufacturing Supply and Logistics

Reduction in reliance on fossil fuels, stable procurement of renewable energy, and promotion of energy conservation [short to long term]

Reducing fossil fuel use and transitioning to renewable energy enables stable energy procurement. Lowering dependence on fossil fuels also mitigates risks associated with price volatility and concentration of supply in geopolitically sensitive regions. A range of options exists for procuring environmental value, including on-site generation, purchases from retail electricity providers, renewable energy certificates, and corporate PPAs, each with its own advantages and disadvantages. When introducing renewable energy, we will prioritize environmental value that meets RE100 requirements. However, in Japan, medium- to long-term demand for renewable energy is expected to increase, potentially tightening supply-demand conditions.

Response Strategy

▶Achievement of an energy mix to achieve net-zero emissions

According to the Kirin Group's roadmap, the first step is to thoroughly implement energy-saving measures and then transition the primary energy source to electricity, actively incorporating electricity derived from renewable energy. By 2030, we aim to reduce the use of fossil fuels by advancing electrification in heating processes, thereby achieving a more sustainable energy mix.

▶Introduction of renewable energy without adverse impacts on the environment and local communities

We will introduce environmental values based on the principles of "responsible introduction of renewable energy" and "additionality."

Activities

▶Achievement of an energy mix to achieve net-zero emissions

Lion is installing electric boilers at its brewery in New Zealand, transitioning away from traditional fossil fuel-powered boilers. By reducing natural gas consumption, we are lowering direct reliance on fossil fuels while increasing the proportion of renewable energy in electricity consumption, further reducing fossil fuel dependence. We are also advancing pilot projects for the use of green hydrogen as an alternative to fossil fuels, contributing to the realization of sustainable energy use.

▶Introduction of renewable energy without environmental or community impacts

In July 2021, the Kirin Group established our policy on the introduction of environmental value, with the basic policies of the "responsible introduction of renewable energy" and "additionality" when introducing renewable energy. With regard to the "responsible introduction of renewable energy." We prioritize ethics and select what "causes no harm to the environment and does not violate human rights when power plants are constructed and fuel is procured." We also set forth examples of expected risks in relation to each source of power, including solar power, wind power, and biomass, and we check these risks in advance. With regard to "additionality," our policy is to "replace thermal power by creating new renewable energy power generation facilities in society, and thereby contribute to the creation of a decarbonized society."

▶Prioritization of additionality in renewable energy use

The Kirin Group prioritizes procurement from new power plants with additionality to achieve our renewable energy targets. We have launched the first virtual PPA[*1] contract in Japan in February 2026. We plan further expansion going forward. When procuring renewable energy, we execute after confirming and evaluating financial impacts and sustainability risks across the Group. We have also advanced the introduction of solar power through the PPA model at beer plants, with installation completed at all domestic beer breweries except for the Yokohama plant, which has its own solar power setup. Installing solar panels in our own breweries ensures that the power plants can reliably add renewable energy, without any negative impact on the local community, while at the same time enabling us to use such energy in a stable manner. (Details on renewable energy →P.77).

*1 PPA (power purchase agreement) is a business model where the PPA provider installs solar power generation equipment on the premises or rooftops of the electricity consumer at no cost and sells the generated electricity to the consumer.

Activities in Response to Significant Risks and Opportunities

Business Opportunities/Resilience

Procurement

Strengthening the supply chain [short to long term]

Efforts to strengthen sourcing of agricultural raw materials and reduce Scope 3 emissions are expected to enhance supply chain resilience.

By deepening engagement with suppliers and sourcing regions, identifying key challenges, and working collaboratively to address them, we can strengthen the resilience of suppliers, production regions, and the Kirin Group as a whole.

Response Strategy

▶Enhancement of engagement

In addition to sourcing regions, we will further strengthen engagement with suppliers.

Activities

▶Enhancement of engagement in sourcing countries

Every year, we visit tea plantations in Sri Lanka, where we engage with local managers, workers, and NGO representatives. Through these engagements, a deeper understanding has been gained of the severe impacts of climate change—particularly intensified rainfall—on tea plantations. We thus promote actions such as strengthening training on soil erosion prevention and encouraging participation in watershed conservation initiatives. (Details of training →P.51)

▶Enhancement of supplier engagement

In Australia, Stone & Wood, Lion's craft beer subsidiary, is strengthening its engagement with suppliers of barley, malt, and hops. To promote the spread of regenerative agriculture, Stone & Wood launched a joint project with an NPO in 2024. Through financial support from the "Ingrained Foundation", a not-for-profit funding platform, we are fostering the industry for "GOOD GRAIN." This initiative will positively impact agriculture as a whole, contributing to the establishment of sustainable grain procurement routes and raising public awareness.

We have conducted detailed surveys related to the reduction of Scope 3 emissions, in addition to making requests and performing checks based on the Sustainable Supplier Code, and we base our engagement with stakeholders on the results of these surveys. The results of surveys and supplier evaluations are shared with suppliers. Where risk mitigation measures are found to be insufficient, we conduct additional assessments and request corrective actions or provide improvement support as needed. In addition, we launched Supply Chain Environmental Program in 2024 together with suppliers with high emissions. We will jointly solve issues as we target decarbonization through initiatives such as the mutual disclosure of data, setting targets that meet the SBT standards, and the identification of new measures. As a result of ongoing activities, the proportion of primary data collected (Tier 1 suppliers' Scope 1+2) reached 77% in 2025 (Details on primary data collection rates →P.59). Regarding aluminum, which accounts for a particularly large share of Scope 3 emissions, Kirin Brewery has obtained primary data on the can production process from suppliers and incorporated it into the calculation of emissions. As a result of these efforts, the emission reduction rate for the aluminum can manufacturing process has increased by 12% compared with previous literature data, and Kirin Brewery is expected to reduce Scope 3 emissions by approximately 1%. By using primary data, it is possible to reflect the actual GHG emission reduction efforts of each supplier in the production process as numerical values, which is expected to increase the motivation of each supplier to implement GHG reductions.

As a cross-industry initiative, collaboration is undertaken through The Consumer Goods Forum (CGF) with retailers, food companies, and raw material suppliers on initiatives such as developing a decarbonization support platform for suppliers. In addition, through the "Working Group on Addressing Social Issues," a consortium of five beverage companies including Kirin Beverage, exploration has begun of a new scheme to enable the purchase of non-fossil certificates derived from surplus electricity generated by solar panels installed at supplier facilities and not consumed on-site. This scheme is expected to promote the adoption of renewable energy among suppliers and strengthen collaboration.

Research & Development | Procurement

Enhancement of ecosystem services through crop breeding and advances in cultivation technologies [short to long term]

Advances in crop breeding and cultivation technologies can improve environmental adaptability and productivity of agricultural crops, contributing to the maintenance and enhancement of ecosystem services such as soil health and water resource conservation. This is expected to increase agricultural resilience to environmental changes, including climate change, thereby supporting stable raw material procurement and promoting sustainable agriculture.

This opportunity was newly identified in the integrated scenario-based risk and opportunity assessment conducted in 2025 (Details on integrated scenario-based risk and opportunity assessment →P.20-21). Kirin Holdings has accumulated extensive knowledge in plant research and cultivation technologies over many years. To address risks to agricultural production arising from climate change and natural environmental changes, we have developed and applied mass plant propagation technologies and bred heat- and drought-resistant varieties (Details →P.44). Going forward, we will not limit these technological capabilities to risk response and adaptation. Instead, we will leverage them proactively for mitigation and for creating opportunities and solutions to social challenges. For example, as part of efforts to translate the value of natural capital into social and economic value, we have initiated joint research to create high-quality forest-based carbon credits by applying our mass plant propagation technologies (Details on forest-based carbon credit creation research →P.62-P63).

Activities in Response to Significant Risks and Opportunities

Business Opportunities/Capital Flows and Financing

Research & Development

Increase and diversification of available subsidies and financing due to strengthened nature-related policies [short to long term]

As governments strengthen policies emphasizing biodiversity conservation and natural capital restoration, subsidy programs and preferential financing schemes for environmentally responsible businesses and Nature Positive initiatives are expanding. This enables companies engaged in nature conservation activities and sustainable resource use to access a broader range of financing options, thereby reducing initial investment burdens and creating opportunities for business expansion.

The Kirin Group utilizes sustainable finance, including green bonds and transition-linked loans, to accelerate efforts addressing environmental challenges. Going forward, we will continue monitoring environmental policy trends while organizing and evaluating available support schemes such as subsidies and preferential financing for the Kirin Group, exploring optimal funding strategies to accelerate environmental investments. For details on sustainable finance, please visit: https://www.kirinholdings.com/en/investors/sustainability/sustainable_finance/

Activities in Response to Significant Risks and Opportunities

Business Opportunities/Reputational Capital

Sales

Enhanced brand value through recognition of nature-related initiatives [short to long term]

By advancing biodiversity conservation and natural capital restoration, and appropriately disclosing the outcomes, companies can enhance stakeholder recognition and strengthen brand value. This, in turn, is expected to increase corporate value by building consumer trust and preference, as well as improving evaluations from investors and business partners.

Response Strategy

▶Appropriate communication with consumers

We will enhance communication with consumers through the use of environmental certifications and labels. In particular, we place a strong emphasis on engagement with younger generations who will shape the future.

▶Appropriate disclosure in line with TCFD and TNFD recommendations

We encourage investors who support these initiatives to provide funds by disclosing information in a holistic, appropriate manner, in relation to climate change and the mutually related themes of natural capital and the Circular Economy.

Activities

▶Communication with consumers through environmental value visualization

We promote initiatives that clearly communicate environmental value by visualizing products' CO_2 reduction effects using the "Decarbo Score." Kirin Beverage's "Nama-cha" displays the Decarbo Score and was selected as an eligible product for Kanagawa Prefecture's decarbonization campaign "Kanagawa CO_2CO_2 Point+" (part of the Ministry of the Environment's nationwide "Decokatsu" initiative). When featured in dedicated displays at select supermarkets, sales volumes increased significantly despite unchanged pricing. These results demonstrate that visualizing environmental value and appropriately communicating it to consumers can enhance brand perception and support (Details →P.72).

▶Engagement with the next generation

The Kirin Group uses raw materials certified by Rainforest Alliance (RA). We display the RA certification logo on packaging for applicable products to communicate with consumers. Additionally, major paper-based containers and packaging used in Japan is sourced from FSC®-certified materials, with the FSC —a forest conservation certification—logo clearly intidated. Since 2014, we have been hosting "Kirin School Challenge" workshops for junior and senior high school students with the theme of promoting these certifications. The workshops prioritize not simply introducing the certification system but rather communicating with junior high and high school students. They enable students to discuss, think about, and share what they should convey to their peers and how. In 2025, we held two "School Challenge" programs to communicate the significance and key concepts of FSC and RA certifications.

Additionally, in November 2025, we launched the "Kirin Nature School in Sri Lanka" at tea plantations as an environmental education initiatives for the next generation, aimed at achieving a Nature Positive society. The program targets local primary and junior secondary schools attended by children of plantation workers, delivering classes centered on coexistence with nature and conveying the importance of environmental conservation and biodiversity. Alongside our ongoing support for the transition to regenerative agriculture, we will continue raising awareness among younger generations who will shape the future. Through these initiatives, we aim to work together with local communities to sustainably conserve rich natural environments and pass them on to future generations.

▶Appropriate disclosure aligned with TCFD and TNFD recommendations

The Kirin Group has disclosed detailed information on climate change and other environmental matters through integrated reports and environmental reports. We have disclosed information continuously in accordance with the TCFD recommendations since 2018, referencing the TNFD framework beta version since 2022, and the TNFD recommendations and ISSB exposure drafts since 2023.

These efforts have been highly recognized by external stakeholders. "Gold Awards" were received four times in the Environmental Sustainable Companies category of the "ESG Finance Awards Japan" of the Ministry of Environment in 2019, 2020, 2024, and 2025. In the "Excellent TCFD Disclosure" selection commissioned by GPIF for asset managers managing domestic equity investments, the highest number of votes was received in 2022 and 2023, the second-highest number of votes in 2024, and selection was achieved again in 2025. Additionally, we received the most votes in GPIF's inaugural "Excellent TNFD Disclosure" published in 2025.
In 2025, as a partner of the Nature Positive Initiative (NPI), we participated in a pilot test for developing TNFD's "State of Nature" indicators, advancing methodologies for the quantitative assessment of natural capital. In Sri Lanka, joint research with the University of Tokyo at tea plantations enabled us to quantify the impacts of regenerative agriculture, confirming 176 plant and animal species and demonstrating contributions to biodiversity conservation. These efforts contribute to the advancement of TNFD's global indicator framework and evaluation methodologies while positioning the Kirin Group at the forefront of natural capital initiatives (Details of pilot test →P.26).

In the same year, we participated in the TNFD Nature Transition Plan Pilot Program and developed a nature transition plan for New Belgium Brewing's Fort Collins Brewery. Located in the water-stressed Colorado River Basin, the brewery faces significant water-related risks. As part of the pilot, we a plan to improve water use intensity and promote the harmonious coexistence of business operations with society and the environment. Through this process, we reaffirmed the importance of a landscape approach—engaging and collaborating with watershed stakeholders. The operational process of this initiative was featured in TNFD's "Guidance on nature in transition plans" in November 2025. As a participant in the pilot program, we contributed to the development of global standards (Details of nature transition plan pilot program →P.27).

Metrics and Targets Corresponding to Various Disclosure Frameworks

Progress on Medium-term GHG Emissions Reduction Target Approved by SBT (2025)

▶Scope1+2 emissions

(unit : tCO_2e)

	Total
Scope1+Scope2 (Market-based method)	561,997
Scope1	372,350
Scope2 (Market-based method)	189,647
Scope2 (Location-based method)	342,338
Reduction rate (compared to 2019 base year)	-32%

▶Scope3 emissions

			Total
Scope3			5,265,794
Upstream	1	Purchased goods and services	3,571,394
	2	Capital goods	177,443
	3	Fuel and energy-related emissions not included in Scopes 1 and 2	132,090
	4	Transportation and distribution (upstream)	538,133
	5	Waste generated in operations	33,769
	6	Business travel	12,044
	7	Employee commuting	23,664
	8	Leased assets (upstream)	0
Downstream	9	Transportation and distribution (downstream)	352,676
	10	Processing of sold products	0
	11	Use of sold products	328,951
	12	End-of-life treatment of sold products	93,611
	13	Leased assets (downstream)	2,021
	14	Franchises	0
	15	Investments	0
Reduction rate (compared to 2019 base year)			-22%

Impact for Circular Economy (2025)

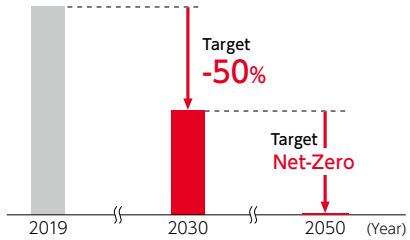
▶Reduction in impact

		Total
Material Reduction through Lightweighting (KB, KBC)	Aluminum cans	22,932t
	Glass bottles	632t
	PET bottles	12,588t
	Cardboard cartons for products	5,708t
	6-can packs	3,773t
Returnable glass bottles (KB)	Collection rate	97%

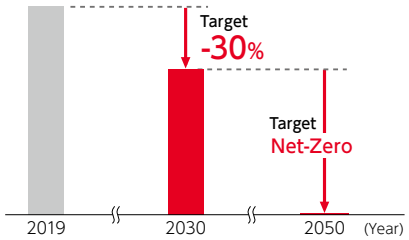
Please refer to the following for other indicators
- The total amount of energy : Published under "Material Balance", "Material Flow (entire Group, each segment)" in the "ESG Databook".
- The percentage of energy it consumed that was supplied from grid electricity : Published under "Material Balance", "Material Flow (entire Group, each segment)" in the "ESG Databook". (Only total energy consumed and energy derived from grid electricity are disclosed)
- The amount of water consumed in its operations : Published under "Water Resources", "Trends in annual Total water withdrawal by water source (entire Group)", "Trend in wastewater volume by destination (entire Group)" in the "ESG Databook".
- The total weight of packaging purchased by the entity : Published under "Material Balance", "Material Flow (entire Group, each segment)" in the "ESG Databook".
- Reducing packaging footprints : Published under "Containers and Packaging", "Volume of resources used by container(Major companies in Japan)" in the "ESG Databook".

Target

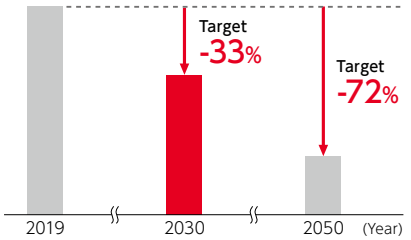
Total Emissions Reduction Targets for Scope1+2 (nonFLAG)*1



Emissions Reduction Target*1



Emissions Reduction Target*2

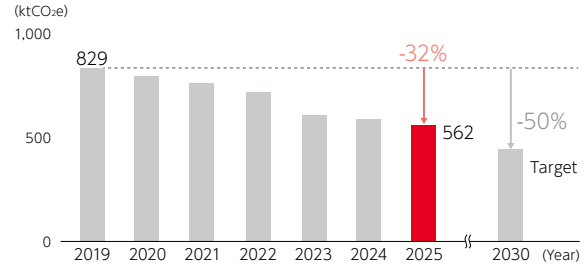


*1 In December 2020, we upgraded our previous "SBT for 2℃" target, and received approval for our "SBT for 1.5℃" target.
*2 FLAG (Forest, Land and Agriculture): Emissions from forest, land, and agriculture. Based on SBTi standards, FLAG-related emissions within Scope 1+2+3 are managed separately.

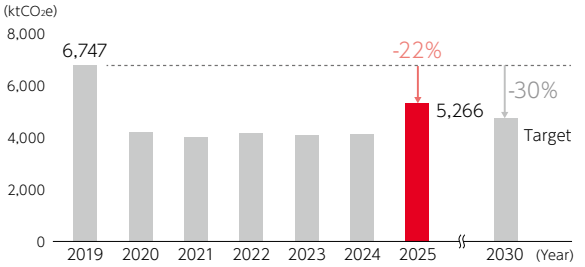
Progress

Progress toward Medium-term GHG Emissions Reduction Targets

Total emissions for Scope 1 and Scope 2

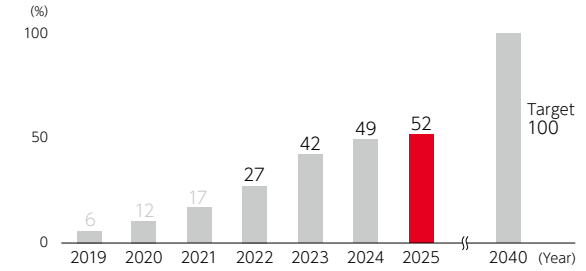


Scope 3 emissions



Progress toward The Target for Increased Use of Renewable Energy

Ratio of renewable energy in plant purchased electric power



Metrics and Targets Corresponding to Various Disclosure Frameworks

TNFD Core Global Metrics and Core Sectorspecific Metrics

Measurement Index numberment	Key factors of changes in nature	Indicator	Details of the measurement Index
–	Climate change	GHG emissions	Published under "Metrics and Targets", "Progress on medium-term GHG emissions reduction target approved by SBT" in this report (→P.81)
C1.0	Land/ freshwater/ ocean-use change	Total spatial footprint	For agricultural products subject to materiality analysis, the FAO Indicates the following acreage per unit yield (ha/t/year). ●Corn: 0.09 ●Barley: 0.25 ●Wheat: 0.35 ●Rice: 0.16 ●Soybeans: 0.50 ●Sugarcane: 0.01 ●Hops: 0.77 ●Black tea leaves: 0.14 ●Green tea leaves: 0.12 ●Oolong tea leaves: 0.23 ●Coffee beans: 0.59 ●Powdered milk/raw milk: - ●Grapefruit: 0.04 ●Lemon: 0.05 ●Orange: 0.03 ●Grape: 0.10 ●Apple: 0.04 ●Tomato: 0.01 ●Plum: 0.29 ●Palm Oil: 0.06
C1.1		Scope of land use change	Rainforest: 42,592ha (Area of tea farms In Sri Lanka that have obtained Rainforest Alliance certification with the support of the Kirin Group) Temperate monsoon: approximately 50ha (area of self-managed vineyards in Japan)
		Land areas that have voluntarily conserved or restored ecosystems	All of the following represent achievements through voluntary conservation and restoration efforts. 42,592ha (Area of tea farms in Sri Lanka that have obtained Rainforest Alliance certification with the support of the Kirin Group) 32.19 ha (the area of micro watersheds within Sri Lankan tea farms conserved with the support of the Kirin Group.) Approximately 50ha (area of self-managed vineyards in Japan) 92ha (area of farms implementing Regenerative Tea Scorecards *calculated based on one large farm (17 ha) and 30 smallholder farms (2.5 ha each)) 735.48ha (area of water source forests)
C1.1		Land managed in a sustainable manner	37.4ha (the area of Mariko Vineyard and Jonohira Vineyard certified as Other Effective area-based Conservation Measure (OECM))
C2.0	Pollution/ pollution removal	Total amount of pollutants released into soll by type	No release of pollutants into soll at plants/breweries. Vineyards for Japan Wine and Sri Lankan tea farms (suppliers) use agricultural chemicals listed on white lists within standards Fertilizer usage per hectare for each agricultural product is shown below. *Values are calculated as weighted averages using country-level data from IFASTAT (2018), based on each country's share of total procurement volume for each agricultural product. ●Corn: 269.8 ●Barley: 126.6 ●Wheat: 67.0 ●Rice: 200.3 ●Soybeans: 127.0 ●Sugarcane: 191.3 ●Hops: 95.8 ●Black tea leaves: 40.8 ●Green tea leaves: 681.0 ●Oolong tea leaves: 678.0 ●Coffee beans: 79.0 ●Grapefruit: 274.1 ●Lemon: 171.2 ●Orange: 149.0 ●Grape: 169.5 ●Apple: 832.0 ●Tomato: 388.0 ●Plum: 832.0 ●Palm oil: 325.6
C2.1		Drainage	Wastewater volume by destination: Published under "Water Resources", "Trend in wastewater volume by destination (entire Group)" in the "ESG Databook". Pollutants in wastewater: Published under "Reduction of Waste and Prevention of Pollution", "Wastewater quality (entire Group)" in the "ESG Databook".
C2.2		Waste generation and treatment	Volume of waste generated: Published under "Reduction of Waste and Prevention of Pollution", "Volume of waste generated" in the "ESG Databook". Breakdown of waste treatment: Published under "Reduction of Waste and Prevention of Pollution", "Trends in volume of waste generated and recycling rates (Japan)" in the "ESG Databook".
C2.2 (Additional sector guidance – Beverages)		• Total weight of packaging • Proportion (%) made from recycled (ISO 14021) or renewables materials • Proportion (%) that is recyclable, reusable, or compostable	Total weight of packaging: Published under "Material Balance", "Material Flow (entire Group, each segment)" in the "ESG Databook". Proportion (%) made from recycled (ISO 14021) or renewables materials: Published under "Metrics and Targets", "Social resistance to fossil-derived raw materials" (→P.61) in this report. Proportion (%) that is recyclable, reusable, or compostable: Published under "Environmental Management", "Commitments and Performance" (→P.13) in this report.
C2.3		Plastic pollution	81,586t (the amount of PET bottles used, assuming most of our plastic usage is PET resin for bottles)
C2.4		Total air pollutants other than greenhouse gases	Published under "Trends in Air Pollutant Emissions" and "Trends in emissions of NOx and SOx" in the "ESG Databook"

Metrics and Targets Corresponding to Various Disclosure Frameworks

Measurement Index numberment	Key factors of changes in nature	Indicator	Details of the measurement Index
C3.0	Resource use/ replenishment	Water Intake and consumption from water-scarce regions	Water withdrawal: 1,164,980 m³ Water consumption: 601,049 m³
C3.0 (Additional sector guidance – Beverages)		• Breakdown of the water withdrawn from each source • Ratio of water recycled/reused in production process.	Breakdown of the water withdrawn from each source: Published under "Water Resources", "Trends in annual Total water withdrawal by water source (entire Group)" in the "ESG Databook". Ratio of water recycled/reused in production process: Published under "Water Resources", "Trend in use of recycled water in entire Group manufacturing plants and business locations" in the "ESG Databook".
BC3.0 (Additional sector guidance – Beverages)		Water replenishment Volume (m^3) of water restored/replenished in basins where water is withdrawn	3,101,632 m³ (total annual water recharge capacity of water source forests (11 locations in Japan))
C3.1		Amount of high-risk natural primary products procured from land	130,605,183.3t (total procurement weight of raw materials classified as High Impact Commodities as defined by SBTN) Palm oil usage: Published under "Biological Resources", "Purchase volume of palm oil used as a primary raw material", "Purchase volume of palm oil and palm kernel oil used as secondary raw materials" in the "ESG Databook"
		Quantity of high-risk natural commodities(tonnes) sourced under a ustainable management plan or certification programme, including proportion of total high-risk natural commodities.	Percentage of palm oil and palm kernel oil used as primary and secondary raw materials that is sourced as RSPO-certified or via credit purchases: Published under "Biologocal Resources", "The proportion of RSPO-certified oil (Mass Balance model) purchases and RSPO credits (Book & Claim model) relative to the total volume of palm oil and palm kernel oil used as primary and secondary raw materials within the Group." in the "ESG Databook"
BC3.1 (Additional sector guidance – Beverages)		Water use Volume of water consumed (m^3), split by source, including water from third parties.	Published under "Water Resources", "Trends in annual Total water withdrawal by water source (entire Group)", "Trend in wastewater volume by destination (entire Group)" and "Trend in use of recycled water in entire Group manufacturing plants and business locations" in the "ESG Databook".
C4.0	Invasive alien species and other	Placeholder Indicator (measures against Invasive species)	We have not performed calculations because it is a placeholder Indicator and detailed criteria are unclear
C5.0	State of nature	Placeholder Indicator (status of the ecosystem)	Participated in pilot testing for the development and verification of TNFD "state of nature" and other indicators At tea farms in Sri Lanka, established ecosystem condition baselines (e.g., biodiversity, habitat connectivity) through biological surveys and drone analysis, assessed species extinction risk by identifying Red List species, and contributed to TNFD indicator development
		Placeholder Indicator (species extinction risk)	
C7.0	Risk	Financial impact on assets, liabilities, revenue, and expenses assessed to be at risk from nature-related transition risks	●Sustainable Scenario: Approximately 0.9 billion yen to 4.1 billion yen (2050) ●Middle Degradation Scenario: Approximately 2.2 billion yen to 6.6 billion yen (2050) ●High Degradation & Climate Change Progression Scenario: Approximately 2.2 billion yen to 8.1 billion yen (2050) (Financial impact on agricultural products due to carbon pricing)
C7.1		Financial impact on assets, liabilities, revenue, and expenses assessed to be vulnerable to nature-related physical risks	●Sustainable Scenario: Approximately 0.9 billion yen to 2.6 billion yen (2050) ●Middle Degradation Scenario: Approximately 1.3 billion yen to 3.1 billion yen (2050) ●High Degradation & Climate Change Progression Scenario: Approximately 3.1 billion yen to 12.1 billion yen (2050) (Financial impact on decline in yields of agricultural products from climate change)
C7.2		Fines Incurred during the fiscal year due to negative impacts related to nature. Fines, detalls and amounts of lawsuits filed	None
C7.3	Opportunity	Amount of capital expenditures or investments targeting naturerelated opportunities, by type of opportunity, with reference to the green Investment taxonomies of governments or regulatory authorities, where relevant, or third-party Industry or NGO taxonomies	Approximately 242 million yen (expenditures for certification acquisition support at tea farms in Sri Lanka and coffee farms in Vietnam, regenerative agriculture promotion and water source conservation activities in Sri Lanka, and ecosystem surveys at vineyards for Japan Wine)
C7.4		Growth and percentage of revenue from products and services that have a viable positive impact on nature, and explanation of those Impacts	We expect that this would cover products such as Kirin Gogo-no-Kocha made with tea leaves from certified farms and Japan Wine made with grapes grown in hedgerow-style vineyards that contribute to Nature Positive, but we have not estimated the financial Impact. Through the "Hyoketsu Mottainai Project" using nonstandard fruit, we sold 270,000 cases of "Hamanashi" and 270,000 cases of "Ponkan" in 2024. These initiatives reduced food loss equivalent to approximately 34,000 Yokohama specialty Hamanashi pears*1 and approximately 310,000 Kochi Prefecture Ponkan citrus fruits*1, and generated approximately ¥11.7 million*2 in donations to fruit farmers. *1 Calculated based on 2024 shipment records *2 Calculated based on: (1) shipment volume of "Kirin Hyoketsu Mottainai Hamanashi" (¥1 per bottle from launch to end of August), (2) sales at events held on May 11–12 (¥200 per bottle), (3) number of SNS posts during the same event (¥100 per post), and shipment volume "Kirin Hyoketsu® Mottainai Ponkan (Limited Edition)" (¥1 per bottle from launch to end of December)

External Evaluation

The Kirin Group conducts transparent information disclosure to its investors and other stakeholders.
As such, we have been selected for and rated by the following global indices.

Major Awards

CDP Water Security A List

Achieved inclusion in the Water Security A List
for the 10th time
(10 consecutive years)

Nikkei SDGs Management Grand Prize

7th Grand Prix

ESG Finance Awards Japan Environment Sustainable Category

Gold Award for the 1st and 2nd awards
Special Award for the 4th awards
Gold Award for the 5th and 6th awards*

*Declined the third award as we had already won the award two consecutive years

Major Stock Indices in Which The Kirin is Included