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Environmental Report 2026



Contents

About This Environmental Report	3
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Message from Top Management

Message from the President & COO	5
Message from the Officer in Charge of CSV Strategy	6

Environmental Management

Corporate Data	7
Identification of Materiality	8
Global Trends and Kirin Group's Actions	9
Kirin Group's Value Creation Model	10
Kirin Group's Environmental Vision 2050	11
Commitment and Performance	13

Governance

Governance	15
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Strategy

Scenario Analysis	17
Assessment of Risks and Opportunities	18
Financial Impact	28
Transition Plans	29

Risk and Impact Management

Risk and Impact Management	37
Significant Risks and Opportunities	39

Metrics and Targets

Value Chain Overview and Linkage with Significant Risks and Opportunities	42
Activities in Response to Significant Risks and Opportunities	43
Column: R&D Strategy in the Environmental Field and Advancing Forest-Based Carbon Credits	63
Metrics and Targets Corresponding to Various Disclosure Frameworks	81
External Evaluation	84

Appendix

Environmental Policy	86
Policies on Biological Resources	87
Other Policies	88
Policy Recommendations	89
Voluntary Participation Leading to Policy Recommendations	90
Sustainable Finance	92
Environmental Management Certification Status	93
External Awards	94
Other Information Disclosure	95
References	96

About This Environmental Report

Editorial Policy

Beginning with Fermentation and Biotechnology that the Kirin Group cultured through our founding beer business for over a century, we have a globally unique business portfolio that expands the three domains of Food & Beverages, Pharmaceuticals, and Health Science.

The sales mix of the Kirin Group's fiscal year 2025 financial results was as follows: "Alcoholic Beverages" accounted for 44%, "Non-alcoholic Beverages" for 24%, "Pharmaceuticals" for 20%, and "Health Science" for 10%.

The Kirin Group places CSV (co-creation of social and economic value) at the core of its business operations and aims to achieve sustainable growth through the cycle of value creation. Among these, we have set the environment as one of the social issues we focus on. The editing of this report has taken into account the characteristics of the Kirin Group's business and the positioning of its environmental approaches.

Structure of Corporate Information Disclosure

Information on the corporate activities of the Kirin Group, including this report, discloses a diverse range of information in the interests of shareholders and investors, as well as wide range of stakeholders in various communities, including our customers.

Kirin Holdings CSV (Creating Shared Value) Site

<https://www.kirinholdings.com/en/sustainability/>

Kirin Holdings Investor Relations Information

<https://www.kirinholdings.com/en/investors/>

Kirin Holdings The Environment Website

<https://www.kirinholdings.com/en/sustainability/stakeholders/engagement/>

KIRIN CSV REPORT (Integrated Report)

<https://www.kirinholdings.com/en/investors/library/integrated/reports/>

Kirin Group Environmental Report

https://www.kirinholdings.com/en/investors/sustainability/env_report/

Lion Sustainability Website

<https://www.lionco.com/force-for-good/>

Coca-Cola Beverages Northeast Sustainability Website

<https://www.cokenortheast.com/sustainability>

Kyowa Kirin CSV (Creating Shared Value) Site

<https://www.kyowakirin.com/sustainability/index.html>

New Belgium Brewing Company Human Powered Business Report

https://www.newbelgium.com/siteassets/mission/new-belgium_2025-human-powered-business-report.pdf

Reporting Period / Boundary

FY 2025 (January 2025 - December 2025)

Where necessary, this report also contains historical data showing trends for the past 3 to 5 years.

Organization Covered by this Report (FY2025)

Business Units	Companies
Alcoholic Beverages Business	Kirin Brewery, Kirin Distillery, SPRING VALLEY BREWERY, Brooklyn Brewery Japan, Eishogen, Kirin Brewery (Zhuhai), Mercian, NIPPON LIQUOR, Wine Curation, Four Roses Distillery, Kirin City, Lion, New Belgium Brewing
Non-alcoholic Beverages Business	Kirin Beverage, Shinshu Beverage, Hokkaido Kirin Beverage, Kirin Maintenance Service, each site of Kirin Beverage Services (Hokkaido, Sendai, Tokyo, Chubu, Kansai), KIRINVIVAX, Tokai Beverage Service, Coca-Cola Beverages Northeast, Interfood, VIETNAM KIRIN BEVERAGE
Pharmaceuticals Business	Kyowa Kirin, Kyowa Kirin Frontier, Kyowa Kirin plus, Kyowa Kirin (USA)
Health Science Business	Blackmores Limited, Kyowa Hakko Bio, KYOWA PHARMA CHEMICAL, Biokyowa, Shanghai Kyowa Amino Acid, Thai Kyowa Biotechnologies, Koivai Dairy Products Company, Limited, FANCL
Other Businesses (Including Corporate)	Kirin Holdings, Kirin Business Expert, KIRIN BUSINESS SYSTEM, Kirin Echo, Kirin and Communications, Kirin Engineering, KIRIN GROUP LOGISTICS, KIRIN BioMaterials

Detailed Environmental Data, Calculation Methodology, and Third-Party Assurance Report

For detailed Environmental Data, Calculation Methodology, and Third-Party Assurance Report, please refer to the ESG Data Book.

- Unless otherwise specified, environmental data is rounded to the nearest appropriate digit.
- ESG Data Book <https://www.kirinholdings.com/en/investors/files/pdf/esgdatabook2026.pdf>

Referenced Guidelines • Standards

- GRI Standards
- Recommendations of the Task Force on Climate-Related Financial Disclosures (TCFD Recommendations 2017)
- Implementing the recommendations of the Task Force on Climate-related Financial Disclosures (the 2021 TCFD Annex)
- TCFD Guidance on Metrics, Targets, and Transition Plans (2021)
- Taskforce on Nature-related Financial Disclosures (TNFD) Recommendations v1.0 (2023 Edition)
- Taskforce on Nature-related Financial Disclosures (TNFD) Additional Sector Guidance – Beverages v1.0 (2025 edition)
- SASB Standards (Alcoholic Beverages, Non-Alcoholic Beverages, Processed Foods, Biotechnology & Pharmaceuticals), Version 2023-12

Statements about outlook in this report, including forecasts, targets, and plans, are based on the current assessments by management at the time of preparation of the report. They contain inherent uncertainty that the outcomes will differ from the statements in this report due to changes in a variety of factors. Statements about risks and opportunities are also included in the report from the perspective of proactive information disclosure, even if they do not necessarily constitute risk factors that would have a material impact on investor decisions. The Kirin Group will, upon identification and acknowledgment of various risks associated with its business, strive to strengthen its risk management structure and to prevent and mitigate those risks, and will make its best efforts to respond to risks that become apparent.

About This Environmental Report

Holistic Environmental Management Information Disclosure

In this report, we explain how the Kirin Group analyzes and assesses the impacts of climate change and issues related to natural capital and containers and packaging, and promotes transition strategies such as mitigation and adaptation, in order to appropriately and continuously create value. The Kirin Group recognizes the need for a holistic approach to environmental material themes such as biological resources, water resources, containers and packaging, and climate change, and strives to provide a holistic explanation to the extent possible because there is a risk of trade-offs in resolving individual issues.

When preparing the information in this section, we have based our reporting on the TCFD recommendations (June 2017), the new TCFD guidance (October 2021), the TNFD recommendations v1.0 (September 2023), and TNFD Guidance for the Beverage Sector (January 2025). In addition, we have referred to the IFRS S1 and IFRS S2 standards published by the International Sustainability Standards Board (ISSB) on June 26, 2023, the Sustainability Disclosure Standards published by the SSBJ (Sustainability Standards Board Japan) in March 2025, and the SASB (Sustainability Accounting Board) standard for the alcoholic beverage sector (December 2023) in some parts.

The general requirements for disclosure under international frameworks such as the TCFD and TNFD are as follows.

	Contents
Application of Materiality	●The four environmental themes "Management Issues for Sustainable Growth (hereafter, GMM)" are biological resources, water resources, containers and packaging, and climate change. Please refer to (→P.8) for the materiality identification process.
Scope of disclosure	Climate change ●Kirin Brewery, Kirin Beverage, Mercian, Lion, Kyowa Kirin, Kyowa Hakko Bio, Koiwai Dairy Industry and all businesses targeted in accordance with the SBT standards have impacts and impacts on their business locations, upstream and downstream of the value chain. ●Suppliers from which information was obtained through the Supply Chain Environment Program, which began in April 2024 to capture direct environmental data
	Water resources ●Kirin Brewery, Kirin Distillery, Mercian, Kirin Beverage, Shinshu Beverage, Koiwai Dairy Industry, Kyowa Kirin, Kyowa Hakko Bio, BioKyowa, Kyowa Kirin (USA), Kyowa Pharmaceutical, Shanghai Kyowa Amino Acid, THAI KYOWA, BIOTECHNOLOGIES CO., LTD., Kirin Brewery (Zhuhai) Co., Ltd., Interfood, Four Roses Distillery, Lion, New Belgium Brewing
	Biological resources ●Kirin Brewery, Kirin Beverage, Mercian, Lion, Kyowa Kirin, Kyowa Hakko Bio, and Koiwai Dairy Industry are the main targets. In accordance with TNFD Guidance v1.0, the risks and opportunities of natural capital are analyzed and evaluated to identify material issues based on impacts, dependencies, and impacts, and the scope of disclosure and impact determined (However, since the means to obtain direct information is limited and the tools provided still have many issues, the information disclosed is limited.)
	Containers and packaging ●Kirin Brewery, Kirin Beverage, Mercian, Lion, Kyowa Kirin, Kyowa Hakko Bio, Koiwai Dairy, FANCL ●Suppliers from which information was obtained through the Supply Chain Environment Program, which began in April 2024 to capture direct environmental data
Location of related issues	Climate change・Water resources ●GHG emitting sites, upstream and downstream of the value chain ●Sites, upstream and downstream regions of the value chain, transportation routes, etc. that are affected by droughts, floods, and natural disasters due to climate change
	Biological resources ●Priority areas identified through analysis of environmental and social issues for nine priority agricultural products, which were determined through screening based on the LEAP approach as outlined in TNFD Recommendations v1.0
	Containers and packaging ●All processes until the product is delivered to the customer ●Processes such as the recovery and recycling of used containers, as well as locations where containers are improperly disposed of and areas affected by the contamination
Integration with other sustainability-related disclosures	●Since biological resources, water resources, containers and packaging, and climate change, which are important material themes of the Kirin Group, are interrelated and there is a risk of trade-offs in resolving individual issues, we adopted an integrated approach to resolve issues in an integrated manner ●Conform to the individual disclosure guidance of TCFD and TNFD, and disclose interlinkages and trade-offs in the same report
Time Horizons Considered	●Periods when risk materializes: we have generally defined the short term as from the present to 2027, the medium term as from 2028 to 2030 (the SDGs target period), and the long term as 2031 to 2050 (the target year for the Kirin Group's Environmental Vision 2050) ●Since the papers used as sources of information do not necessarily correspond to this time frame, the time frame used in the papers will be used.
Engagement	●See the provisions for indigenous peoples and local community stakeholders in the FSC and Rainforest Alliance certifications adopted by the Kirin Group. ●In areas where the Landscape Approach can be adopted, instead of simply making decisions based on analysis and evaluation of disclosed data, enter the area and engage with local people.

Message from the President & COO

In 2025, geopolitical fragmentation deepened to unprecedented levels, while extreme weather events driven by climate change occurred with increasing frequency across the globe. These events often exceeded the capacity of ecosystems and social infrastructure, triggering catastrophic disasters and surging resource prices.

Through our diverse businesses that utilize the bounty of nature as raw materials and harness the power and wisdom of nature, we have continued to evolve our CSV management, which aims to achieve both social and economic value. Rather than addressing environmental challenges—climate change, biological resources, water resources, and containers and packaging—as separate issues, we take an integrated approach, building our actions from the ground up. This foundation is rooted in the philosophy of “Reverence for Life,” a Brewing Principle inherited from our founding business, Kirin Brewery, and we practice sustainable value creation within an organizational culture that emphasizes science and technology.

Following COP30 for the UNFCCC held in 2025, the international community has transitioned in earnest into the “implementation phase” of climate action. We align ourselves with this momentum and will share more concretely and more broadly with society our goal of “Enrich the Earth with Positive Impact,” as set forth in our Environmental Vision 2050.

The Kirin Group has newly formulated “Innovate2035!” as its long-term management vision looking beyond the Kirin Group Vision 2027 (KV2027). Under this vision, we aim to “vitalize the world as a leading CSV company by continuously creating innovation through the power of people and technology.”

Guided by the “KIRIN WAY,” the Group’s shared values and principles established to realize “Innovate2035!,” we will continue to generate innovations that contribute to solving environmental challenges through the combined strength of people and technology.

At the same time, we will steadily promote initiatives toward achieving the two non-financial targets set out in “Innovate2035!”. First, with regard to the reduction of Scope 1 and Scope 2 GHG emissions, we will build an energy portfolio resilient to uncertainties in price, supply, and technology by combining three approaches: “enhancing energy efficiency,” “expanding the use of

renewable energy,” and “energy conversion.” Second, to ensure sustainable water resource utilization, we will reduce water consumption intensity at Lion’s production sites in Australia, where water stress is high, through the introduction of advanced water treatment technologies.

On the regulatory front, the SSBJ standards have been finalized in Japan. In advance of regulatory requirements, the Kirin Group became the first Japanese company to disclose non-financial information simultaneously in both Japanese and English in our Securities Report based on SSBJ standards. Companies are expected to consistently disclose risks, opportunities, strategies, metrics and targets, and transition plans to meet the expectations of investors and society. Going forward, we will further strengthen our disclosure response with both data quality and execution speed, providing highly transparent information.

At the core of my management approach is “the three-actuals principle”—a rigorous commitment to prioritizing “Gemba” (the actual place), “Genbutsu” (the actual things), and “Genjitsu” (the actual situation). By listening carefully to voices from the workplace, the realities on the ground, and the issues actually occurring, and directly linking insights gained to management decisions and strategy formulation, I am convinced that this approach enables effective CSV management that goes beyond mere principles and targets. Together with suppliers, industry associations, distribution and retail partners, customers, academic research institutions, and government authorities, we will reinforce collaboration to transform market mechanisms themselves. We will continue to remain faithful to the fundamentals—going to “Gemba,” seeing “Genbutsu,” and knowing “Genjitsu”—and forge a better future together with all our stakeholders.

Takeshi Minakata

Representative Director of the Board, President & COO
Group Business Execution Control
Kirin Holdings Company, Limited



Message from the Officer in Charge of CSV Strategy

In recent years, environmental challenges such as climate change, biodiversity loss, and stagnation in resource circulation have been exerting significant impacts on our society and economic activities, intertwining in complex and interconnected ways. Rather than addressing these challenges individually, deriving “integrated solutions” that simultaneously tackle climate, biodiversity, and resource circulation from a holistic perspective has now become a new prerequisite for corporate value creation. We at the Kirin Group are acutely aware that we have contributed to environmental change through our business activities, and we renew our commitment to fulfilling our social responsibility. Proactive and swift action is essential to protect and nurture the foundation for shared value creation for generations to come.

In 2026, a series of international forums will take place, including the Nature Positive Summit in July, the Conference of the Parties to the Convention on Biological Diversity (COP17) in October, and the UN Water Conference in December. Multifaceted and diverse challenges will require attention—not only droughts and water pollution but also WASH (safe water and sanitation), floods, and governance—marking a year when efforts toward biodiversity will further accelerate. Additionally, regulations promoting the transition to a Circular Economy are being strengthened, including the application of the EU’s Packaging and Packaging Waste Regulation (PPWR) and the enforcement of Japan’s revised Resource Circulation Act, which mandates the use of recycled materials.

In response to these developments, we report on our Group’s initiatives and progress as follows. First, regarding climate change, we are steadily advancing Scope 1 and 2 GHG emission reductions toward achieving RE100 by 2040 and realizing Net-Zero by 2050, through enhanced renewable energy deployment and energy-saving investments at domestic and overseas sites. For containers and packaging, we are promoting the adoption of recycled and low-carbon materials, along with design optimization, to curb material-derived emissions and advance resource circulation. In regard to water and biological resources, we have continued support for farmers to obtain sustainable farming certifications and water source conservation in raw material production areas, as well as collaboration within watersheds. In doing so, we have focused on

assessing our dependencies on and impacts on natural capital and creating positive impacts. Furthermore, we have disclosed environmental KPIs based on CSV Commitments and are revising their targets for 2027.

Collaboration with our external stakeholders is also accelerating. First, decarbonization collaboration with suppliers: we are advancing supply chain-wide emission quantification and co-creating reduction roadmaps, expanding the implementation of low-carbon solutions across containers and packaging, materials, and logistics domains. Second, cross-industry ecosystem formation: we are promoting market infrastructure development for recycled materials and low-carbon resources, as well as standardization of emission data, in partnership with industry associations and financial institutions. Third, co-creation with consumers and communities: initiatives such as donating a portion of product sales to cherry blossom conservation activities and developing products that simultaneously reduce food loss and support farmers have garnered widespread support. Fourth, in collaboration with academia and regulatory bodies, we are accelerating the interface between science and policy in alignment with ISSB/SSBJ and TNFD, while contributing to the development of nature-related transition plans.

Going forward, we will proceed with establishing systems to ensure third-party assurance of non-financial data, including GHG emissions, and to improve traceability, steadily preparing for SSBJ-compliant disclosures and GX-ETS Phase 2. By combining on-the-ground capabilities within our organization with collaborative strength from external partners, we will continue to challenge ourselves to expand positive impacts for a sustainable society and enhance corporate value. Through this report, we will further deepen dialogue and co-creation with our stakeholders and continue to advance our initiatives. We sincerely appreciate your continued understanding and support.

Hiroaki Takaoka

Senior Executive Officer, CSV Strategy



Corporate Data

Corporate Philosophy

KIRIN brings joy to society by crafting food and healthcare products inspired by the blessings of nature and the insights of our customers.

2035 Vision

Vitalize the world through innovation by our people and technology, as a global leader in CSV

“KIRIN WAY”

Our Fundamental Values



Pioneer with Innovation

With creative thinking and a spirit of curiosity, let's keep proposing new ideas that move us forward.



Consumer / Patient at Heart

Deeply connect with people's lives and deliver value beyond what society anticipates.



Quality in Mind

Approach all work with integrity and consistently deliver the quality people expect.

Our Principles



Be Aspirational

Envision a future that excites and inspires us. Our personal passion and purpose are the driving forces that unlock tomorrow.



Go to “Gemba”

Observe at the source to uncover truth and understand real needs. The starting point of our work should always begin where these needs exist.



Act First, Learn Fast

Step forward boldly, even if the path is uncertain. There's always something to learn from every outcome.



Leap Beyond

Break out and explore beyond the familiar! New possibilities await on the other side of the leap.



Unite as One Team

Turn our personal uniqueness into collective strength. By working together, we make the impossible possible.



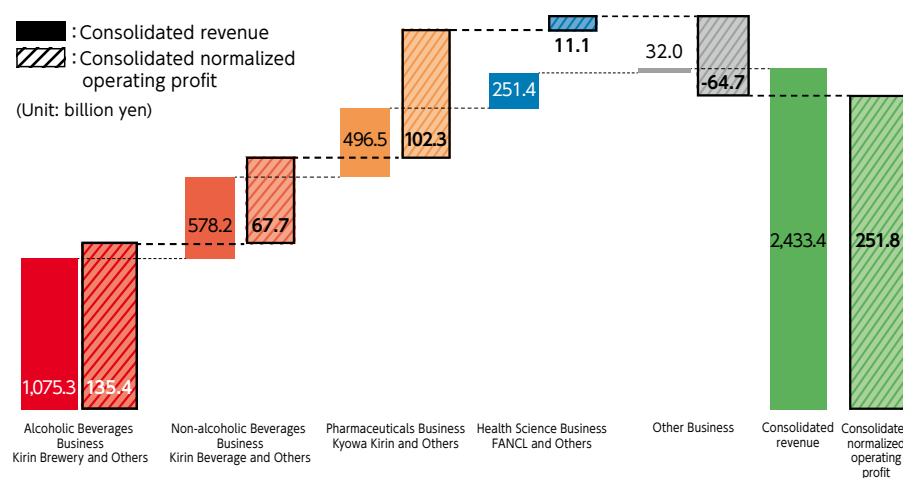
Commit to Winning

Bring passion and commit to delivering results! Individual ownership fuels the value we deliver to the world.

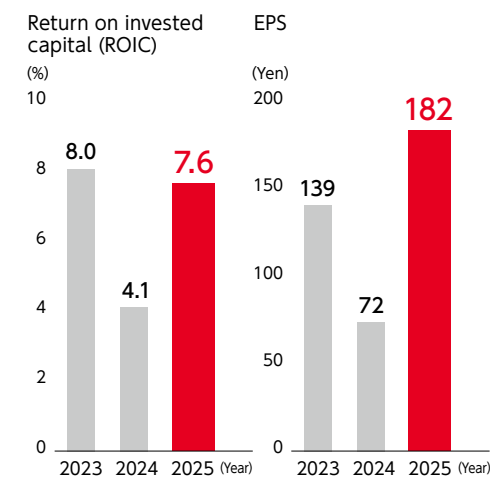
Company Overview

Company Name	Kirin Holdings Company, Limited
Establishment	February 23, 1907 * Kirin Brewery Co., Ltd. changes its name to Kirin Holdings Co., Ltd. and becomes a holding company of the Kirin Group on July 1, 2007
Head Office	NAKANO CENTRAL PARK SOUTH 10-2, Nakano 4-chome, Nakano-ku, Tokyo 164-0001, Japan
Paid-in Capital	102,046 million yen
Number of employees	31,144 * Kirin Holdings Number of employees: As of December 31, 2025

Consolidated revenue/Consolidated normalized operating profit



Financial Key Performance Indicators



Identification of Materiality

The Kirin Group evaluates key themes for its sustainable existence and development alongside society from two perspectives: impact on business and impact on stakeholders, organizing them as "Management Issues for Sustainable Growth (Group Materiality Matrix: GMM)" (figure below right). As the GMM evolves over time and serves as the starting point for the Group's planning process, we have determined that annual updates are necessary.

In 2025, following the "Procedure to select Materiality" (figure below), we re-examined the materiality for the Kirin Group's sustainable existence and development alongside society with a 10-year outlook, taking into account changes in both internal and external environments.

This year, in alignment with our long-term management vision "Innovate2035!", we have added "Promoting responsible marketing" as a new materiality theme. This addition reflects the growing international demand for fairness, transparency, and social

consideration in corporate marketing activities, driven by advancing regulations in the EU and requests from ESG rating agencies. Materiality under the general requirements of the Task Force on Climate-related Financial Disclosures (TCFD) and the Taskforce on Nature-related Financial Disclosures (TNFD) is addressed in the "Holistic Environmental Management Information Disclosure" section (→P.4) of this report.

In evaluating materiality for sustainability issues, we identify issues that are important to both the Kirin Group and its stakeholders, while examining areas where the Kirin Group can create positive impacts on society. As a result, for environmental matters, we have reconfirmed that the four themes positioned as critical issues in the Kirin Group's Environmental Vision 2050—"Sustainable use of biological resources," "Sustainable use of water resources," "Sustainable recycling of containers and packaging," and "Overcoming

climate change"—are highly material for Group management.

The Taskforce on Nature-related Financial Disclosures (TNFD) Recommendations v1.0, published in September 2023, recommends an integrated approach to climate-related and nature-related issues. This integrated approach aligns with the fundamental philosophy of the 2013 "Kirin Group Long-Term Environmental Vision," which recognized the four environmental themes—"biological resources," "water resources," "containers and packaging," and "climate change"—not as independent issues but as interrelated challenges. The Kirin Group has continuously pursued this philosophy since pivoting to environmental activities with a global perspective in the early 1990s. Moving forward, as a leading company in integrated approaches, we will continue contributing to the global adoption of this philosophy and the resolution of environmental challenges.

Procedure to select Materiality

Identifying management issues

We identified issues based on reporting guidelines such as ISO26000, GRI, and SASB, evaluation items from ESG rating providers such as FTSE, MSCI, and Sustainalytics, and SDG targets.

Conducting internal evaluations

Based on objective information on social issues, such as NGO/NPO reports and media information, we exchanged opinions at the Group Executive Committee regarding the impact of social issues on our business activities and the impact of our business activities on society.

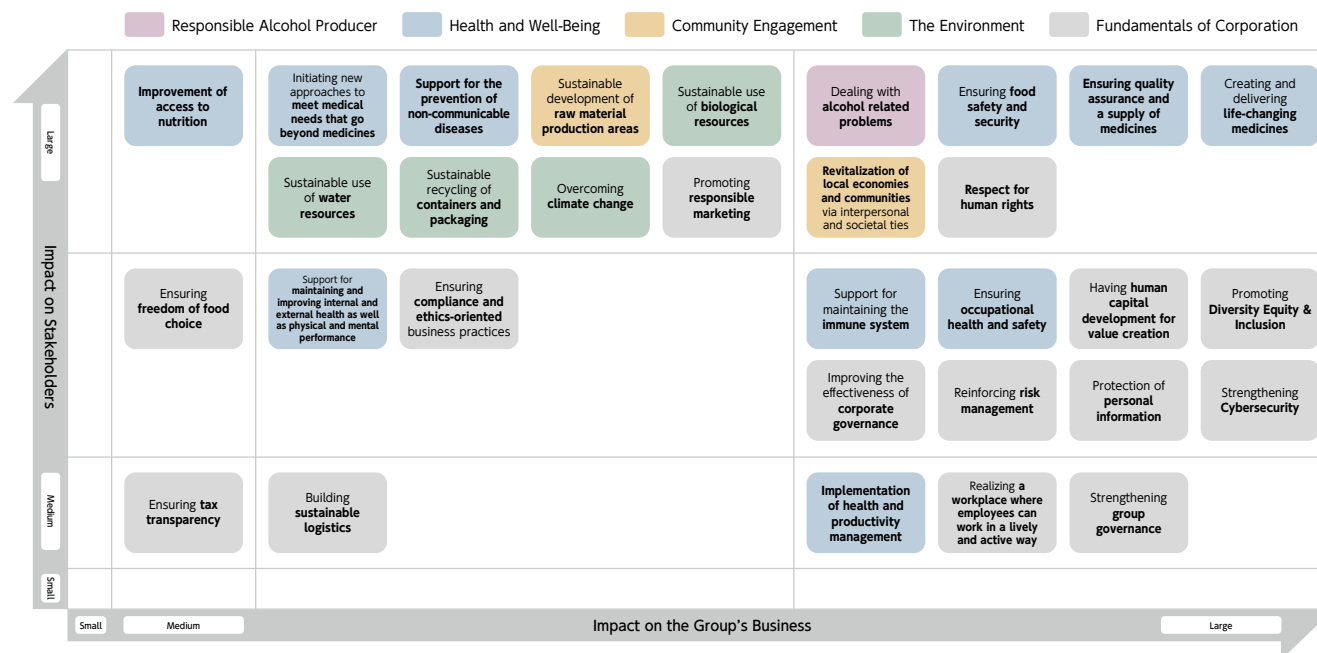
Conducting stakeholder engagement

Based on the results of our internal evaluation, we requested opinions from investors, NGOs, NPOs, and employees (labor unions).

Determining materiality

The results, which reflected the opinions of stakeholders, were then discussed at the Group CSV Committee and then resolved at a Board of Directors meeting.

Management Issues for Sustainable Growth (Group Materiality Matrix) (Updated in 2026)



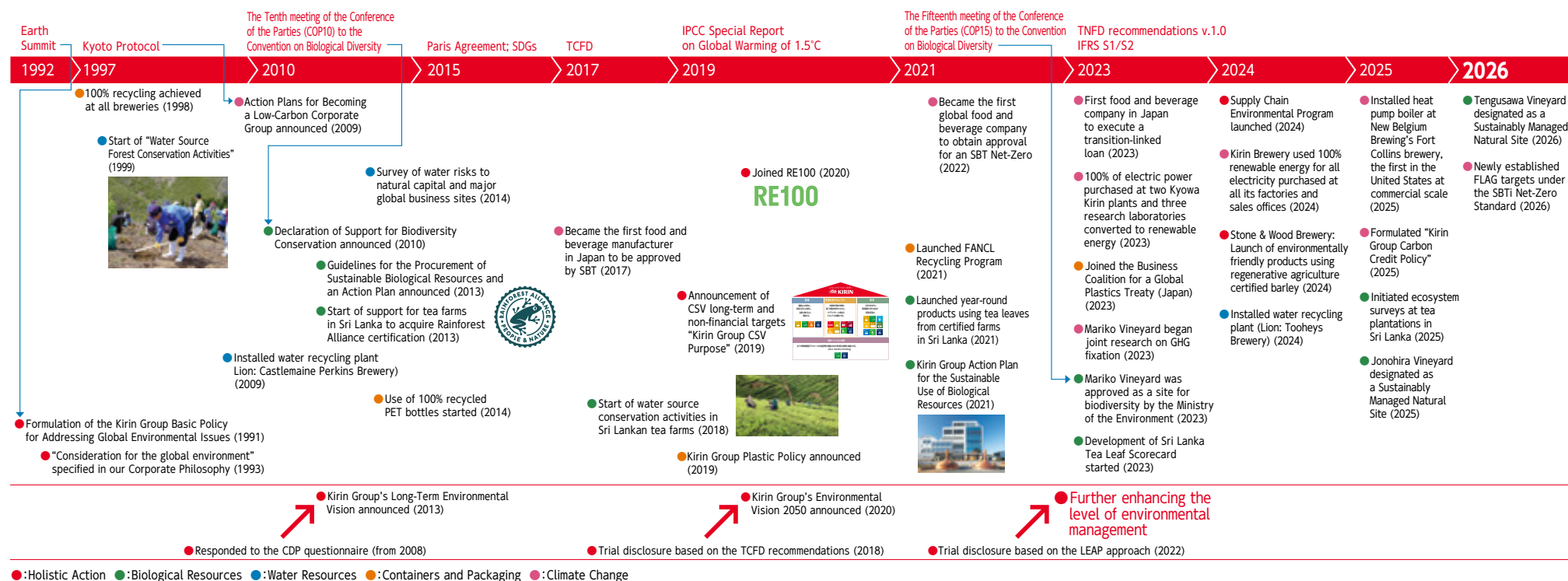
Global Trends and Kirin Group's Actions

The Kirin Group has stayed ahead of global movements and has raised the level of its environmental management by proactively testing new initiatives. In anticipation of the 1992 Earth Summit in Rio de Janeiro, the Kirin Group established its Basic Policy for Addressing Global Environmental Issues in 1991. The following year, in 1993, we revised our management philosophy to state that "we aim to be a corporate group that considers the global environment," and shifted our environmental management focus from pollution control to activities that take the entire planet into consideration. Since then, we have been leading the Japanese industry, including making a corporate presentation at the Third Conference of the Parties to the United Nations Framework Convention on Climate Change held in Kyoto in 1997 and starting our Water Source Forest Conservation Activities in 1999.

The Kirin Group has adopted an advanced disclosure framework to further raise the level of environmental management.

Around 2008, we started responding to questionnaires from CDP (the Carbon Disclosure Project). At the time in Japan, ESG was not yet considered an important issue, but responding to CDP's questionnaire provided an effective opportunity to deepen understanding of global environmental issues. Appropriate responses to CDP led to the Kirin Group having a multi-layered understanding of environmental issues and to the Kirin Group's Environmental Vision 2050, which was announced in 2013. In order to respond to the TCFD guidance published in 2017, the Kirin Group began conducting scenario analysis early on. As a result, the need to approach the environmental themes of "biological resources," "water resources," "containers and packaging," and "climate change" as interrelated issues in an integrated manner rather than as separate issues has spread to everyone from management to employees. This common understanding became the foundation for the improvement of environmental management.

From 2025 onward, we further strengthened our response to issues in climate change and natural capital. We formulated the "Kirin Group Carbon Credit Policy" and developed new FLAG targets aligned with the SBTi Net-Zero Standard, which was set in 2026. In order to deepen our understanding of the natural environment in raw material sourcing areas, we initiated ecosystem surveys at tea plantations in Sri Lanka. In our wine business, we made progress in initiatives to achieve coexistence between biodiversity conservation and business operations, including the designation of "Jonohira Vineyard" and "Tengusawa Vineyard" as a Sustainably Managed Natural Site by the Ministry of the Environment. Going forward, we will continue to promote advanced initiatives toward realizing a sustainable society, taking into account global environmental management regulations and economic trends.

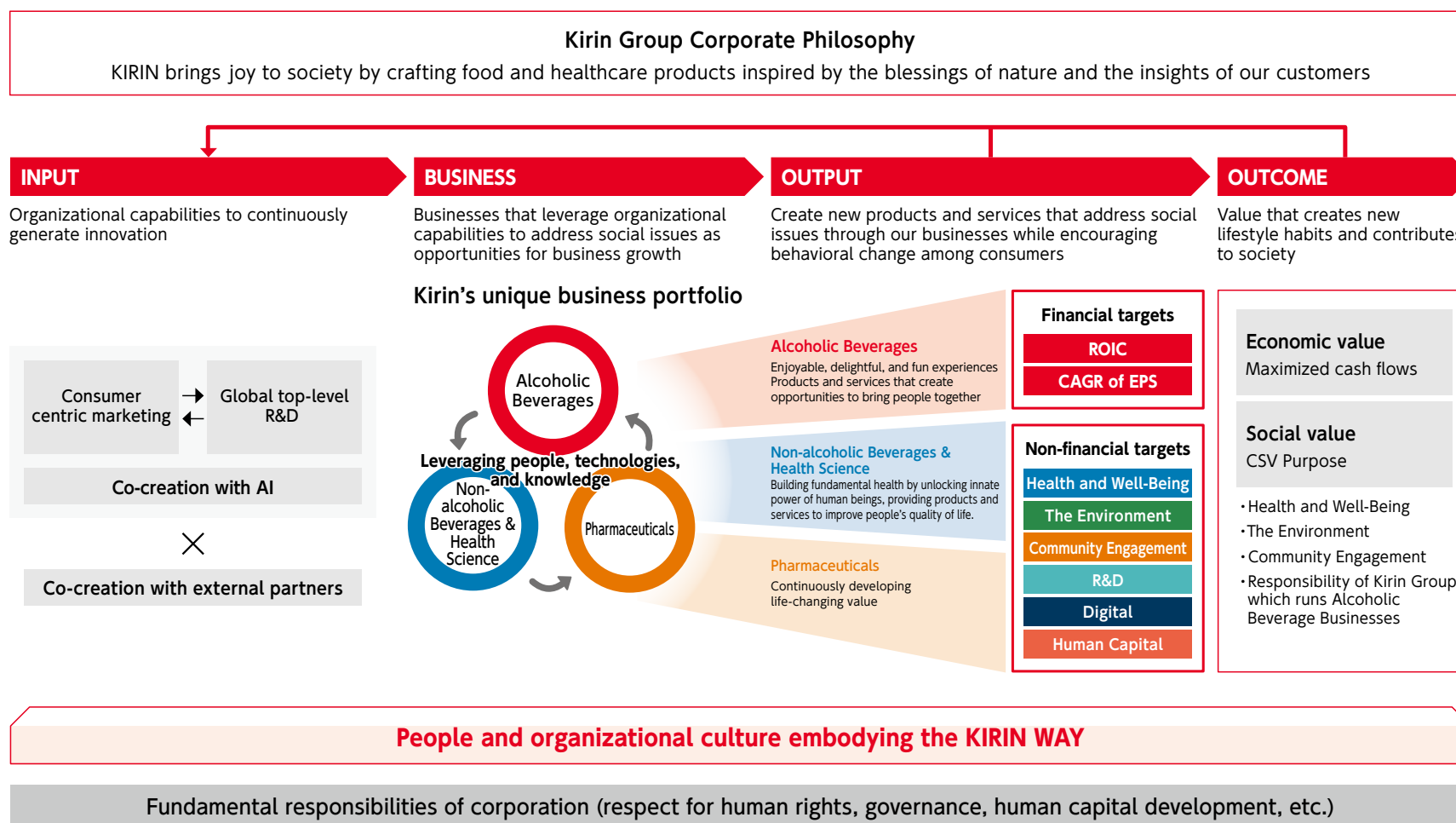


Kirin Group's Value Creation Model

The Kirin Group places CSV (Creating Shared Value) at the core of its management. We will work to solve social issues through our business activities and achieve sustainable growth together with society by simultaneously creating social and economic value over the short, medium and long term. The "value creation model" illustrates a sustainable mechanism for amplifying the two types of

value creation by reinvesting the economic value gained in our organization's capabilities. Business development through the three domains of food, pharmaceutical, and health science requires the use of natural capital and the resolution of environmental challenges such as container packaging and climate change. Through the resolution of these issues and the sustainable use of

natural capital, our business creates value that gives back to society. In the value creation model, the non-financial goal of the "environment" is shown as an important factor. For an explanation of how environmental issues relate to value creation at the Kirin Group, please refer to the "Expanding the Scope of Positive Impact" on page 12



Kirin Group's Environmental Vision 2050

Enrich the Earth with Positive Impact

Society has reached a major turning point against the backdrop of growing global environmental problems, including the climate crisis, the ongoing loss of biodiversity, and plastic pollution of the oceans. Industries such as the Kirin Group, which rely on natural bounty such as water and agricultural products, are susceptible to environmental problems and there is need to address such issues urgently.

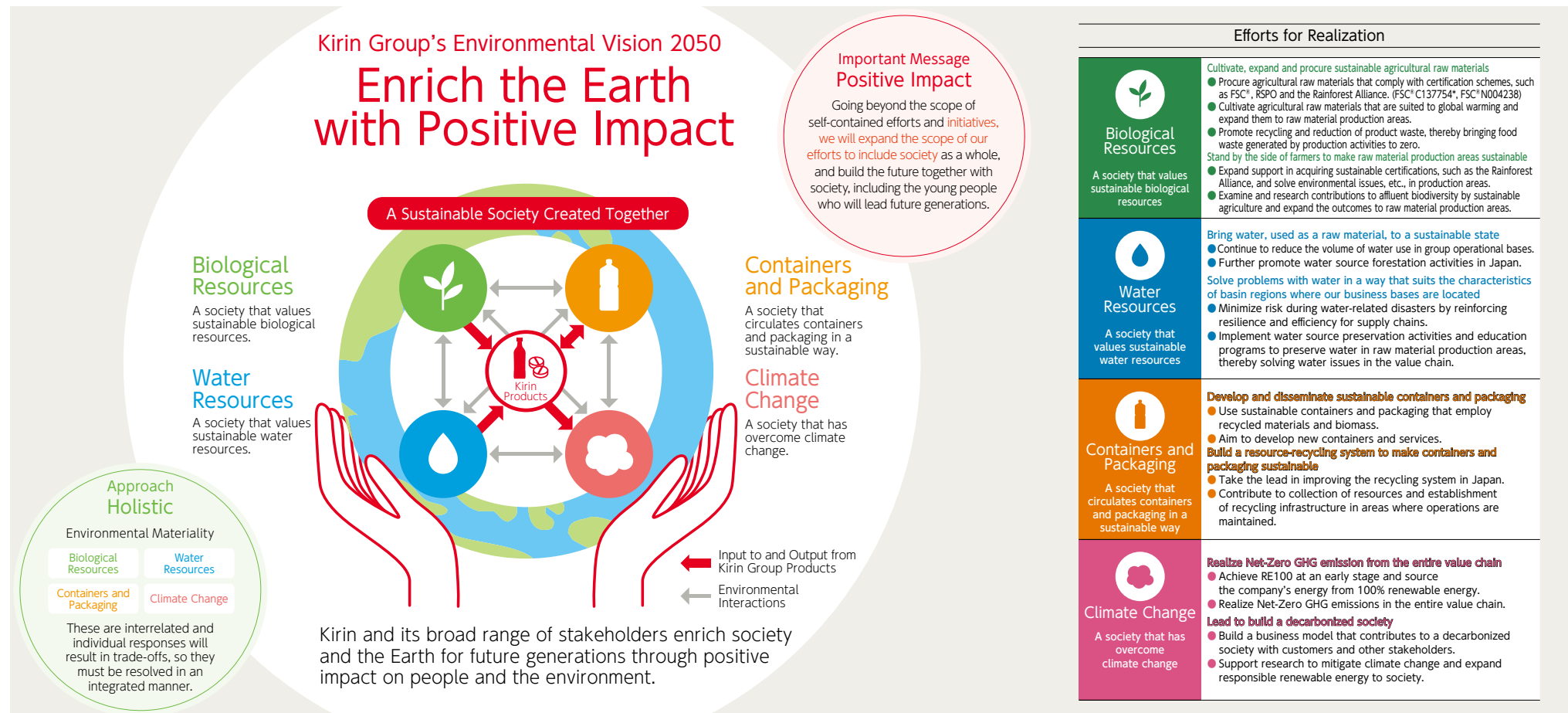
Through scenario analysis based on the TCFD, the Kirin Group has grasped the seriousness of the impact that climate change has

on agricultural products and water resources. We have learned that in order to pass on a sustainable Earth to future generations, it is not enough to simply minimize negative impacts and achieve neutrality. Corporate environmental policies are expected to evolve from being self-contained within a company to having a positive impact on society as a whole.

In order to respond to such societal demands, the Kirin Group has developed the idea of an "integrated" approach that holistically

addresses complex and interrelated environmental issues (biological resources, water resources, containers and packaging, and climate change) into our revised "Kirin Group's Environmental Vision 2050" and "Positive Impact" approach, which were discussed and resolved by the Board in 2020.

Under this new Vision, together with the young people who will lead the future, we will create a prosperous world for the next generation.



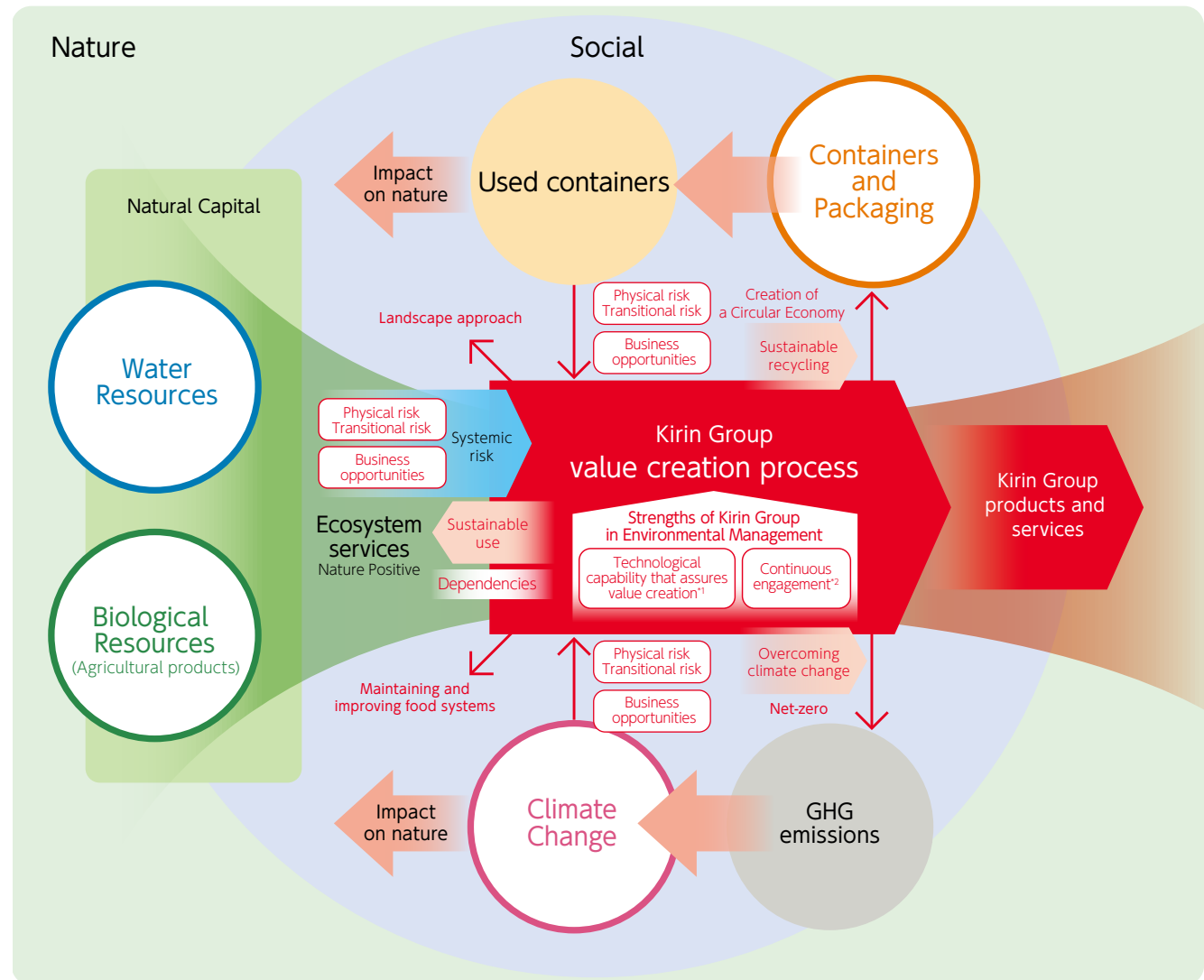
Kirin Group's Environmental Vision 2050

Expanding the Scope of Positive Impact

In 2024, we made some revisions to the "Environmental Value Correlation Chart," which shows the Kirin Group's integrated approach, to clarify that we will expand the scope of our positive impacts, which is a key message of our Environmental Vision. What we added was the "Landscape Approach" and the concept of "food systems."

In Sri Lanka, we decided that the procurement of certified tea leaves alone would not ensure the sustainability of our production sites, so we chose to support tea farms in obtaining sustainable farming certification. The Kunming-Montreal Global Biodiversity Framework (GBF) refers to the "Landscape Approach" as a method that comprehensively addresses the diverse human activities and natural environments of raw material production sites and leads to sustainable solutions to problems. The Sri Lankan case is also a solution to the problem through the concept of a "food system," which considers food not as an individual issue such as agriculture, but as a whole system involving food production, processing, distribution, consumption, and waste.

A one-dimensional view that looks only upstream and downstream, with the company at the center, could fail to realize that there are negative trade-offs for others outside the value chain, even if there seems to be a positive impact on the company. Although the Landscape Approach and the approach treating food as a systems take time and effort, they have a positive impact on raw material producing areas and contribute to stable procurement of raw materials and brand enhancement. So, we have decided to clearly recognize and work on them as part of the Kirin Group's integrated approach.



^{*1} Engineering and R&D capabilities (Kirin Central Research Institute, Institute of Health Sciences, Institute for Packaging Innovation)

^{*2} Engagements: Contributions to rulemaking and policy recommendations (TCFD, SBTN, TNFD pilot test participation), various organizations (NGO: Rainforest Alliance), FSC Japan, WWF Japan, Earthwatch Japan, etc. Consortiums: Consortium for Sustainable Paper Use, Rainforest Alliance Consortium, Australian Climate Leaders Coalition, etc. Communities: Sri Lanka tea farms, areas around Mercian's own managed fields, etc. Next generation: Kirin School Challenge, Japan Environmental Youth Network, etc.

Commitment and Performance

The four themes of the Environmental Vision is reflected in the "CSV Commitment", a medium- to long-term action plan that each business is working on to achieve the "CSV Purpose." The status of their implementation is monitored on a quarterly basis and reported to the Kirin Holdings Board of Directors. Current progress toward the targets, including qualitative ones, is as follows.

Group Materiality Matrix	Particularly contribute to SDG targets	CSV Commitment					
Medium items		approach	Our Achievements	Company/Department	Target Value	Target Year	Latest Achievements (2025)
 Sustainable use of biological resources	4,15	We achieve Nature Positive management through wine production.	Achievement of 30by30 environmental site certification and activities toward this goal	Mercian	Obtain certification for 3 vineyards (including re-certification for Manko) and carry out the required actions	2027	Obtained new 30by30 Nature Symbiosis Site certification for 1 vineyard
	15	Minimise nature impacts through our sourcing and operations, understand our dependencies and ensure a resilient supply chain.	Increasing disclosures in line with TNFD framework reflecting our commitment to a Nature Positive future.	Blackmores	Compliance with all AFRS-2 climate disclosures plus 20 Nature disclosures.	2030	70+ AASB Climate disclosures in draft 2025 AASB Sustainability Report. 10 TNFD nature disclosures in draft AASB Sustainability Report
	2,12	Reduce waste by improving the accuracy of supply and demand forecasts and utilising food banks.	Food waste reduction rate	Kirin Beverage	60% (compared to 2019)	2027	68%
	12,13	Protect our social licence to operate, use of natural resources and manage scope 3 emissions through effective recovery of waste and improving our packaging footprint.	Reduce waste to landfill	Blackmores	80% diversion of on site waste form landfill.	2030	62%
 Sustainable use of water resources	6	By reducing the amount of water used in our business activities, we will ensure the sustainability of water resources by conducting water resource preservation activities and other measures.	Improvement of water stewardship	Lion	Water use intensity in areas of high-water stress (XXXX, Tooheys, Boags) Less than 2.4 l/l	2027	2.6l/l
			Improvement of water stewardship	Lion	Water use intensity at high water stress sites (Fort Collins) Less than 3.4 l/l	2027	3.7l/l
			Reduction rate of water consumption	Kyowa Hakko Bio	32% (compared to 2015)	2030	68.5%
			Reduction rate of water consumption	Kyowa Kirin	40% (compared to 2019)	2030	54.2%

Commitment and Performance

Group Materiality Matrix		CSV Commitment					
Medium items	Particularly contribute to SDG targets	approach	Our Achievements	Company/Department	Target Value	Target Year	Latest Achievements (2025)
 Sustainable recycling of containers and packaging resources	12,14	In addition to the use of recycled materials and biomass, and the development of new containers and services, we will help improve the sustainability of the PET resource cycle by building recycling systems and developing resource recovery and recycling infrastructure in the regions where we operate.	Percentage of plastic bottle recycled resin used	Kirin Beverage	53%	2027	43.5%
	12	We will contribute to securing a stable supply of resources by reducing the amount of packaging and containers, fulfilling our social responsibility as a corporate group that uses resources, and maintaining and sustaining our corporate activities.	Reduction in plastic containers and packaging	Mercian	Plastic resin reduction of 20 tons (compared to 2023)	2027	Reduction of 0.067 tons
	13	Reduction in the amount of CO ₂ emitted during the production of the aluminium used.	Evaluation of actual equipment for switching to non-metallic packaging materials for iMUSE supplements	Kirin Holdings Health Science business Dept.	Adoption of non-metallic packaging materials	2027	Evaluated filling compatibility and storage stability of new packaging materials
 Overcoming climate change	7,13	In addition to achieving RE100 at an early stage and making 100% of the energy used by our company come from renewable energy sources, we will expand the use of renewable energy in society and work with stakeholders to build a business model that contributes to a decarbonized society.	GHG (Green House Gas) emission reduction rate: Scope1+2 (compared to 2019)	Kirin Brewery	55%	2030	39%
				Kirin Beverage	55%	2030	18%
				Mercian	55%	2030	24%
				Lion	55%	2030	47%
				Kyowa Hakko Bio	55%	2030	49%
				Kyowa Kirin	55%	2030	67%
				Blackmores	50%	2030	44%
				Coca-Cola Beverages Northeast	25%	2030	-10%
			Ratio of renewable energy to electricity used by the entire Group	Kirin Holdings CSV Strategy Dept.	100%	2040	52%
			GHG (Green House Gas) emission reduction rate: Scope3 (compared to 2019)	Kirin Holdings CSV Strategy Dept.	30%	2030	22%

Governance

Supervisory Structure

In the Kirin Group, the Board of Directors deliberates and resolves on the basic policies of the CSV, including environment-related issues, medium- and long-term strategies, annual plans, and important non-financial targets and KPIs, including environmental targets. The Board also supervise the execution of the Group's environmental operations and important risks, including climate change, natural capital, and the Circular Economy, on a quarterly basis through monitoring the progress of non-financial targets.

Executive Structure

In the Kirin Group, the Group Executive Committee deliberates and makes resolutions concerning the setting and revision of important targets, as well as investment plans, related to environmental issues as a whole. The Group Executive Committee receives reports from operating companies and divisions on the status of target achievements and risks, and supervises these operating companies and divisions. The senior executive officer in charge of CSV strategy oversees environmental issues.

The Kirin Group has established the Group CSV Committee (meets three times a year). The committee is an advisory body to the CEO and COO that discusses environmental and other CSV issues across the Kirin Group. The committee is co-chaired by the CEO and COO of Kirin Holdings, with its members being the CEOs

of major Kirin Group companies and senior executive officers of Kirin Holdings. With the participation of outside experts from a multi-stakeholder perspective, as necessary, this committee engages in in-depth discussions on matters such as current and future sustainability issues, the degree of dependence, and the degree of impact, as well as risks and opportunities associated with these issues. The committee then reports its decisions to the Board of Directors. Additionally, at the chair's discretion, matters are referred to other appropriate committees as needed.

The Kirin Group has established the Group Environmental Meeting (meets twice a year) under the Group CSV Committee. This meeting has the officer in charge of CSV strategy as the chair and the relevant senior executive officers and department heads as members. Key agenda of the meeting include "Sharing awareness of sustainability-related risks and opportunities and discussing strategies" and "Monitoring of progress related to roadmaps towards achieving the Kirin Group's Environmental Vision 2050 and exchanging opinions on related policies, strategies, and plans."

Through these discussions, we conduct deliberations that inform management decisions by considering the impact of key themes—including their magnitude and probability—as well as trade-offs inherent in strategic options for addressing risks and opportunities (zero risk, mitigation, or acceptance). For instance, the committee considers risks and opportunities related to major

raw material procurement and discusses the transition to regenerative agriculture and its financial impact. The discussions at the meeting are then presented to the Group CSV Committee and the Board of Directors as necessary. This structure strengthens efforts to address sustainability issues as required by the Japan's Corporate Governance Code, revised in 2021. Environmental management, including addressing climate change, is implemented as part of the CSV management system. The Kirin Group has established the Group Risk and Compliance Committee (meets twice a year and as necessary). This committee consists of executive officers from Kirin Holdings, and makes resolutions concerning group-wide risk management policies and the identification of important risks and reports the results to the Board of Directors as necessary. This committee also controls environmental risk management.

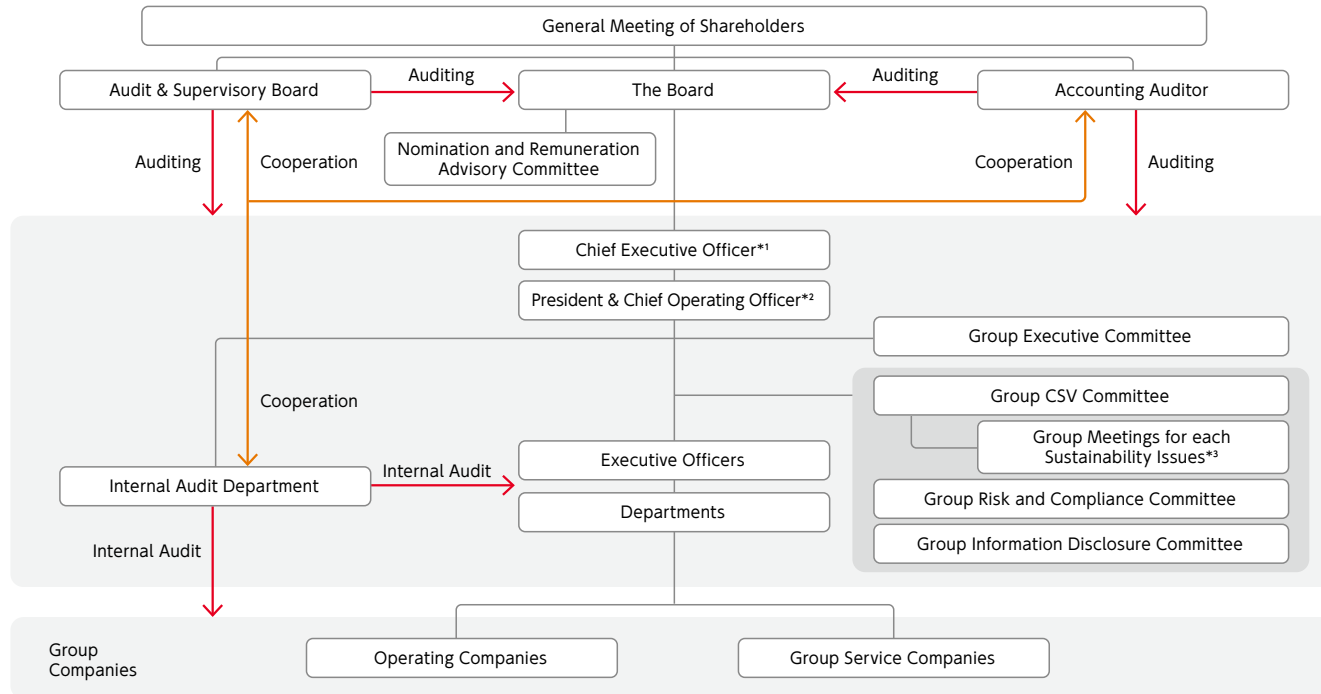
Starting from the 2022 Medium-Term Business Plan, performance-linked remuneration for senior executive officers reflects the target achievement rate for non-financial indicators, as an incentive to promote the medium- to long-term business plan. Regarding KPIs linked to remuneration, we have set a target of reducing GHG emissions by 32% (vs. 2019) in order to achieve the "SBT 1.5°C" for climate change, water usage (2.5 l/l) at production sites with high water stress as a target related to both climate change and natural capital as target values for 2026.

	Roles and authorities	Members	Frequency	Achievements
The Board	- Supervision of execution of environmental operations within the Group - Resolutions related to Group's long-term strategy and annual plans - Resolutions related to important non-financial targets and KPIs, including those concerning the environment - Deliberation and resolution on significant strategies and investments that have a material impact on Group management, including environmental matters - Oversee environmental initiatives of operating companies and relevant departments	- Chair: non-executive director of the Board - Non-executive 7, Executive 5	Once a month (including written resolutions)	- Quarterly monitoring of important risks, including environmental, and the execution of business operations - Resolutions concerning plans for fiscal 2026, including environmental targets, KPIs, and important risks
Group Executive Committee	- Deliberation of environmental policies, Group's long term strategies, and annual policies - Deliberation related to general non-financial targets and KPIs, including those concerning the environment - Deliberation and resolution on significant strategies and investments that have a material impact on Group management, including environmental matters - Supervision of the environmental operations of operating companies and divisions	- Convened and chaired by the the President, Kirin Holdings Company, Limited - Executive officers of Kirin Holdings	Twice a month, plus as needed	- Quarterly monitoring of the execution of environmental operations by operating companies - Deliberation of plans for fiscal 2026, including environmental targets and KPIs, and important risks
Group CSV Committee	- Deliberation on medium- to long-term, Group-wide CSV policies, strategies, plans, targets, and KPIs, including environmental matters - Deliberation on the implementation of specific initiatives in line with medium- to long-term CSV-related policies, including environmental matters - Deliberation on and progress review of sustainability-related risks and opportunities, and roadmaps for individual environmental issues	- Chair: CEO and COO of Kirin Holdings - Executive officers of Kirin Holdings - CEOs of the Group's major operating companies in Japan and overseas	Three times a year	- Discussion of non-financial disclosure policies, strategies, and plans, including those related to the environment - Reviews of ESG assessments and deliberation of enhancements
Group Environmental Meeting (Working Group on the Environment under the Group CSV Committee)	- Sharing awareness of sustainability-related risks and opportunities, and discussing strategies - Monitoring the progress of roadmaps towards achieving the Kirin Group Environmental Vision 2050, and exchanging opinions on policies, strategies, and plans	- Chair: Executive officer in charge of CSV of Kirin Holdings - Executive officer in charge of SCM strategy, General Manager of CSV Strategy Department, General Manager of Corporate Strategy Department, General Manager of Finance Department, General Manager of Procurement Department, General Manager of Corporate Communication Department, Head of Corporate Disclosure Section, General Manager of Research & Development Division, and General Manager of Technology Development Department**1	Twice a year	Formulation of draft plans for fiscal 2026 concerning the four environmental issues
Group Risk and Compliance Committee	- Deliberation of annual policies concerning group risk management, including risks related to the environment, and important risks for the Kirin Group - Monitoring risk and compliance projects and responding to sudden incidents	- Executive officer in charge of risk management of Kirin Holdings - Executive officers of Kirin Holdings	Twice a year + as needed	Deliberation of basic policies for plans for fiscal 2026 and important risks for the Kirin Group

*1 General Manager of Technical department of Kirin Brewery. Other affiliations not specified belong to Kirin Holdings

Governance

Status of Governance for Environmental Issues



*1 Chief Executive Officer (CEO): The Executive Officer responsible for overseeing the overall management of the Group

*2 Chief Operating Officer (COO): The Executive Officer responsible for overseeing the business operations of the Group

*3 Group Environmental Meeting, Group Business and Human Rights Meeting, Group Health and Safety Meeting, etc.

The CSV Commitment is the mid- to long-term action plan by which each operation addresses toward realizing the "CSV Purpose," which translates our Corporate Philosophy into its social significance, based on the "Group Materiality Matrix." Environmental goals, including those related to climate change, are incorporated into this CSV Commitment as one of our non-financial KPIs. These goals are set as performance indicators for each group company and reflected in their management plans. Progress on these goals serves as a performance evaluation indicator for the CEOs of the Group companies. From an internal management perspective, we re-view and update the targets annually, monitor progress quarterly, and report to the Kirin Holdings Board of Directors.

Skills and Competencies

We appoint directors of the Board, Audit and Supervisory Board members, and executive officers who possess the experience, advanced insight, and a high level of expertise to provide effective oversight of decision-making across the Group and execution of management, in order to drive the realization of CSV, which is at the core of the company's management.

See below for a skill matrix of senior management.

<https://www.kirinholdings.com/en/purpose/governance/provisions/>

Incorporating Non-financial KPIs in Performance-linked Remuneration

Please refer to the following for information about the relationship between executive remuneration and non-financial indicators in our Medium-Term Business Plan.

<https://www.kirinholdings.com/en/purpose/governance/compensation/>

As of 2026, our CSV Commitments, which is incorporated into the management plans of the Kirin Group, is shown below.

https://www.kirinholdings.com/en/impact/csv_management/commitment/

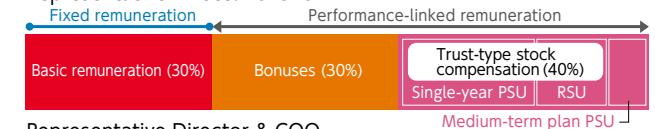
Structure of Executive Remuneration



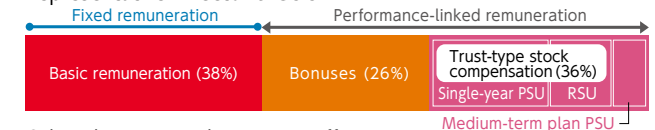
Item	Theme	Non-financial targets
Environment	Climate Change	Rate of reduction in GHG emissions Rate of reduction in Scope 1 + 2 emissions compared with 2019
	Water Resources	Basic unit of water usage at manufacturing sites with high water stress

* The proportion of executive remuneration recognized during the reporting period that is linked to environmental performance metrics, including climate-related criteria, cannot be separately identified as it is incorporated within the broader non-financial performance evaluation alongside other evaluation criteria.

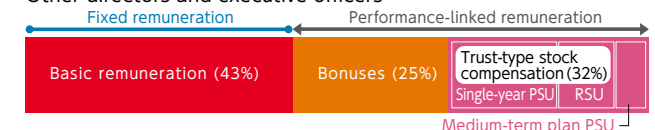
Representative Director & CEO



Representative Director & COO



Other directors and executive officers



● Percentage of management targets in PSU (Performance Share Unit)
ROIC : EPS growth rate : Non-financial indicators=40:40:20

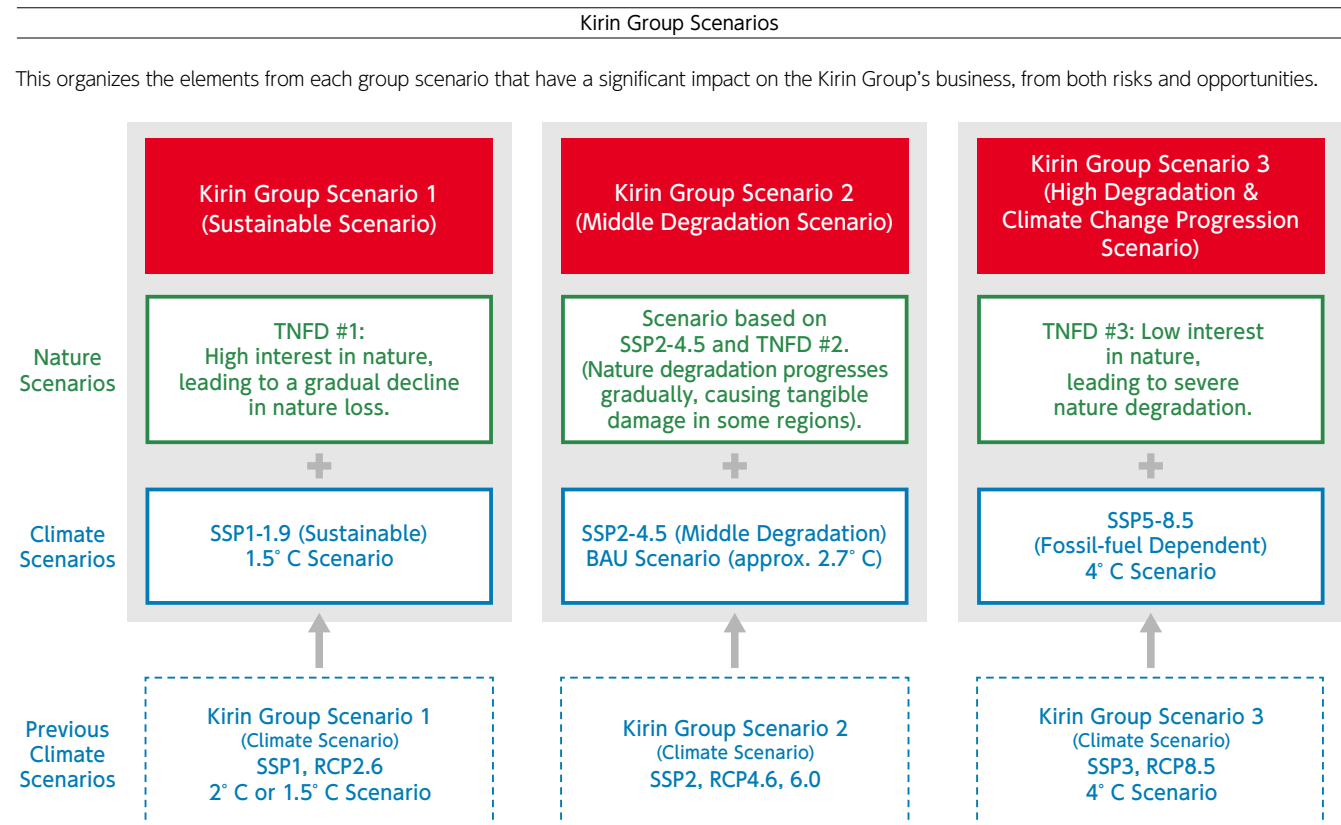
Scenario Analysis

Integration of Climate and Nature Scenarios

The Kirin Group initiated scenario analyses shortly after the release of the TCFD's final recommendations in 2017. In 2018, we established three proprietary "Kirin Group Scenarios" drawing on climate-related reference scenarios developed by international organizations, including the International Energy Agency (IEA) and the Intergovernmental Panel on Climate Change (IPCC) Fifth Assessment Report (AR5). Since then, we have continuously updated and expanded our scenarios based on the latest available information and have applied them to assess the resilience of our group's strategy. Subsequently, in response to the advancements in reference scenarios, including those noted above, and increasing recognition of the importance of an integrated approach to climate and nature in forming future outlooks, we conducted a comprehensive update of our climate scenarios in 2025 and developed new nature-related scenarios. We also identified commonalities between the two and integrated the climate and nature scenarios.

We updated our climate scenarios based on the latest available sources, including the International Energy Agency's World Energy Outlook 2024 (WEO 2024) and the IPCC Sixth Assessment Report (AR6). Utilizing combinations of Shared Socioeconomic Pathways (SSPs) and Representative Concentration Pathways (RCPs), we developed three scenarios: "Sustainable (1.5°C)," "Middle Degradation (2.7°C)," and "Fossil Fuel Dependent (4°C)." While no widely adopted standard scenarios currently exist for nature, we developed our nature-related scenarios based on the illustrative scenarios set out in the TNFD's scenario analysis guidance. We drew on multiple sources, including the IPBES Thematic Assessment Report on the Interlinkages among Biodiversity, Water, Food and Health (Nexus Assessment), particularly its future projection pathways, as well as the PRI's integrated climate-nature (FPS+N) scenarios, to develop scenarios grounded in the best available evidence. Details of the underlying sources are provided in the Appendix (References (→P.96)).

The updated and newly developed climate- and nature-related scenarios were combined based on similarities in their underlying narratives and integrated into "Kirin Group Scenarios 1–3" (see figure). These integrated scenarios are utilized to assess climate-related risks and opportunities that are reasonably expected to impact the Group's business outlook, and to quantify their potential financial impacts.



Assessment of Risks and Opportunities

Overview of Risk and Opportunity Assessment

Overall Picture of the Assessment of Risks and Opportunities Process

We present the overall framework of the Group's assessment process for dependencies, impacts, risks, and opportunities related to environmental issues in a matrix format. The vertical axis represents the value chain—from R&D, procurement, and production to demand and supply/logistics, and sales—while the horizontal axis sets out four key environmental issues: water resources, biological resources, climate change, and packaging. The resulting matrix is illustrated in the figure at the bottom right.

Assessment of Risks and Opportunities Based on Integrated Climate and Nature Scenarios

The integrated climate and nature scenarios newly developed in 2025 (Details (→P.17)) are positioned as the most comprehensive framework for assessing risks and opportunities that covers this entire matrix. The results of the assessment of risks and opportunities across the four environmental issues using these integrated scenarios are presented on (P.20-21).

Risk Assessment of Water and Land Use Based on SBTN Methodologies

In accordance with the methodologies recommended in the Science Based Targets for Nature (SBTN) Technical Guidance, particularly Step 1 (Assess) and Step 2 (Interpret and Prioritize), we conducted risk assessments and prioritization for water and land use across the value chain, from procurement through to our owned production sites (Details on risk assessment results (→P.22)).

Water Risk Assessment at Company-Owned Manufacturing Sites

For our owned production sites, we assess current and future water-related risks through a multi-dimensional approach, drawing on various water risk assessment tools, data sources, and detailed site-specific geospatial information. This assessment encompasses indicators including water quantity, water quality, flooding, governance, and WASH (Details on risk assessment results (→P.23)).

Assessment of Nature-Related Risks and Opportunities

For biological resources, we assess dependencies, impacts, risks,

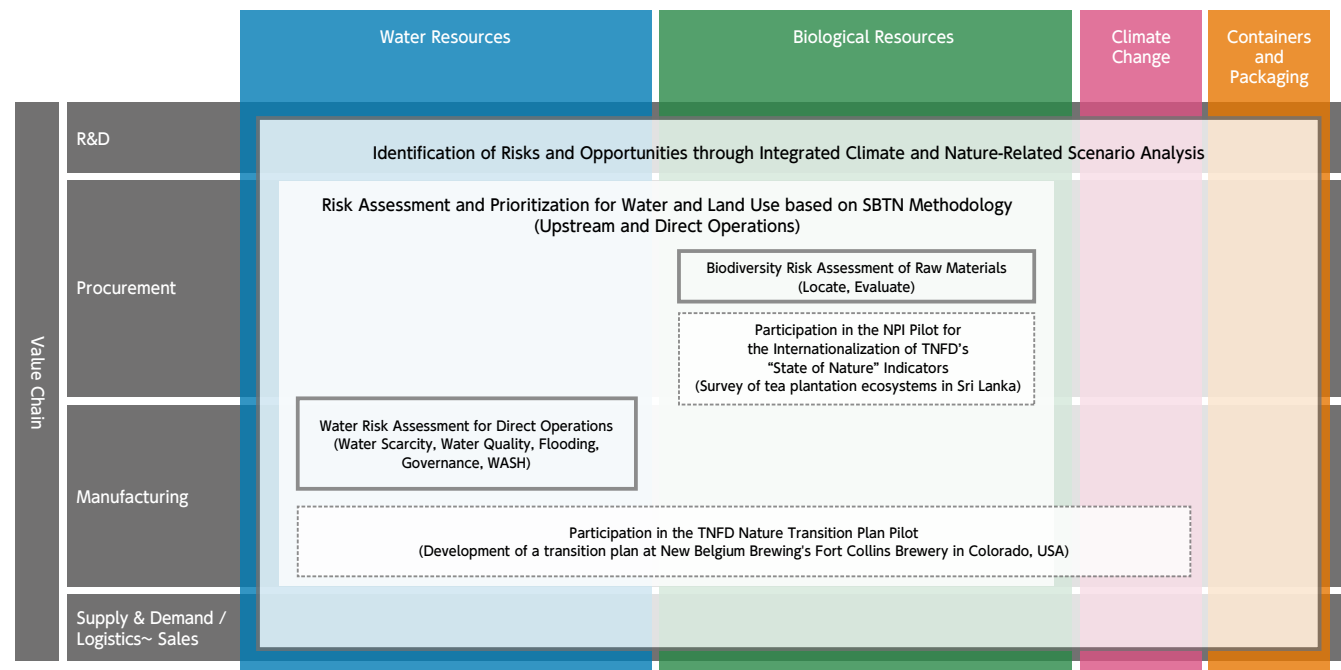
and opportunities in accordance with the TNFD LEAP approach. In 2025, we newly identified nine priority commodities and, through the Locate (identification of interfaces with nature) and Evaluate (assessment of dependencies and impacts) steps, deepened our analysis of issues associated with these commodities and their sourcing (production) regions. This analysis was informed by literature reviews and stakeholder interviews, as well as data sources and tools such as RepRisk and the Integrated Biodiversity Assessment Tool (IBAT) (Details on assessment results (→P.24-25)). The mapping between the risk and opportunity assessment processes under the SBTN and the TNFD LEAP approach is presented in the figure on the next page.

Contribution to TNFD Guidance Development

TNFD is an international framework for assessing nature-related

risks and opportunities for organizations and disclosing financial impacts. While it ensures alignment with the Task Force on Climate-related Financial Disclosures (TCFD), an international framework for climate-related financial information disclosure that has already gained widespread international adoption, quantitative scenarios for nature-related risks and opportunities and some core global indicators still have many aspects that remain under development. In response to these challenges, the Nature Positive Initiative (NPI), established through the collaboration of international environmental organizations, financial institutions, corporate coalitions, and scientific institutions, is working to develop common standards, measurement methodologies, and tools. As a partner of NPI, the Kirin Group is participating in pilot testing to develop the "State of Nature" metric, a key disclosure metric for TNFD. Through joint

Risk and Opportunity Assessment: Overall Picture



Assessment of Risks and Opportunities

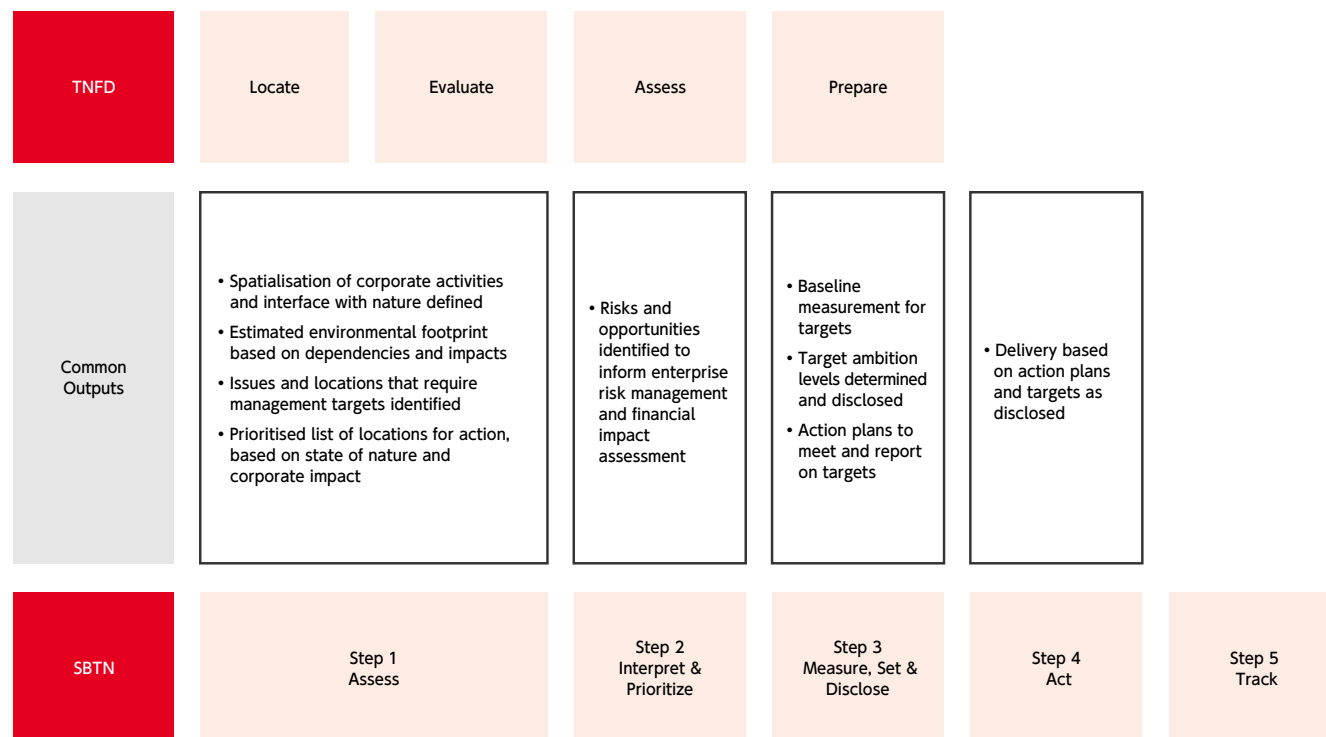
Overview of Risk and Opportunity Assessment

research conducted by Kirin Holdings and a research laboratory at the University of Tokyo, we are advancing the development of methodologies to measure the “State of Nature” at tea plantations in Sri Lanka and quantitatively analyze contributions to Nature Positive outcomes (Details [→P.27](#)).

Additionally, New Belgium Brewing, the Kirin Group’s U.S. alcoholic beverage company, participated in TNFD’s Nature Transition Plan

pilot program at its Fort Collins Brewery (Details [→P.27](#)). By applying internationally recognized frameworks in an integrated manner, we are advancing the holistic assessment of environment-related dependencies and impacts, as well as risks and opportunities, connecting them to the development and implementation of transition plans.

Risk and Opportunity Assessment Process Aligned with TNFD’s LEAP Approach and SBTN’s Methodology



Source: Adapted and modified from TNFD & SBTN (2023) Guidance for corporates on science-based targets for nature (Version 1.0)

Assessment of Risks and Opportunities

Assesment Based on Integrated Scenarios

Assessment of Risks and Opportunities Based on Integrated Climate and Nature-Related Scenarios

The Kirin Group has historically assessed sustainability-related risks—considering the interlinkages among climate change, natural capital, the Circular Economy, and social issues—by incorporating scenario analysis and other approaches, and has identified significant risks and opportunities requiring strategic responses. However, our previous assessments had limitations in terms of the comprehensiveness of environmental issues and business coverage, as well as the maturity of scenario analysis methodologies. We therefore determined that it was an appropriate time to review and enhance our assessment approach.

Consequently, in 2025, we conducted a reassessment of risks and opportunities across the Kirin Group's direct operations and entire value chain based on newly developed integrated climate and nature-related scenarios (Kirin Group Scenarios 1-3). Our approach was as follows: First, to determine whether additions or revisions were needed to our existing inventory of risks and opportunities, we conducted research on TNFD sector-specific guidance ("Food & Agriculture," "Beverages," and "Biotechnology & Pharmaceuticals"), as well as benchmark companies, identifying items and issues not covered in our current inventory. We also consolidated overlapping items in our existing risks and opportunities as appropriate. We then applied the risk assessment methodology used in our Enterprise Risk Management (ERM) framework to the resulting long list of risks and opportunities, evaluating impact and probability on a five-point scale, and used the product of these ratings as a "score" to determine materiality.

Threshold Setting for Significant Risks and Opportunities						
Impact	5	5	10	15	20	25
	4	4	8	12	16	20
	3	3	6	9	12	15
	2	2	4	6	8	10
	1	1	2	3	4	5
		1	2	3	4	5
Probability of occurrence						

Items scoring 20 points or more under any scenario were identified as particularly significant risks and opportunities, while those scoring 10 points or more were identified as significant risks and opportunities for disclosure. As a result, 22 risk items and 12 opportunity items were identified for disclosure (see table on the next page). Although some items scored below 10 points and were not considered material, the assessment led to the identification of new risk and opportunity items, which we consider to be a key outcome of the integrated scenario analysis.

	Risks	Opportunities
Particularly Significant Risks and Opportunities (Scores of 20 or higher)	14 items	9 items
Significant Risks and Opportunities (Scores of 10 or higher, below 20)	8 items	3 items
Risks and Opportunities with Scores 10 or Higher / Long List of Risks and Opportunities	22/30 items	12/14 items

*26 risks and 8 opportunities are disclosed in the Environmental Report 2025.

For the identified significant risks and opportunities, we estimated financial impacts after reviewing the underlying calculation logic and parameters. The impacts and response strategies for each risk and opportunity are described in "Risk and Impact Management > Significant Risks and Opportunities" (Details (→P.39 - 41)). The summary results of this updated assessment by risk and opportunity category are as follows:

Physical Risk

Several existing risk items were consolidated and renamed as "Impact of climate change and nature loss on agricultural products." Impacts on agricultural products arising from climate change, water risks, diseases, and pollution continue to be assessed as significant physical risk items, consistent with previous risk assessments. "Impact of water pollution on production" was newly added as a risk warranting disclosure.

Transitional Risks

Several existing item names were revised through consolidation or separation. "Increase in cost of relocating production and procurement areas due to expansion of protected areas" was newly added.

Systemic Risk

The name of an existing item was revised to "Reduction in agricultural land and ecosystem damage due to farmland abandonment and excessive use of agricultural chemicals." "Ecosystem damage due to leakage of pharmaceuticals" was newly added.

Opportunities

The following opportunities were added: "Development of new markets and regions through research and development of new pharmaceuticals," "Increased revenue due to growing demand for products contributing to nature restoration," "Enhancement of ecosystem services through crop breeding and advances in cultivation technologies," "Increase and diversification of available subsidies and financing due to strengthened nature-related policies," and "Enhanced brand value through positive evaluation of nature-related initiatives."

Assessment of Risks and Opportunities

Assessment of Risks and Opportunities Based on Integrated Scenarios

Risks and Opportunities Identified Through Integrated Scenario Analysis

: Particularly significant risks and opportunities with a rating of 20 points or higher
 : Risks and opportunities with a rating of less than 10 points
 ● : Newly identified risks and opportunities ○ : Existing risks and opportunities that have been consolidated or disaggregated

Classification of Risks		Significant Risks	Updates from the previous report
Physical risk	Chronic	Impact of climate change and nature loss on agricultural products	○
		Impact of water pollution on production	●
		Environmental pollution by improper disposal of used containers	
	Acute	Disruption of operations owing to floods	
		Impact on transportation from floods	
		Disruption of operations owing to droughts	
		Impact on agricultural products from floods and droughts	
Transitional risks	Policy	Impact of diseases and air pollution on agricultural products	
		Financial impact of carbon pricing on energy, agricultural products, and raw material procurement	○
		Early replacement of currently held assets for decarbonization	○
		Cost of regulatory response	○
		Cost of responding to pollution-related regulations	○
		Cost of responding to land use-related regulations	○
		Cost of responding to genetic resource-related regulations	○
		Increase in cost of relocating production and procurement areas due to expansion of protected areas	●
		Environmental and economic incompatibility with rapid agricultural policy transitions	
		Risk of receiving penalties due to failure to meet legally binding targets for food waste reduction	●
	Markets	Social resistance to fossil-derived raw materials	
		Concerns about deforestation	
		Opportunity loss due to ethical consumption	
		High energy prices	

Classification of Risks		Significant Risks	Updates from the previous report
Transitional risks	Technology	Decline in ability of engineering departments to respond and lack of appropriate investment	
		Lack of research and development resources and lack of long-term perspective	
		Cost of responding to waste and recycling regulations	
	Reputation	Operational impact and reputational damage due to conflicts with local communities	●
		Loss of investor trust	
		Concerns about renewable energy facilities	
		Responsibility for pollution of the natural environment	
Systemic risk	Reduction in agricultural land and ecosystem damage due to farmland abandonment and excessive use of agricultural chemicals		○
	Ecosystem damage due to leakage of pharmaceuticals		●

Classification of Opportunities	Significant Opportunities	Updates from the previous report
Markets	Increasing distribution in infectious diseases caused by global warming	
	Increase in heatstroke caused by global warming	
	Development of new markets and regions through research and development of new pharmaceuticals	●
	Enhanced access to new markets through collaboration with environmentally friendly brands	●
Products and services	Increased expectations for products and services that contribute to decarbonization	
	Increased revenue due to growing demand for products contributing to nature restoration	●
Resource efficiency	Sustainable logistics	
	Reduction of container and packaging raw materials and stable procurement	
	Reduction in input costs through Circular Economy initiatives	●
Energy sources	Reduction in reliance on fossil fuels, stable procurement of renewable energy, and promotion of energy conservation	○
Resilience	Strengthening the supply chain	
	Enhancement of ecosystem services through crop breeding and advances in cultivation technologies	●
Capital flows and financing	Increase and diversification of available subsidies and financing due to strengthened nature-related policies	●
Reputational Capital	Enhanced brand value through recognition of nature-related initiatives	●

Assessment of Risks and Opportunities

Risk Assessment of Water and Land Use

Assessment Based on The Methodology of SBTs for Nature (SBTN)

The Kirin Group conducts its business relying on the “blessings of nature,” such as biological and water resources. Accordingly, we support the initiatives of the SBT Network, which promotes the setting of integrated and science-based targets (Science Based Targets for Nature: SBTN) covering multiple aspects of nature, including not only climate, but also freshwater, land, oceans, and biodiversity. In line with the SBTN Technical Guidance v1.1 released in 2024 we are considering the development of targets to support our environmental goals. In 2025, using the methodology outlined in Steps 1 and 2 of the guidance, we assessed and prioritized risks related to water resources and land use across our value chain, from upstream activities to our own production sites.

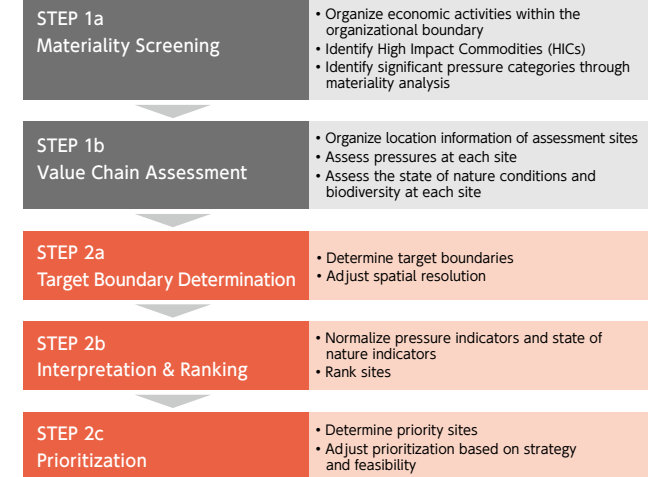
In Step 1a of the assessment process, as part of the materiality screening, we identified the significant impacts (pressures) on nature arising from economic activities in our direct operations and upstream value chain. In Step 1b, among the pressure categories identified as significant, for direct operation sites, we organized information on sites to be assessed with

respect to water use and water pollution, and for the upstream value chain, we organized information on procured goods (coffee beans, soybeans, palm oil, etc.) that are classified as High Impact Commodities by SBTN, and evaluated associated pressures (water use, water pollution, soil pollution, land use and land use change) at each site. For the assessment of these pressures, we utilized external inventory databases including ecoinvent and IDEA.

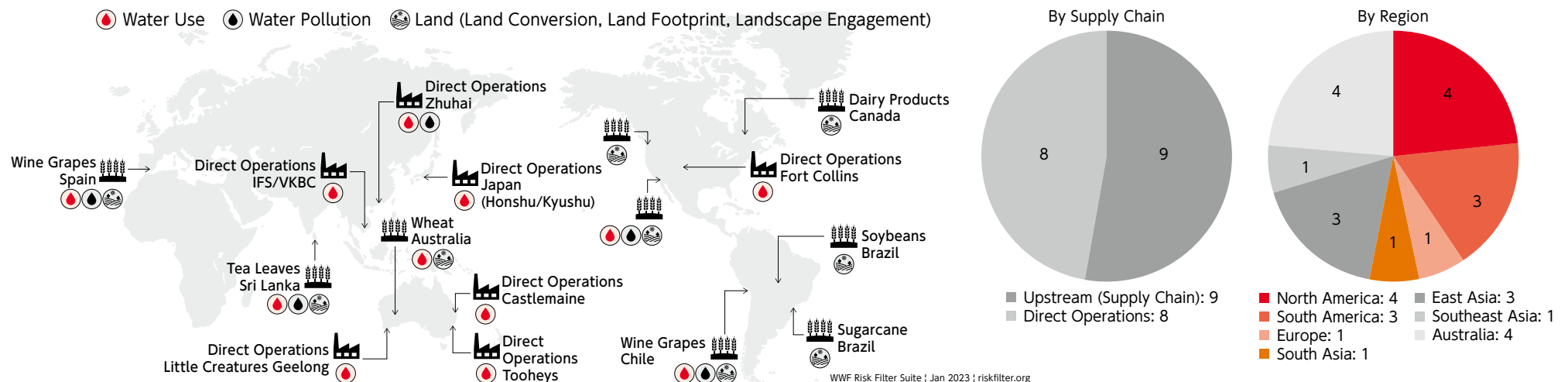
In Step 2, we evaluated the state of nature and biodiversity at each target site using multiple indicators. Based on the resulting scores, we ranked the sites and identified priority areas where targets should be set at the basin or regional level (see figure below).

Going forward, we will advance discussions on setting specific targets. In this process, we recognize the need for a comprehensive assessment of feasibility, costs, and financial impact, taking into account the current state of development of foundational information (such as local watershed models) to align with the target-setting approach recommended by the SBTN guidance and to facilitate dialogue with local stakeholders.

Assessment Process based on SBTN Methodology



Priority Sites (Watersheds or Regions) Identified using the SBTN Steps 1 & 2 Methodology



The above represents the results of identifying priority watersheds by applying the SBTN Steps 1 & 2 methodology.

Assessment of Risks and Opportunities

Water Risk Assessment for Our Own Production Sites

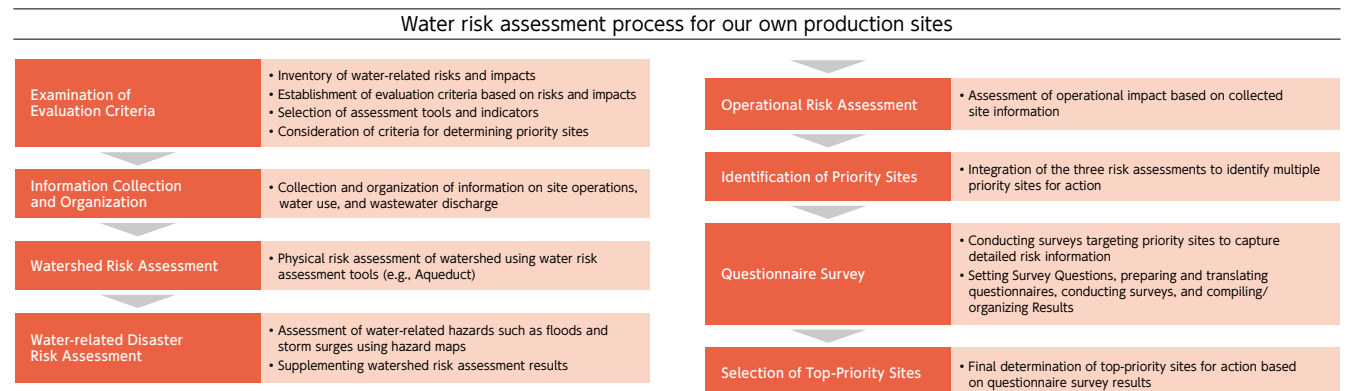
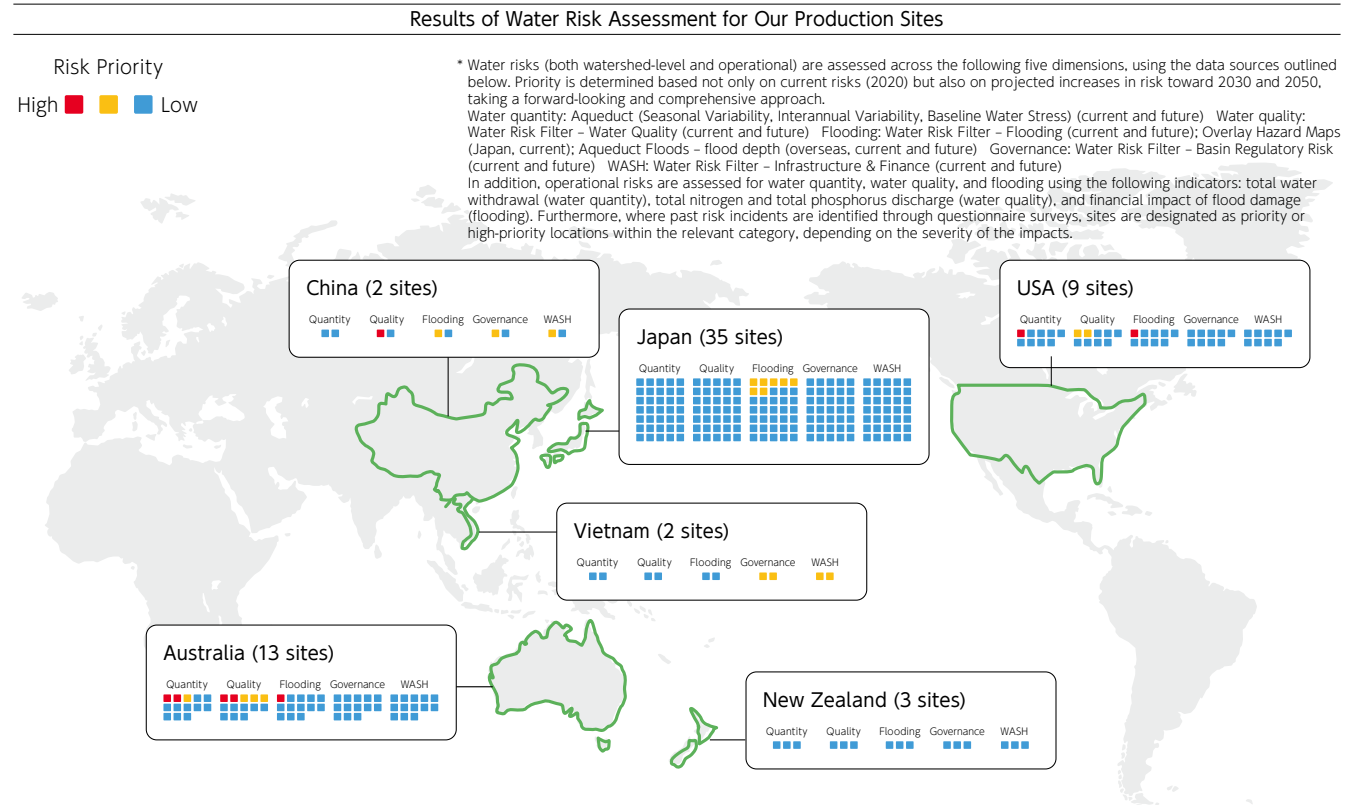
Overview of Water Risk Assessment

Water-related risks at our manufacturing sites have historically been assessed using publicly available tools, including Aqueduct. However, in 2024, a group site that had not been classified as high risk under these tools experienced flooding damage associated with a hurricane. This led us to recognize the need to review the alignment between tool-based assessments and actual conditions, as well as the granularity of the assessment and the comprehensiveness of the evaluation dimensions.

In response to this background, the comprehensive review conducted in 2025 followed the process outlined below. First, using the location information (latitude and longitude) of our own production sites, we assessed current and future (2030 and 2050) water risks at the basin level, employing tools such as WRI's Aqueduct, Aqueduct Floods, WWF's Water Risk Filter, and hazard maps by the Ministry of Land, Infrastructure, Transport and Tourism. We then evaluated a set of indicators related to water quantity, water quality, water-related disasters, governance, and WASH¹ from multiple perspectives, taking into account operational water risks specific to the business context of each site.

In addition to sites where watershed risks or operational risks are currently high, we identified as priority sites those where watershed risks are projected to increase in the future. For major priority sites, we conducted additional questionnaire surveys to confirm the actual status of water risk occurrence and operational disruptions, and verified that there were no discrepancies with on-site conditions. Based on a comprehensive evaluation of this analysis, sites with a confirmed track record of risk occurrence or associated cost increases was designated as "top priority sites" (indicated in red in the figure on the right). Moving forward, we plan to prioritize responses for these sites, including the setting of water-related targets.

*1 WASH: The acronym WASH stands for Water, Sanitation, and Hygiene, specifically referring to the provision of water supply, drainage, toilets, and waste disposal. As safe drinking water, sanitation facilities, and hygiene are essential for human health and well-being, WASH is adopted as an indicator in the assessment of water-related risks.



Assessment of Risks and Opportunities

Assessment of Nature-Related Risks and Opportunities

Scoping Phase

Scenario analysis suggests that climate change and nature loss are likely to have particularly high impacts on agricultural products over the medium to long term, both in terms of magnitude and probability. Given that the Kirin Group procures various agricultural products from around the world, we formulated a working hypothesis that the procurement stage of raw materials represents a point of particularly high dependencies on and impacts on nature within our business activities and across the value chain. Based on this hypothesis, in 2024, we conducted an analysis and assessment of 21 major agricultural raw materials—primarily those with significant procurement amount, including those covered under the “Kirin Group Action Plan for the Sustainable Use of Biological Resources”—using two axes: “the business’s impacts on nature” and “the business’s dependencies on nature.” This enabled us to scope and prioritize agricultural products for more detailed analysis under the LEAP approach.

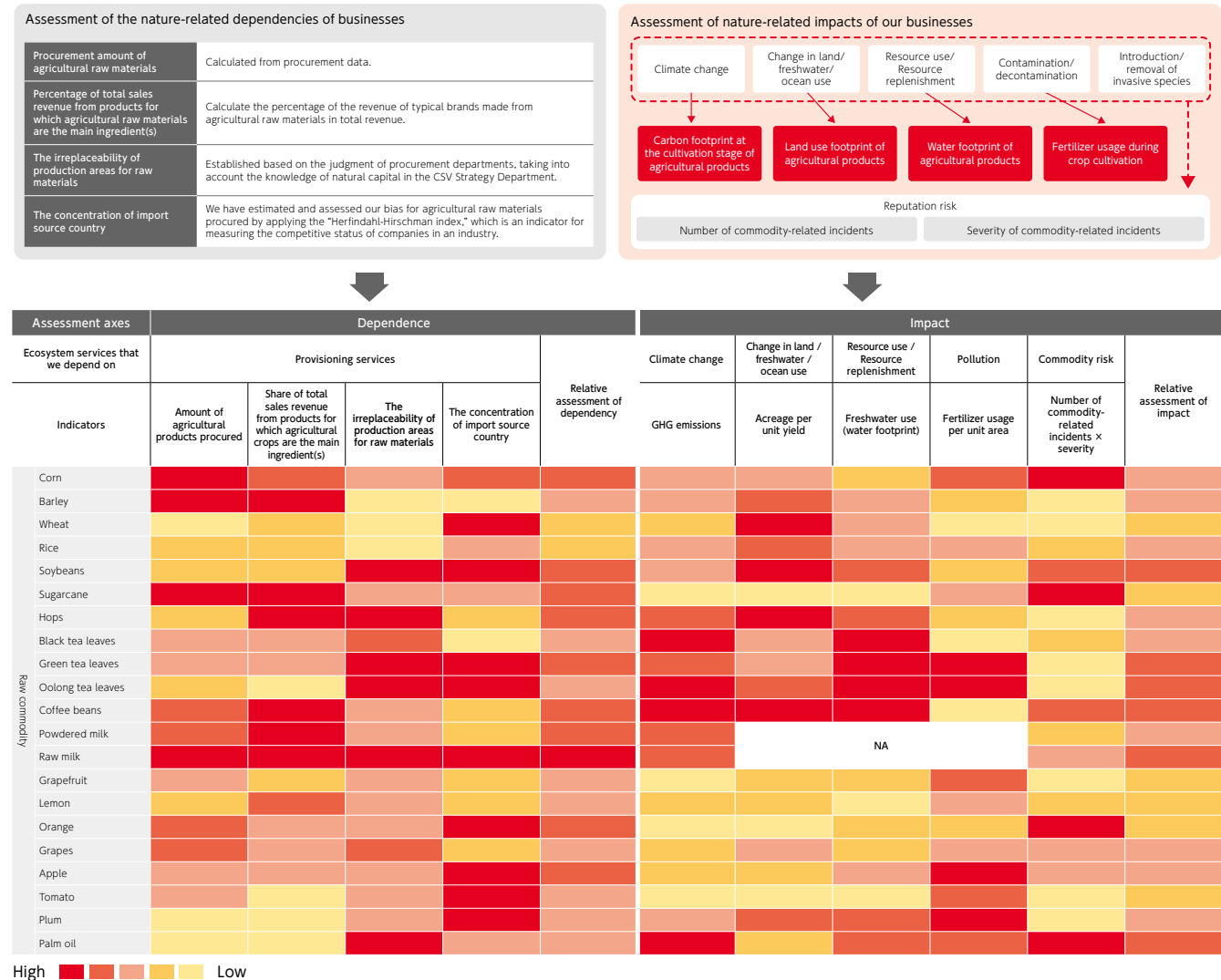
For “the business’s dependencies on nature,” we assessed the degree of dependence on the “provisioning services” of raw agricultural products, as identified as a type of dependency in the TNFD recommendations. We evaluated this using our own assessment indicators: “procurement amount,” “impact on group sales revenue,” “irreplaceability of production areas for raw materials,” and “concentration of import source country.”

For “the business’s impacts on nature,” we assessed indicators for which crop-specific data are available among the five impact drivers identified by IPBES*¹ which the TNFD recommendations state should be considered: “carbon footprint at the cultivation stage,” “land use footprint,” “water footprint,” and “fertilizer use.” Additionally, based on external databases on risk incidents, we verified whether the target agricultural products are commodities associated with “reputational risk” on a global scale.

Through this process, we identified priority agricultural products for which more detailed risk and opportunity assessments should be conducted in accordance with the LEAP approach.

*¹ IPBES: An intergovernmental organization that conducts scientific assessments of trends related to biodiversity and ecosystem services and strengthens the interface between science and policy.

Assessment Procedures and Heatmap of Dependency and Impact Assessment Results²



² The carbon footprint is based on the ClimateHub database, land use data comes from the FAO’s 2022 release, freshwater data is from Mekonnen and Hoekstra (2011), fertilizer use is based on IFASTAT (2018), and reputational risk is assessed using RepRisk.

Assessment of Risks and Opportunities

Assessment of Nature-Related Risks and Opportunities

Locate and Evaluate Phases - Analysis of Priority Agricultural Raw Materials

Based on the results of scoping phase, we identified the following nine priority agricultural products and two priority sourcing countries for each that should undergo more detailed assessments of dependencies and impacts in accordance with the LEAP approach:

1. Coffee (Vietnam, Tanzania)
2. Tea leaves (India, Kenya)
3. Palm oil (Malaysia, Indonesia)
4. Corn (United States, Thailand)
5. Sugarcane (Brazil, Australia)
6. Barley (Australia, France)
7. Soybeans (China, Brazil)
8. Raw Milk (Japan, South Korea)
9. Grapes (Chile, Spain)

At the procurement stage of agricultural raw material, we recognize that interactions between business and nature vary depending on regional characteristics and agricultural practices. Therefore, we conducted a literature review of environmental and social issues related to the production of raw agricultural materials in each sourcing country along with screening of reputational risks using RepRisk.

For the environmental dimension, we conducted the Locate and Evaluate steps covering key drivers such as climate change, land, freshwater and marine use change, resource use, pollution, and invasive species. For the social dimension, we addressed issues including workers' human rights, the rights of local communities and Indigenous peoples, and corruption and bribery.

Furthermore, for coffee, tea leaves, and palm oil—which are particularly important raw materials—we conducted interviews with environmental NGOs (Rainforest Alliance and WWF) to confirm the level of awareness of each issue, the existence of preventive and response measures, the status of development of relevant guidelines, and the presence, absence, and scale of actual impacts and damages that have occurred.

For these three raw materials, we compiled location data for relevant regions and sites and conducted detailed location-based analysis using Integrated Biodiversity Assessment Tool (IBAT).

The figure on the right summarizes the number of literature

references to environmental and social issues, categorized by raw agricultural product and sourcing country. A higher frequency of mentions indicates that the issue has been consistently identified as a concern across multiple studies and reports, and is therefore recognized as a priority issue requiring close attention.

Based on analysis conducted using IBAT, including indicators

such as species extinction risk, we identified a relatively high concentration of biodiversity-significant high-risk locations (e.g., plantations and production areas) for tea leaves in Kenya and palm oil in Malaysia. By contrast, while coffee in Vietnam represents a significant share of our sourcing, relatively few high-risk locations were identified in this analysis.

Assessment Results of Environmental and Social Issues in the Top Two Sourcing Countries for Nine Priority Agricultural Products

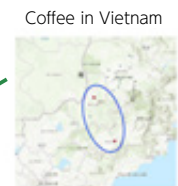
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Raw Agricultural Product	Procurement Country	Environmental Issues					Social Issues		
		Climate Change	Land/ Freshwater/ Ocean Use Change	Resource Use	Pollution	Introduction of Invasive Species	Workers' Human Rights	Human Rights of Local Communities and Indigenous Peoples	Other
Coffee	Vietnam	6	4	5	10	0	3	0	0
	Tanzania	3	3	1	0	0	2	0	0
Tea Leaves	India	11	4	1	12	0	6	2	0
	Kenya	4	0	2	2	0	5	0	0
Palm Oil	Malaysia	6	7	0	10	0	5	1	0
	Indonesia	6	12	2	8	0	9	2	2
Corn	USA	7	4	2	8	0	1	1	0
	Thailand	4	3	1	6	1	1	0	0
Sugarcane	Brazil	3	10	2	15	0	7	2	0
	Australia	3	3	4	8	1	0	1	0
Barley	Australia	4	1	0	0	1	0	0	0
	France	3	0	0	1	0	0	0	0
Soybean	China	2	4	1	0	0	0	0	0
	Brazil	3	12	4	5	0	3	4	0
Raw Milk	Japan	9	1	2	8	1	1	0	0
	South Korea	2	0	0	1	0	0	0	0
Grapes	Chile	2	4	6	7	0	0	2	0
	Spain	7	5	5	8	0	3	1	0

* Note: #of references to environmental and social issues were aggregated by raw agricultural product and sourcing country. Issues with a higher frequency of mentions in the literature are considered more likely to be identified as concerns across multiple studies and reports, and are therefore classified as priority issues requiring close attention.

Distribution of High Risk Locations with Biodiversity Significance

●: High-risk locations



Tea leaves in India



Tea leaves in Kenya



Palm oil in Malaysia / Indonesia



Assessment of Risks and Opportunities

Assessment of Nature-Related Risks and Opportunities

Prepare Phase - Respond and Report

In the Prepare phase, we examined how the Kirin Group should respond to and disclose the issues identified through the proceeding steps of the LEAP approach. Based on the detailed location analysis conducted in 2025, high-risk locations were identified for coffee (Vietnam and Tanzania), tea leaves (India and Kenya), and palm oil (Malaysia and Indonesia), where environmental and social risks have been observed to materialize in the respective production areas. Going forward, we plan to prioritize efforts to ensure traceability and promote supplier engagement in these areas.

Engagement with Oil Palm Plantations

Palm oil is an essential raw material for many cosmetics products and health food products. The FANCL Group is also a member of the Roundtable on Sustainable Palm Oil (RSPO), an international sustainability certification for palm oil, and is working to promote sustainable raw material procurement.

In 2025, to directly observe upstream production sites in the supply chain and deepen our understanding of impacts on people and the environment, FANCL, Kirin Holdings, and the environmental conservation organization WWF jointly organized a visit to RSPO-certified oil palm plantations in Indonesia. This provided us insights into a wide range of issues, including palm cultivation practices, land use, labor conditions, and relationships with local communities, as well as leading practices aimed at addressing these challenges. Going forward, we will continue to advance sustainable sourcing of raw agricultural materials and strengthen support for producers and suppliers in line with the "Kirin Group Action Plan for the Sustainable Use of Biological Resources".



Visit to RSPO-Certified Oil Palm Plantation in Indonesia

Contributing to the Development of TNFD Core Global Metrics Through Engagement with Sri Lankan Tea Plantations

We consider it essential, under the TNFD framework, not only to address risks and opportunities associated with the Kirin Group's business operations, but also to drive transformative change across and beyond the value chain, including among organizations and future generations, toward achieving a Nature-Positive outcome. As a partner of the Nature Positive Initiative (NPI), the Kirin Group is participating in pilot testing aimed at developing "State of Nature" metrics, a key TNFD disclosure indicator. Since June 2025, in collaboration with a research laboratory at the University of Tokyo, we have been developing a methodology to measure the "State of Nature" at tea plantations in Sri Lanka, which produce the raw materials for Kirin "Gogo-no-Kocha," and to quantitatively analyze the contribution of regenerative agriculture to Nature Positive outcomes.

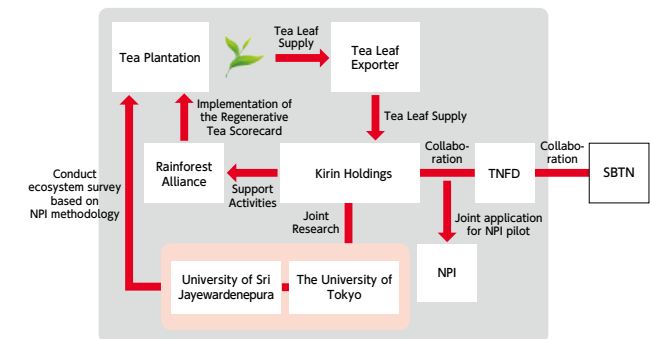
Specifically, in the central highlands of Sri Lanka, we conducted field surveys of flora and fauna in collaboration with the University of Sri Jayewardenepura, a local research institution, as well as multispectral image analysis using drones (land cover classification, vegetation health assessment, mapping of semi-natural habitats) and laser-based measurements of canopy height, topography, and slope. We conducted a comprehensive assessment of the ecological integrity, including baseline assessments of ecological extent, habitat connectivity, species risk, and species abundance, as well as land structure, water flow, and erosion risk.

As a result, 176 species of flora and fauna were identified at the tea plantations where the Kirin Group supports the practice of regenerative agriculture. In addition to endemic species found only in specific regions, species listed as threatened in the "National Red List of Sri Lanka" were confirmed. The study also found that the riparian areas, one of the key components of the tea plantation landscape, maintain moist soil and vegetation that provide habitat essential for the survival of endangered species. These findings confirmed that tea plantations serve as important sites for regional biodiversity conservation. In collaboration with the University of Tokyo, we are developing a methodology to quantitatively assess how the practice of regenerative agriculture contributes to farmers' income security and improved well-being through plantation

diversification and reduced production costs. After identifying the key elements and challenges that shape the well-being of plantation workers, we plan to examine how the Kirin Group provide effective support.

In November 2025, we held a forum in Sri Lanka that brought together stakeholders, including representative of the Sri Lankan government, to present Kirin's efforts regarding sustainable procurement and exchange views. By supporting the creation of an environment in which tea plantations can operate sustainably while respecting nature and human rights, we will continue to widely communicate the necessity of such initiatives that contribute to enriching society through our products.

Stakeholders in Regenerative Agriculture Initiatives at Sri Lankan Tea Plantations and Development of a TNFD "State of Nature" Metric



Kirin Forum in Sri Lanka



Landscape of Sri Lankan Tea Plantations

Assessment of Risks and Opportunities

Assessment of Nature-Related Risks and Opportunities

“KIRIN Nature School in Sri Lanka” to Foster the Next Generation

In collaboration with international environmental NGO OISCA and the Japan Environment Education Forum, we provided environmental education workshops for primary and secondary school students attending schools at tea plantations in Sri Lanka where we implemented the Nature Positive Initiative (NPI) pilot test. These workshops were conducted for children attending schools located within the tea plantations that produce tea leaves for “Gogo-no-Kocha”. Through these activities we aim to foster awareness of biodiversity among the next generation within the plantation communities. By inviting parents to observe the workshops, we also aim to foster a sense of pride in their local communities among parents who are tea leaf producers. Looking ahead, we plan to develop programs to nurture future leaders and expand the initiatives into online exchange classes connecting Japan and Sri Lanka.



KIRIN Nature School in Sri Lanka



Nature Bingo activity: Children searching for flora and fauna in the tea plantations



Parents observing their children's activities

Development of Nature-Related Transition Plan at U.S. Brewery

New Belgium Brewing (NBB), the Kirin Group's alcoholic beverage company in the United States, participated in the TNFD Nature Transition Plan Pilot Program at its Fort Collins Brewery (FCB). FCB sources water from a watershed in Colorado that is considered to have high water risk. While FCB has priority water rights under a long-term agreement with the local municipality, water resources in this watershed are shared among local community, agriculture, and industry. As a result, water security is a common challenge for multiple stakeholders within the watershed. Increasing water stress in the future may lead water related risks, such as changes in policy-driven water allocation rules and rising costs.

Through participation in the pilot program, we developed a transition plan for FCB with the aim of reducing risks associated with NBB's business operations. We believe this initiative contributes to the development of practical knowledge as a case study for transition planning under the TNFD recommendations.

Through the pilot program, we conducted ongoing consultations with watershed stakeholders, including local communities and municipalities. This process reaffirmed that, for NBB to secure its social license to operate and enhance the resilience of ecosystem services at the watershed level, it is essential not only to improve water-use efficiency at its brewery operations, but also to advance engagement and collaboration at the watershed scale—i.e., through a landscape approach. This operational process was subsequently featured in the TNFD Guidance on Nature in Transition Plans*¹ published in November 2025. To mark the release of the final guidance, Fujikawa, then-Senior Executive Officer of Kirin Holdings, participated in a TNFD-hosted webinar as a representative of the pilot program companies. During the discussion with speakers from UK institutional investors and NGOs, he shared insights on the guidance, the outcomes of the pilot program, and how companies and financial institutions can use the guidance when developing transition plans.

The pilot program represented an effort to develop a site-level nature-related transition plan, generating valuable insights and strengthening stakeholder relationships. Going forward, we will leverage this experience to explore the development of a nature-

related transition plan for the Kirin Group as a whole.

*1 TNFD (2025) TNFD Guidance on Nature in Transition Plans
<https://tnfd.global/publication/guidance-on-nature-in-transition-plans/>

Highest Number of Votes in GPIF's “Excellent TNFD Disclosure” Selection

In the “Excellent TNFD Disclosure” selection first published by the Government Pension Investment Fund (GPIF) in 2025, Kirin Holdings received support from the highest number six out of 20 external asset managers managing domestic equities for GPIF—and was recognized as a leading company. These results are featured in the annual report*² published by GPIF. Kirin Holdings' disclosure was evaluated for covering the key elements of TNFD, quantifying financial impacts by theme and topic, conducting materiality assessments that consider regional characteristics, and disclosing metrics and targets. We will continue to enhance our nature-related disclosure and engagement with investors to support informed investment decision-making.

*2 Government Pension Investment Fund (2025) FY2024 Sustainability Investment Report
https://www.gpif.go.jp/esg-stw/esginvestments/2024_sustainability.html



Workshop on transition planning at New Belgium Brewing Fort Collins Brewery

Financial Impact

Financial Impact Assessment

We assessed the financial impacts of climate change, natural capital, and containers and packaging, and summarized the interrelated impacts. Estimates of the financial impact related to climate change and natural capital are limited, and we cannot determine risk from financial impact estimates alone. Accordingly, we have combined these estimates with qualitative analysis and assessments from scenario analysis for reflection in our strategies. In our securities report, we disclose our strategies for addressing sustainability-related risks and opportunities that may reasonably be expected to affect the Group's prospects, as well as the financial impacts of our responses to these risks and opportunities. We believe that these risks will not result in material adjustments to the carrying amounts of assets and liabilities reported in the financial statements for the following fiscal year.

* The calculation methods for each financial impact are as follows:

- *1 Reduced yields of agricultural products due to climate change: Estimated from standard prices for beer by country as shown in the results of research using the economic models of Xie et al., and the research results of Hasegawa et al., as presented in the IPCC "Special Report on Climate Change and Land (SRCLL)."
- *2 Calculated the Increase in energy procurement costs associated with Scope 1 and 2 emissions, as well as those associated with Scope 3 emissions. The carbon prices are based on the IPCC Sixth Assessment Report. In addition to the impact of carbon pricing, changes in electricity prices are considered (Ref: Network for Greening the Financial System). For Scope 3, only Categories 1 and 4 were included in the calculation.
- *3 Carbon pricing and prices of agricultural products: Estimated from the research results of Hasegawa et al., as presented in the IPCC "Special Report on Climate Change and Land (SRCLL)."
- *4 Based on the latest procurement data, GHG emissions from aluminum, plastics including PET, and paper are calculated. These are then multiplied by scenario-specific and country-specific carbon tax prices from the IPCC Sixth Assessment Report and the pass-through rate in the upstream supply chain.
- *5 Disruption of operations owing to floods: Estimates are based on information collected in accordance with the results of the water risk analysis conducted in 2025 for production, distribution, and replenishment at our own sites. The anticipated financial impacts include damage to owned assets caused by flooding, losses incurred during periods of operational disruption and response costs such as restoration expense, insurance costs, etc.
- *6 Disruption of operations owing to droughts: Estimates are based on information collected in accordance with the results of the water risk analysis conducted in 2025 for production, distribution, and storage at our own sites. The anticipated financial impacts include damage to business operations caused by droughts. This also includes damage from water intake restrictions, with reference to the number of restriction days published by governments and local authorities in each country.
- *7 Negative impact of PET bottles: Estimated the financial impact in the event of a negative influence on natural capital from improperly disposed of used PET bottles that leak into the ocean from available statistics based on the company's own production volume ratios.
- *8 Procurement of Recycled PET Resin: An internal estimate of the incremental cost required to procure the volume of recycled PET resin necessary to meet the targets set forth in the Kirin Group Plastic Policy, based on the unit prices assumed at the time the policy was formulated.

Estimated Financial and Asset Impact

Environmental themes	Risk types	Business risks / social issues	Financial impacts
Climate change	Physical risk	Decline in yields of agricultural products*1	Sustainable Scenario: 0.9 billion yen to 2.6 billion yen (2050) Middle Degradation Scenario: 1.3 billion yen to 3.1 billion yen (2050) High Degradation & Climate Change Progression Scenario: 3.1 billion yen to 12.1 billion yen (2050)
	Transitional risk	Financial impact of energy due to carbon pricing*2	Sustainable Scenario: 91.8 billion yen (2050) Middle Degradation Scenario: 3.8 billion yen (2050) High Degradation & Climate Change Progression Scenario: 3.1 billion yen (2050)
		Financial impact of agricultural products due to carbon pricing*3	Sustainable Scenario: 0.9 billion yen to 4.1 billion yen (2050) Middle Degradation Scenario: 2.2 billion yen to 6.6 billion yen (2050) High Degradation & Climate Change Progression Scenario: 2.2 billion yen to 8.1 billion yen (2050)
Climate change and containers and packaging	Transitional risk	Financial impact of packaging material procurement due to carbon pricing*4	Sustainable Scenario: 43.8 billion yen (2050) Middle Degradation Scenario: 1.1 billion yen (2050) High Degradation & Climate Change Progression Scenario: 0.1 billion yen (2050)
Climate change and natural capital	Physical risk	Disruptions to operations owing to floods*5	Exposure under a 1-in-200-year event: 42 billion JPY/year (43 group sites)
		Disruptions to operations owing to droughts*6	Exposure under a 1-in-10-year drought event (7 high water-risk group sites): • +1.5°C: 46 billion JPY/year • +2.0°C: 55 billion JPY/year • +4.0°C: 93 billion JPY/year
Natural capital and containers and packaging	Physical risk	Negative impact of PET bottles*7	2.9 billion yen
	Transitional risks	Procurement of recycled PET resin*8	2.0 billion yen (2027)
		Procurement of certified products*9	0.1 billion yen
Climate change	Business opportunity	Increase in infectious diseases*10	Market for immunity and health supplements: 28,961.4 million US dollars (2030)
		Increase in heatstroke*11	Market for non-alcoholic beverages that prevent heatstroke: 94 billion yen to 188 billion yen (2100, 4°C scenario)
Natural capital	Business opportunity	Reducing food waste*12	0.9 billion yen
		Financial impact from the reduction of chemical fertilizers and pesticides for coffee farms in Vietnam*13	0.1 billion yen

Environmental themes	Risk types	Business risks / social issues	Financial impacts
Climate change	Transitional risks	Exposure of production sites to floods*14	1.0 billion yen to 5.0 billion yen
		Residual value of related facilities due to strengthening of energy-saving legislation*15	1.1 billion yen

- *9 Risk from transition to certified products: Estimation of expenses from switching to tea and coffee procured from certified sustainable farms to the extent currently possible.
- *10 Infectious diseases: Estimated from WHO "Quantitative risk assessment of the effects of climate change on selected causes of death, 2030s and 2050s" and "Dengue and severe dengue," January 10 2022.
- *11 Heatstroke: Estimated from a S-8 2014 Report by Project Team of Comprehensive Study on Impact Assessment and Adaptation for Climate Change.
- *12 Food waste reduction: Estimated from the cost reduction effect if the target is achieved (Kirin Brewery, Kirin Beverage, Mercian, Koiwai Dairy Products).

- *13 Reduction in agricultural chemicals and fertilizers: Estimated reduction in costs associated with the reduction of chemical fertilizers and pesticides for coffee farms in Vietnam
- *14 Flood exposure: Estimated from wind and flood damage model flood simulations and actual data
- *15 Residual value of related facilities due to strengthening of energy-saving legislation: Residual value of boilers and trucks (both are assumed to have a very low possibility of being discontinued before the end of their useful life in the event fuel conversion is mandated by law. We have determined that there will be no financial impact, but for reference purposes, we disclose the residual value)

Transition Plans

Investment and Financial Plans

We have formulated holistic business transition plans which aim to simultaneously realize a decarbonized society, Nature Positive, and Circular Economy, ensuring business continuity.

Our transition plans from the perspective of climate change mitigation and adaptation are shown in the figure on the right.

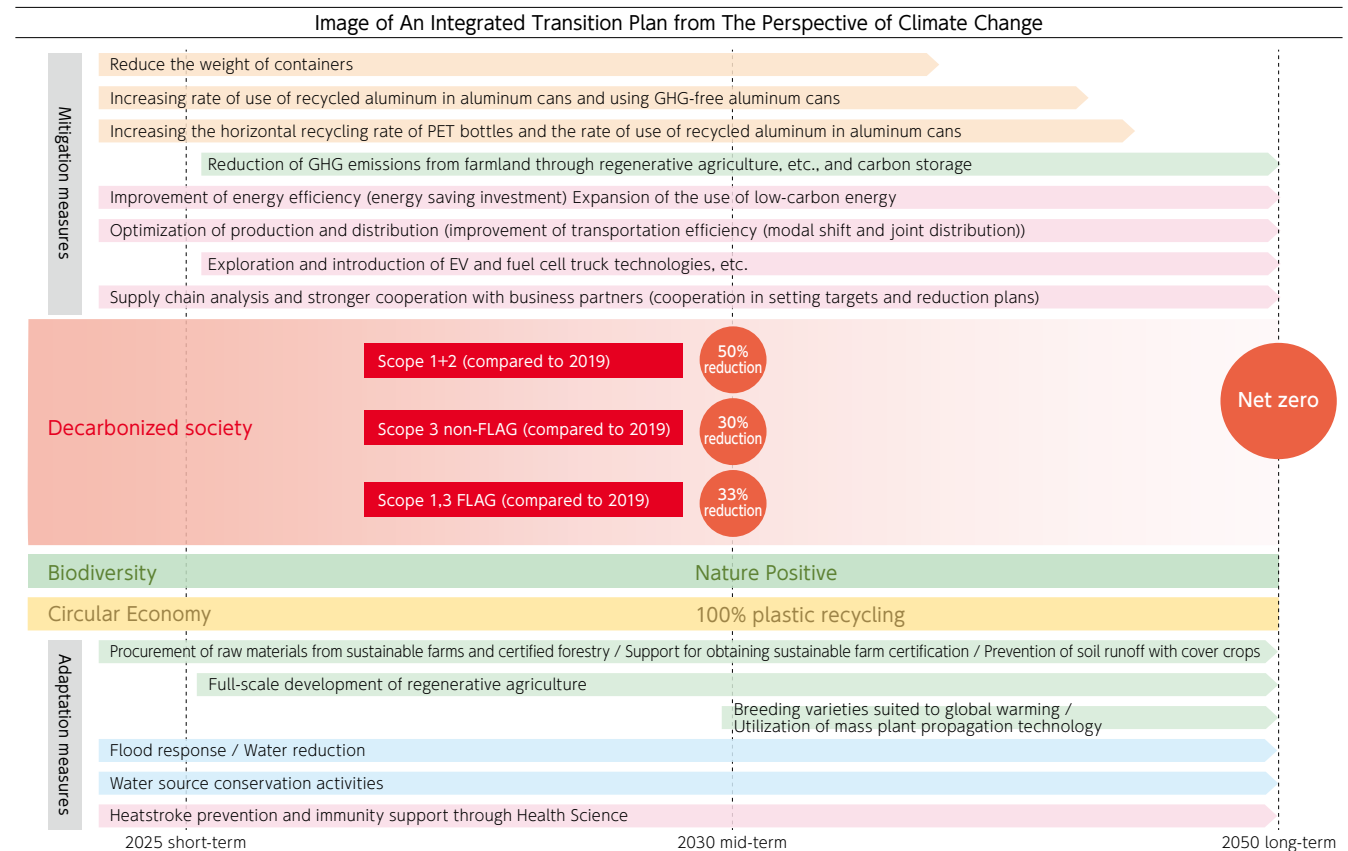
Investment Plans and Financing Plans

Investment and financing plans for “Scope 1+2 GHG emissions reduction,” “Scope 3 GHG emissions reduction” and “expansion of the use of recycled PET resin” are shown in the figure on the bottom right.

We make investment decisions based on annual plans to address issues related to containers and packaging other than expanding the use of recycled PET resin.

As part of the transition plan towards Nature Positive, we have activities such as supporting certification acquisition at Sri Lankan tea plantations, developing and implementing of Regenerative Tea Scorecard for regenerative agriculture, and conducting joint research with NARO at Mariko Vineyard, which includes carbon fixation. Additionally, we are considering the full-scale implementation of regenerative agriculture and expanding efforts to other raw agricultural products such as soybeans, hops, and barley, beyond the tea leaves and wine grapes we have already addressed. We anticipate that these activities will require associated research and deployment costs.

The main targets for the reduction of Scope 3 emissions are containers and packaging and agricultural raw materials. We envisage that regenerative agriculture will be a key adaptation and mitigation measure for climate change related to agricultural raw materials.



Investment Plans and Financing Plans (partial)

	Investment plans	Financing plans
Scope 1+2 GHG emissions reduction	- GHG emissions will be reduced on a profit-and-loss neutral basis by balancing energy cost reductions achieved through energy savings with transition costs (e.g., project CAPEX and cost premiums for renewable energy) - To promote environmental investments primarily aimed at reducing GHG emissions, Net Present Value (NPV) is used as an indicator, and Internal Carbon Pricing (JPY 7,000 per t-CO₂) has been introduced as a method for investment decision-making - Strategies for 2030 and beyond will be considered on the assumption that infrastructure development and technological innovation will progress	- In 2020, we issued a green bond (10 billion yen) to finance the procurement of recycled PET resin and the installation of a heat pump system at plants - In December 2022, we became the first food and beverage company in Japan to develop a framework that complies with transition finance-related guidelines, etc., and to have obtained a second party opinion from an independent third party in order to promote transition initiatives on the finance side - In January 2023, we became the first food and beverage company in Japan to raise funds with a transition-linked loan (50 billion yen), which is aimed at financing energy conservation and renewable energy-related projects that contribute to reducing Scope 1 and Scope 2 emissions
Scope 3 GHG emissions reduction	Based on estimates for measures that are currently feasible, the financial impact is estimated to be around 2 billion yen by 2030.	
Expanded use of recycled PET resin	Manufacturing facilities for small PET bottles at the Kirin Beverage Shonan Plant will be enhanced through an investment of approximately 10 billion yen.	

Transition Plans

Transition Plan to A Decarbonized Society

In July 2022, the Kirin Group became the first food company in the world to obtain "SBT Net-Zero certification" from the Science Based Targets initiative (SBTi). In response to the transformation of the Group's business portfolio, changes in the external environment, and revisions to SBTi's Net-Zero Standard, we re-obtained our "SBT Net-Zero certification" in March 2026 and newly established a "FLAG (Forest, Land and Agriculture) target" focused on reducing emissions from deforestation and land use change. We are advancing GHG emission reductions based on a roadmap aligned with our "SBT 1.5° C" target for 2030 and our re-obtained "SBT Net-Zero" target for 2050. At the same time, we have set a gross target of a 90% reduction from the base year by 2050, and we will consider utilizing carbon credits for the remaining 10% based on the concept of residual neutralization. In preparation for this, in March 2025, the Kirin Group established the "Kirin Group Carbon Credit Policy"*1 and created a policy and checklist to enable each of the Group's operating companies to autonomously confirm and implement values and quality standards that emphasize impacts on biodiversity and co-benefits for local communities when utilizing carbon credits.

*1 https://www.kirinholdings.com/en/sustainability/materiality/env/e_policy/

Establishment of FLAG Target

Under the newly established FLAG target, we aim to achieve a 33% reduction in GHG emissions by 2030 compared to a 2019 baseline. Across total Scope 1-3 emissions, covering both FLAG and non-

FLAG categories, we will continue our efforts toward achieving Net-Zero by 2050.

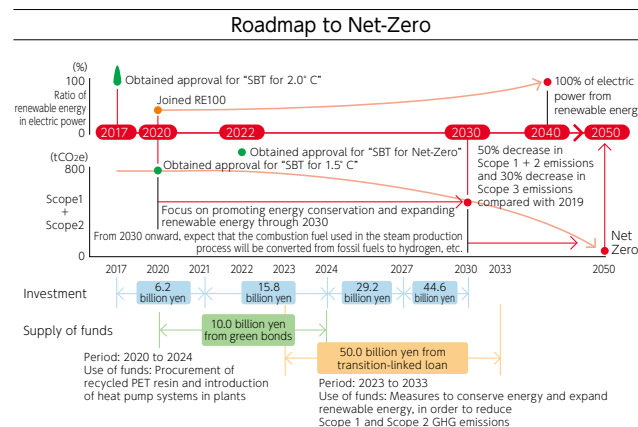
No-Deforestation Commitment

Companies that set FLAG targets are required to set and publicly disclose the no-deforestation commitment. We are committed to achieving zero deforestation for key deforestation-related commodities, with a target date of December 26, 2025. In the preamble to the "Kirin Group Action Plan for the Sustainable Use of Biological Resources"*2, the Kirin Group states: "In order to achieve both global and business sustainability in all raw materials we handle, we will utilize the inherent regenerative power of the natural environment, including land and sea areas, and the balance of ecosystems, work to conserve and enhance them, and aim for sustainable use of biological resources that does not involve deforestation."

*2 https://www.kirinholdings.com/en/sustainability/materiality/env/e_policy/

Our approach of no-deforestation is implemented through the following process. Please refer to the table below right for further details.

1. Identification of high-risk commodities
 2. Verification that nearly all raw materials in the Group's supply chain are produced on land that has not been deforested since the cut-off date (2020)
 3. Establishment and operation of effective systems to continuously manage production and procurement in order to avoid deforestation
- The Kirin Group has identified coffee, palm oil, and paper as high-risk commodities and is strengthening the establishment and operation of effective systems to continuously manage production and procurement in order to eliminate deforestation. Regarding current progress, for palm oil and coffee, we are conducting more detailed risk and opportunity assessments based on the LEAP approach advocated by TNFD (Details (→P.24-25)). For paper containers and packaging, we have adopted FSC-certified paper, a forest certification system, and display the certification logo on many of our products. While there are technical challenges related to traceability and monitoring in establishing systems to continuously manage production and procurement without deforestation, we will continue to strengthen our efforts going forward.



Addressing Deforestation

	Requirements to be Implemented	Kirin Group's Response
1	Identification of high-risk commodities	Among the commodities we produce, coffee, palm oil, and paper have been identified as potentially high-risk. We are strengthening the establishment and operation of effective systems to continuously manage deforestation-free procurement.
2	Verification that nearly all raw materials in the company's supply chain are produced on land that has not been deforested after the cut-off date (2020)	Through the Kirin Supply Chain Environmental Program launched in 2025, we confirm through supplier interviews that no deforestation has occurred after the cut-off date for high-risk commodities. We also monitor reports received through our hotline to verify that no related risks have materialized and will continue this effort going forward.
3	Establishment and operation of effective systems to continuously manage production and procurement in order to prevent deforestation	For items A-C below, we have developed action plans and identified key challenges for establishing deforestation-free response mechanisms.
3-A	Establishment of systems to prevent and eliminate the occurrence of deforestation in advance	Revised the "Kirin Group Action Plan for the Sustainable Use of Biological Resources"
3-B	Establishment of systems to ensure products traceability and monitor deforestation across operations and supply chains	Initiated the development of an implementation plan to establish a system covering the following steps: Risk Analysis → Strategy Development → Due Diligence Implementation • Identification of targets in the supply chain • Risk analysis (including LEAP analysis and identification of potential risks through literature review) • Formulation of response strategies • Correction and improvement of identified issues
3-C	Establishment of a management framework to ensure prompt and effective responses to identified commitment violations	A management structure has been established, and procurement-related risks are centrally managed through the Group's risk management system. In the event that such risks materialize, the relevant departments collaborate promptly under the direction of the executive officer responsible for risk management to share information, implement countermeasures, prevent recurrence, and deploy measures across other departments to ensure appropriate response. (Reference: Policy on Sustainable Procurement https://www.kirinholdings.com/en/sustainability/materiality/supplychain/csr/)

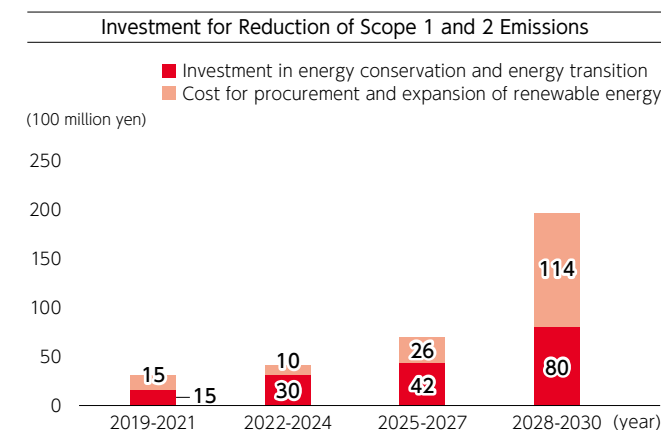
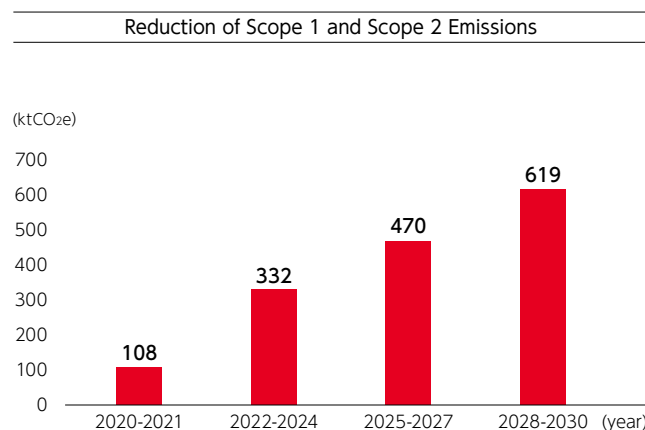
Transition Plans

Transition Plan to A Decarbonized Society

Scope 1+2 Emissions Reduction

Our roadmap for reducing Scope 1 and 2 emissions by 2030, as well as our investment plans, is shown in the figure on the right bottom. We will take a three-pronged approach to reducing Scope 1 and Scope 2 emissions, namely: "promotion of energy conservation," "expansion of renewable energy," and "energy transition," and will also develop ways to optimize production and logistics, etc. Our actions in each area are on the right.

	Action
Promotion of energy conservation	● Kirin Brewery introduced heat pump systems at the wastewater treatment facilities of six plants in 2019 ● At Shinshu Beverage, we reuse waste heat, which is difficult to use directly in rinsing processes for bottles and caps, through a heat pump unit ● At the Kirin Brewery Okayama Plant, we reuse waste heat in hot water sterilization equipment for cans and heat in the air
Expansion of renewable energy	● At Kirin Brewery, we have installed large-scale solar power generation facilities at all nine plants (PPA model at eight plants excluding the Yokohama Brewery) ● Mercian introduced solar power generation using a PPA model at the Fujisawa Plant ● Kyowa Kirin introduced a large-scale solar power generation facility (1.47MW) using a PPA model at the Ube Plant ● Kyowa Hakko Bio introduced solar power generation using a PPA model at the Hofu Plant ● Lion acquired carbon neutral certification in Australia, as well as Toitū carbon zero certification in New Zealand ● Lion installed solar power generation facilities at Castlemaine Perkins Brewery and Little Creatures Geelong Brewery
Energy transition	● Completed the transition of fuel to natural gas at all Kirin Brewery and Kirin Beverage plants, as well as the Mercian Yatsushiro plant ● Lion installed an electric boiler at a brewery in New Zealand. The company plans to expand its use of electric power generated from renewable energy ● Heat pump boiler operations have commenced at the New Belgium Brewing brewery in 2025 ● At Kirin Brewery Hokkaido Chitose Plant, a demonstration project to transition energy from fossil fuels to green hydrogen will commence in June 2026



* Represents the main impacts of additional measures required to address to transition risks and achieve the Environmental Vision

* Capital investment projects for the reduction of Scope 1 and 2 emissions are aggregated in the Group roadmap and incorporated into the Group financial model based on the assumption of implementation

* Costs related the reduction of Scope 1 and 2 emissions are estimated by accumulating feasible deployment volumes required to achieve the targets and have been approved for implementation by the Group Executive Committee

Transition Plans

Transition Plan to A Decarbonized Society

Scope 3 Emissions Reductions

Of the categories in the “Scope 3 Standard” of the GHG Protocol, Category 1 (purchased goods and services) emissions from “containers and packaging” and “agricultural raw materials” account for approximately 70% of the Kirin Group’s Scope 3 emissions. Category 4 (upstream transportation and distribution) emissions from “transportation” make up approximately 10% of the total.

We will continue working to reduce Scope 3 emissions through the two approaches of the “reduction of our own independent emissions” and “encouragement of reduction at suppliers.” Transportation and containers and packaging are the targets for reducing our own independent emissions. Using the technologies of Institute for Package Innovation, which is the largest research institute in the world owned by a consumer goods manufacturer, to reduce GHG emissions from containers and packaging materials. We encourage suppliers to reduce GHG emissions from the production of containers and packaging and their materials, and GHG emissions during the production of agricultural raw materials. We have determined that regenerative agriculture is effective way to reduce GHG emissions from agricultural products. Our key actions are shown in the bottom table.

To address the challenges related to Scope 3 emissions, we have requested all suppliers to comply with the “Kirin Group Sustainable Supplier Code,” which includes measures to tackle

climate change. Additionally, in April 2024, we launched the “Supply Chain Environmental Program.” This initiative aims to enhance collaboration with high GHG-emitting business partners and reduce Scope 3 emission through three main pillars: mutual disclosure of actual GHG emission data, setting and supporting GHG emission reduction targets at the SBT level, and collaboration on GHG emission reduction efforts. This initiative is expected to contribute to a 10% reduction in Scope 3 emissions, which accounts for one-third of our medium-term goal to reduce group-wide GHG Scope 3 emissions by 30% by 2030 compared to 2019. Combined with other measures targeting Scope 3 emission categories 1, 4, and 9, we plan to achieve a total reduction of 30%.

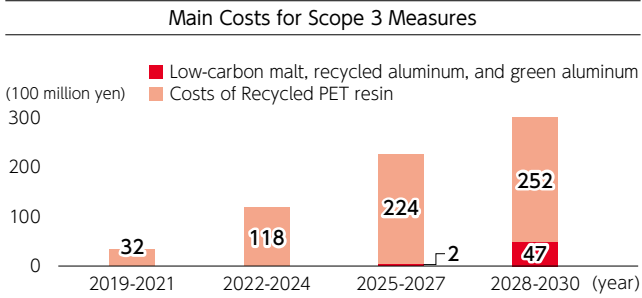
Lion is a member of the Australian Climate Leaders Coalition, a group of Australian company CEOs. Within this group, we have confirmed that using a system where actual GHG emission data is pooled by a third-party organization without mutual disclosure among value chain companies such as suppliers and retailers, allows for a more accurate understanding of Scope 3 emissions. This approach serves as a starting point for collaboration among stakeholders to collaborate on how to reduce emissions throughout the value chain, raising Scope 3 reduction targets and leading to more effective actions. We use the calculation of the carbon footprint (CFP) per product to visualize and set targets for GHG

reduction across the entire supply chain. These results are featured in the publication “Scope 3 Roadmap” by the Australian Climate Leaders Coalition.

As a cross-industry initiative, we are working through The Consumer Goods Forum (CGF) in collaboration with retailers, food companies, and raw material suppliers on initiatives such as building a decarbonization support platform for suppliers. Through the “Working Group on Addressing Social Issues,” a consortium of five beverage companies including Kirin Beverage, we have begun exploring the development of a new scheme that would enable the purchase of non-fossil certificates for surplus electricity generated by solar panels installed on supplier facilities and not consumed on-site.

Scope 3 Emissions Reduction Actions Led by Our Company in Collaboration with External Partners

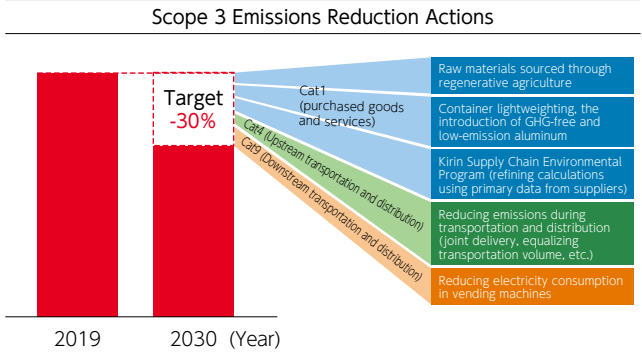
	Action
Containers and packaging (about 30% of Scope 3 emissions)	● In addition to reducing the weight of cans, we will also increase the rate of CAN to CAN recycling, reducing the use of virgin materials and increasing the rate of use of recycled materials as much as possible ● For aluminum cans, considering the practical application of GHG-free aluminum refined with renewable energy and low-emission aluminum with a higher recycling rate, we are exploring the introduction of carbon-free aluminum cans ● Four beer manufacturers have jointly adopted “EcoEnd” can lids with a higher recycled aluminum ratio ● For PET bottles, in order to increase the PET to PET horizontal recycling rate, we will increase the use of mechanically and chemically recycled materials, while also reducing GHG emissions from the manufacturing process ● We will contribute to the reduction of GHG emissions from transportation by reducing the weight of containers and packaging ● Scope 3 emission calculations will be refined by accurately capturing actual GHG emission reduction amounts through the Supply Chain Environmental Program ● Scope 3 emissions reduction efforts will be strengthened through participation in the Australian Climate Leaders Coalition
Agricultural raw materials (about 30% of Scope 3 emissions)	● Joint research has been initiated on the accurate measurement of GHG emissions from soil at Mariko Vineyard and carbon fixation using biochar from pruning debris ● New Belgium Brewing (U.S.) has begun procuring barley through regenerative agriculture
Transportation (about 10% of Scope 3 emissions)	● Production and logistics will be optimized (including the use of AI and on-site warehouses), transportation volumes will be leveled, joint deliveries will be conducted, and freight will be shifted to modal transportation ● Emissions during maritime transportation will be reduced by importing wine in large-capacity bags ● Conversion to fuel cell trucks and EV trucks is being considered



* Represents the main impacts of additional measures required to address transition risks and achieve the Environmental Vision

* For the Scope 3 measures, feasible deployment volumes of key initiatives were estimated using a bottom-up approach and approved for implementation by the Group Executive Committee

* For recycled PET resin, estimates are based on past procurement price and assume that the targets will be maintained from 2027 onward



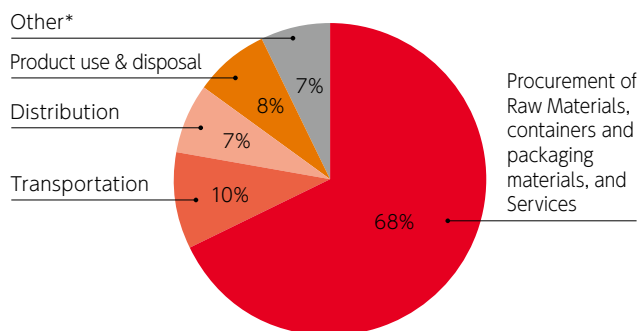
Transition Plans

Transition Plan to A Decarbonized Society

GHG Emission Reductions from Agricultural Raw Materials

For upstream suppliers (farmers), it is important to reduce GHG emissions from the cultivation process of agricultural raw materials through regenerative agriculture and to decarbonize the energy needed for transportation and storage. For raw material processing companies, reductions can be achieved through process improvements such as energy conservation, the use of renewable energy, and energy conversions. As a product manufacturer, reaching upstream suppliers can sometimes be challenging. In such cases, procuring certified products that have implemented various GHG reduction measures in these upstream processes can be an effective option. Additionally, implementing food loss countermeasures and recycling at each stage can help reduce GHG emissions associated with waste. Regarding agricultural raw materials, we have positioned Japan's Mariko Vineyard and Sri Lankan tea plantations as model cases to accumulate knowledge on climate change mitigation and adaptation through regenerative agriculture. The insights gained will be applied to other agricultural products and production areas. Furthermore, we have started verifying a technology for long-term evaluation of soil sequestration using satellite data. In this verification, we aim to establish a technology to measure carbon sequestration without soil sampling or measurements in the production area fields, using barley fields with high procurement volumes as test sites.

Proportion of Scope 3 Emissions



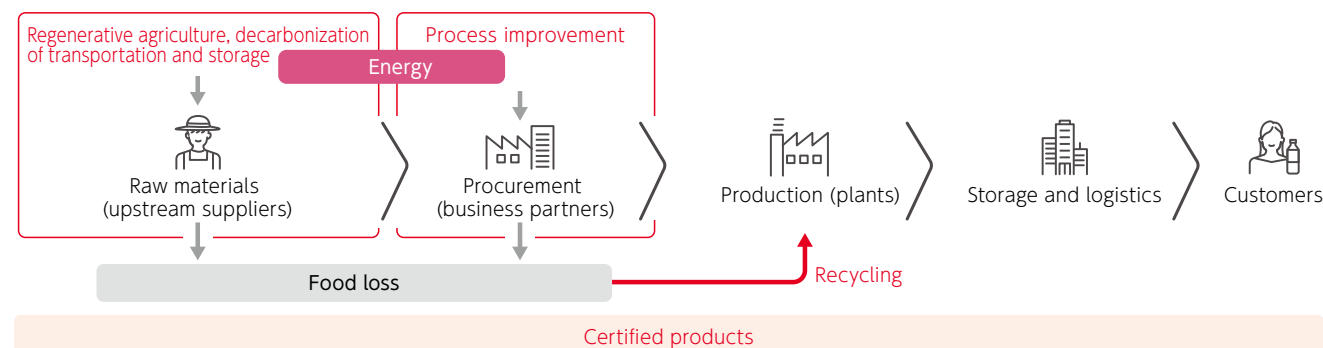
* Emissions other than the above (emissions from the manufacture and transportation of capital goods, fuel, etc., waste from business operations, travel and commuting of employees, etc.)

GHG Emission Reductions from Containers and Packaging

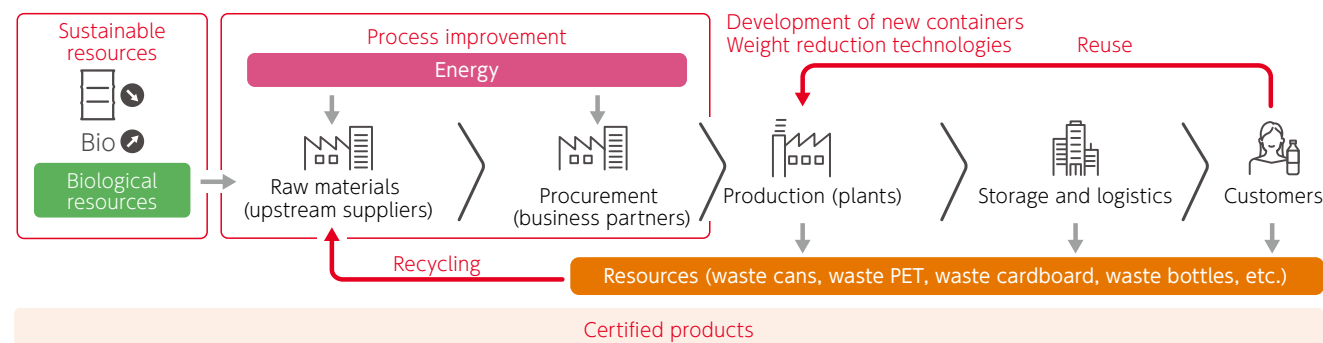
In reducing GHG emissions from containers and packaging, recycling and reuse as much as possible is the priority. For containers and packaging that are difficult to recycle, selecting paper and biomass resins with assured sustainability is crucial. Upstream suppliers (of materials) and processing companies are expected to implement process improvements for GHG reductions through energy conservation, the use of renewable energy, and energy transitions, as well as decarbonizing the energy needed for transportation and storage. As a product manufacturer like the Kirin Group, procuring certified products that have implemented various GHG reduction measures in these upstream processes can be an effective option.

Reducing the number of containers and packaging used through the development of new functionalities, new materials, and lightweight packaging is essential when advancing energy reduction and renewable energy use in recycling, processing, and transportation throughout the supply chain. Recycling used resources and reusing bottles can also help reduce GHG emissions associated with waste. Within the "Working Group on Addressing Social Issues," which consists of five beverage companies including Kirin Beverage, the lightweighting of PET bottles and caps, and the more efficient use of packaging materials are being examined as key themes. Through cross-industry collaboration, we will advance discussions and research to address these challenges.

Approach to Reducing GHG Emissions from Agricultural Raw Materials



Approach to Reducing GHG Emissions from Containers and Packaging



Transition Plans

Nature Positive Transition Plan

We will organize our transition to Nature Positive using the AR3T (Avoid, Reduce, Restore & Regenerate, Transform) framework for natural capital proposed by the SBTN (SBTs for Nature).

On March 29, 2024, the Ministry of the Environment, the Ministry of Agriculture, Forestry and Fisheries, the Ministry of Economy, Trade and Industry, and the Ministry of Land, Infrastructure, Transport and Tourism jointly announced the “Transition Strategies toward Nature Positive Economy,” reflecting discussions by the Ministry of the Environment’s “Study Group on Nature Positive Economies,” in which the Kirin Group participated. One of the three points of view presented in this report is the “necessity of transition to Nature Positive business and contribution to the conservation of natural capital and value creation.”

Projects in Sri Lanka and at vineyards in Japan are examples of “Nature Positive through business,” in which we will restore and maintain “secondary nature” through business activities, and we believe that these examples fall under the “contribution to the conservation of natural capital and value creation” in the Ministry of the Environment’s transition strategies.

We have adopted a landscape approach, which is “a method for sustainably solving issues based on a comprehensive treatment of various human activities and the natural environment in raw material production areas,” to address issues related to “indigenous peoples, local communities, and affected stakeholders,” which the TNFD requires to be disclosed. In Sri Lankan plantations, we launched the “KIRIN Nature School in Sri Lanka” in November 2025, providing classes on the theme of coexistence with nature for elementary and junior high school students who are the children of plantation workers. At vineyards in Japan, we engage with local communities and the next generation. Lion provides employee training programs that teach the traditional knowledge of Aboriginal culture and nature. Lion also promotes coexistence and positive impacts in local communities by expanding business transactions

and creating employment with indigenous-owned businesses. In Blackmores’ health science business, the role of indigenous communities in biodiversity conservation has been recognized while exploring nature-based solutions (NbS) to preserve valuable medicinal herbs. Through events such as bushwalks that teach the traditional use of plants as medicine, employees have opportunities to engage more deeply with members of indigenous communities.

Moving forward, we will consider sharing knowledge within the Group and expanding applicable areas through supplier collaboration in the “Supply Chain Environmental Program” that began in 2024.

In 2025, we participated in the TNFD Nature Transition Plan Pilot Test and developed a nature transition plan at New Belgium Brewing’s Fort Collins Brewery. Through this program, in addition to our ongoing efforts to reduce water use intensity at the brewery, we identified the need for a landscape approach that involves collaboration with stakeholders across the broader watershed and strengthening the resilience of the watershed itself (Details [→P.27](#)). Building on the insight gained from this program, we will examine the development of a nature transition plan that comprehensively incorporates water risk assessments, the evaluation of nature-related risks and opportunities, deforestation prevention measures, and other relevant factors.

	Actions
Avoid	● Expand the use of FSC-certified paper. ● The purchase of RSPO-certified palm oil (Mass Balance model) and utilization of RSPO credits (Book & Claim model) for primary and secondary palm oil raw materials. ● Continue development of applications for bag-type culture vessel technology that enables mass plant propagation with minimal water. ● Identify priority sites for water risk using the latest global tools and local information, and work to avoid and mitigate water risk.
Reduce	● Support Rainforest Alliance certification acquisition and develop and implement the Regenerative Tea Scorecard for tea plantations in Sri Lanka and coffee plantations in Vietnam. ● Continue supporting Rainforest Alliance certification acquisition for coffee plantations in Vietnam. ● Reduce food loss and waste. ● Introduce, continue, and expand advanced water treatment using reverse osmosis membranes at breweries in water-stressed areas in Australia to achieve significant water savings.
Restore & Regenerate	● Utilize derelict farmland as Japan Wine vineyards. Restore ecosystems through hedgerow-style cultivation. ● Conserve water sources within tea plantations in Sri Lanka and educate local residents. ● Conduct water source conservation activities at production sites in Japan. ● Procure certified regenerative agriculture raw materials for Stone & Wood Brewery in Australia.
Transform	● Participate in TNFD, SBTs for Nature and Nature Positive Initiative to develop guidance on natural capital financial disclosures and target-setting frameworks. ● Participated in the TNFD Nature Transition Plan Pilot Program and developed a nature transition plan at New Belgium Brewing’s Fort Collins Brewery ● Lion and Blackmores declare themselves as TNFD adapters in Australia. ● Contribute to the expansion of the supply of FSC-certified paper by establishing a consortium for sustainable paper use with other companies and NGOs. ● Establish the Rainforest Alliance Consortium and contribute to raising awareness of sustainable agriculture.

Transition Plans

Transition Plan for a Circular Economy

Business Value and Risk Awareness from the Circular Economy

For the Kirin Group, containers and packaging are essential for delivering products to customers. However, major containers and packaging materials used in Japan, such as PET, aluminum, and glass bottles, depend heavily on imports, and a linear consumption structure based on virgin resources poses medium- to long-term business risks, including resource depletion and geopolitical risks. Using Kirin Group scenarios and time horizons, we analyzed the potential impact on containers and packaging within our business. Under Kirin Group Scenario 1 (Sustainable Scenario), we envision a society with a strong awareness of natural capital conservation, where companies and governments strengthen their environmental efforts and consumer awareness and expectations regarding environmental issues are also high. In such a scenario, we believe the impact on our business would be significant. On the other hand, under Scenarios 2 (Middle Degradation) and 3 (High Degradation & Climate Change Progression), while risks to the stable supply of container and packaging materials due to resource depletion and natural disasters are anticipated, we envision a society in which the transition to a Circular Economy progresses slowly and conditions remain largely unchanged from the present, and therefore the impact on our business is expected to be limited.

Based on the results of the above analysis, we are considering a Circular Economy transition plan primarily under Kirin Group Scenario 1. Under the Scenario, reducing GHG emissions in the production of containers and packaging and their raw materials will be essential. While falling behind in environmental initiatives could lead to a decline in brand value, containers and brands aligned with the Circular Economy provide opportunities for market expansion. Therefore, we recognize the transition to a Circular Economy as a critical issue, enabling us to simultaneously address environmental challenges and create business value. For this reason, starting from reducing the volume of containers and packaging (Reduce) and incorporating returnable bottles and refillable products (Reuse) as well as the use of recycled and biomass materials (Recycle/Renewable), we aim to realize a “a society that circulates containers and packaging in a sustainable way,” as stated in the Kirin Group Environmental Vision 2050.

Our Efforts on Containers and Packaging

The primary containers and packaging materials used by the Kirin Group are aluminum cans, plastics (primarily PET bottles), glass bottles, and corrugated cardboard boxes. In Japan, well-established collection and recycling systems exist for aluminum, glass, and cardboard. For beer bottles, we have long maintained a bottle reuse system.

On the other hand, for beverage PET bottles and other plastics, collection and recycling rates vary depending on the region and material, and their leakage into the environment and the resulting impacts on natural capital have become a growing concern.

With this in mind, we established the Kirin Group Plastic Policy in 2019 and have promoted initiatives focused on reducing plastic use and the advancing bottle-to-bottle recycling of PET bottles, particularly in the domestic food business where plastic usage is high.

Circular Economy Transition Plan for Containers and Packaging with a View to the 2030s

The Kirin Group has formulated “Guidelines for Environmentally Considerate Packaging and Container Design,” which incorporate elements of international standards related to environmental

considerations for containers and packaging, such as ISO 18602. Based on these guidelines, we have established and operated internal standards that emphasize minimizing resource use and selecting materials with recyclability in mind from the design stage.

Specifically, for Reduce, our key initiatives include expanding label-free products and reducing the weight of containers. For Recycle, a key pillar is the development of bottle-to-bottle recycling schemes in collaboration with reverse logistics operators.

For domestic beverage PET bottles, we have set a target of a 50% recycled resin ratio by 2027, and as of the end of 2025, we have reached 42%. This progress is the result of efforts to improve bottle-to-bottle recycling rates through collaboration across the value chain, covering collection, intermediate processing, and reprocessing, in addition to individual company initiatives to increase recycled resin usage.

Furthermore, to advance circularity, we are implementing not only company-specific initiatives—such as increasing the use of recycled resin and developing sustainable packaging—but also broader efforts to build enabling systems for a Circular Economy. These include industry-wide collaboration on collection and recycling, as well as policy advocacy through industry associations.

	Action
Reduce	● Utilize the “Institute for Package Innovation” to promote weight reduction for containers and packaging. Specifically, we developed and deployed the lightest returnable beer bottle produced in Japan and reduced the weight of cans and PET bottles. ● Promote the reduction of single-use plastics and the switch to alternative materials through container lightweighting and label-free packaging.
Reuse	● We will continue to reuse returnable beer bottles.
Recycle	● We collect old beer bottles and one-way bottles, turn them into cullet, and reuse them as bottles. ● Expand the use of aluminum cans with a high percentage of recycled metal. ● Promote the separate collection of empty containers at vending machines. As a member of the Aluminum Can Recycling Association, we conduct awareness campaigns to improve the separate collection rate of aluminum cans and the can-to-can recycling rate in collaboration with aluminum can manufacturers, rolling mill manufacturers, and other related companies. ● Lion has developed a “Sustainable Packaging Strategy,” and will assume key roles such as collection coordinator in states where Container Deposit Schemes are in place in Australia. ● Based on “Kirin Group Plastic Policy” established in 2019, our medium-term target is to achieve a rate of recycled resin use in 50% of PET bottles in Japan by 2027. ● In terms of “R100 PET bottles,” we will gradually expand the adoption of products that use 100% recycled PET resin from mechanical recycling, the current mainstream method. ● We actively promote “bottle-to-bottle” horizontal recycling, in which used PET bottles are collected and recycled into new PET bottles. ● Engage in chemical recycling initiatives using non-food grade PET materials.
Renewable	● Replaced single-use plastic cups with paper cups made from FSC-certified paper.

Transition Plans

Transition Plan for a Circular Economy

Recycled resin procurement costs and the R&D expenses required to implement these initiatives are estimated to result in a financial impact of 7.45 billion yen per year as of the end of 2025. Regarding specific indicators for 2028 and beyond, we are currently examining them in light of the expansion of our business portfolio and the increasing diversification of materials, and we plan to progressively refine our Circular Economy transition plan going forward.

Food Loss and Waste

We recognize food loss and waste as a critical issue in advancing a Nature Positive outcome as well as in the transition to a Circular Economy. We are working to reduce product waste by improving demand forecasting, while surplus inventory that is unavoidably generated is redistributed through donations to municipalities and food banks. By-products from the production process, such as spent grain, are continuously utilized as animal feed and compost. Furthermore, we are promoting product innovation that leverages ingredients previously discarded, thereby enhancing resource efficiency while creating additional value.

Risk and Impact Management

In the section on governance, we have described our measures to address significant physical and transitional risks related to climate change detected in scenario analysis. Senior management deploys mitigation and adaptation strategies and manages targets under the supervision of the Board. The same applies to overall sustainability-related risks, including the degree of dependence and impact on natural capital and the creation of a Circular Economy. In this section, we describe our monitoring system for important risks and our response to the acute risks posed by climate change.

Risk Management System

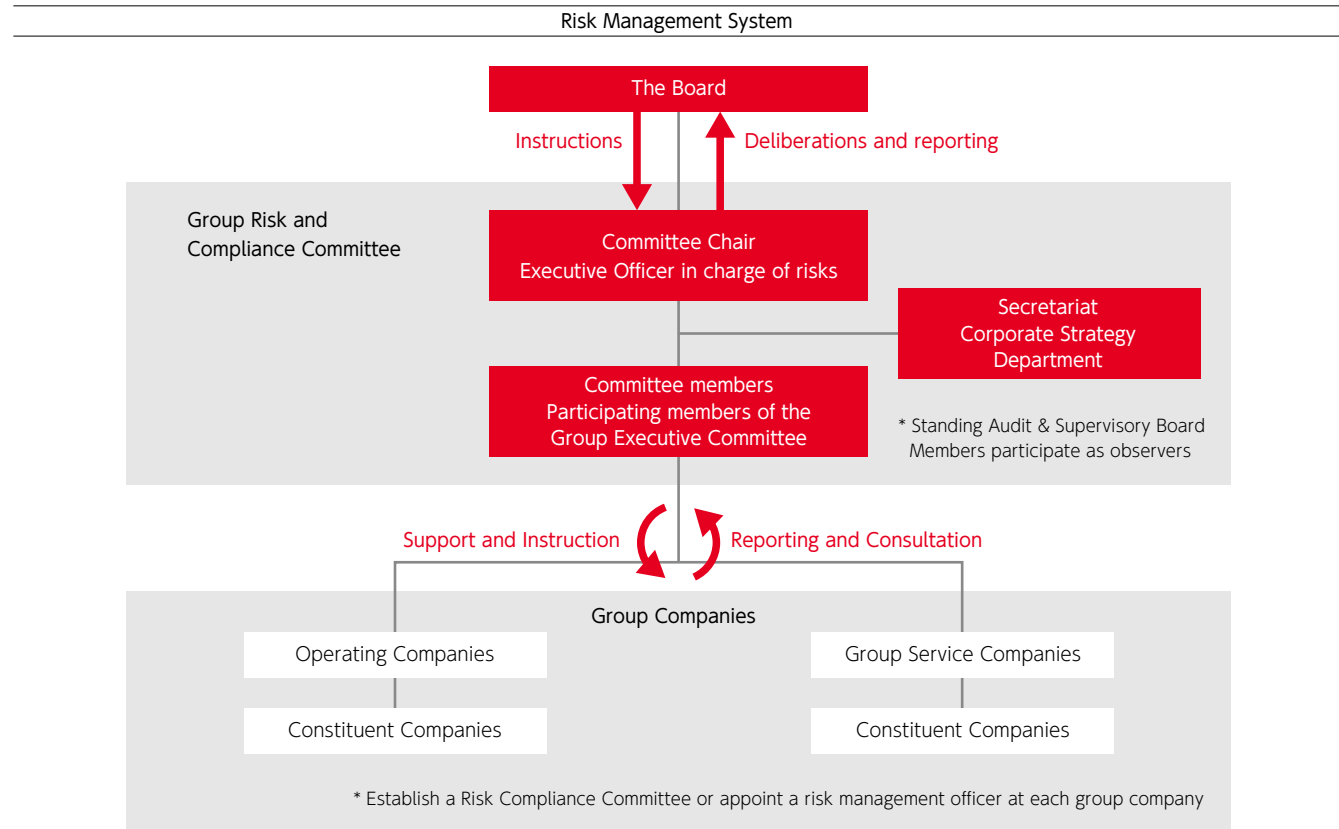
The Kirin Group has established the "Group Risk and Compliance Committee," which consists of officers at the level of senior executive officer or higher from Kirin Holdings and is chaired by the executive officer in charge of risk management. The committee meets in principle twice a year. This committee oversees all aspects of risk management activities, including the collection of information related to risk, the formulation of group risk policies, risk mitigation initiatives, information sharing at times of crisis and consideration of countermeasures, and instructions and support for group companies. Risks*¹ and opportunities related to sustainability include environmental issues such as climate change, natural capital, and the Circular Economy; social issues such as human rights*², local communities, indigenous peoples, small-scale farmers, and gender; and the mutual relationships among such issues and regulatory responses (under our risk management system, "opportunities" are included in the management of "risks"). The Board oversees the effectiveness of risk management through deliberations and reports on important risks for the Group.

Regarding the process of determining the Group's important risks, based on the Kirin Group's risk management policy established each fiscal year, group companies consider and identify risks to their strategies and business operations, as well as risks that could develop into major crises. The identified important risks are reported to the Board of Directors as necessary. Kirin Holdings aggregates these business-specific risks and examines risks common to the entire group*³.

*1 Please see "Commitment and Performance (→P.13-14)" for details concerning the identification of materiality for risks and opportunities related to environmental issues, including climate change.

*2 The Kirin Group revised the "Kirin Group Human Rights Policy" on November 8, 2023, in order to advance our human rights initiatives toward global, high-level industry standards.
https://www.kirinholdings.com/en/sustainability/materiality/human_rights/01/

*3 Details of our "risk management system" are disclosed below.
https://www.kirinholdings.com/en/purpose/governance/risk_management/



Risk and Impact Management

Management of Risks Related to Sustainability

Sustainability-related risks include torrential rains, floods, droughts, and wildfires, which are physical and acute risks related to climate change, and which are becoming more frequent and severe. When such climate disasters occur, the Group or the relevant company's Risk and Compliance Committee discusses the matter, and countermeasures are promptly implemented. When we expect the impact to be significant, we respond based on business continuity plans (BCPs) adopting all hazards approach^{*4}. The Board of Kirin Holdings receives reports on the status of crises expected to have a significant impact as appropriate and issues necessary instructions. After a response to an individual crisis has been completed, we review the risks involved and the progress of measures to respond, and share our experience within the Group in the form of revisions to response manuals and BCPs, contributing to a sustained strengthening of management resilience.

When New Belgium Brewing's Asheville Brewery suffered flood damage in 2024, we responded in accordance with our BCP, ensuring employee safety, confirming the extent of damage, and implementing phased resumption of operations, which enabled early recovery. This incident also prompted us to re-evaluate water risk assessments at our global production sites in 2025. Going forward, we will prioritize strengthening risk management at sites identified through this assessment (Details on water risk assessment for our own production sites (→P.23)).

^{*4} All hazards approach: A business continuity plan that focuses on the loss of management resources due to inter-correlated hazards such as employee and equipment damage or temporary suspension of headquarters functions, rather than approaching each individual crisis event.

Improving Risk Response Capabilities

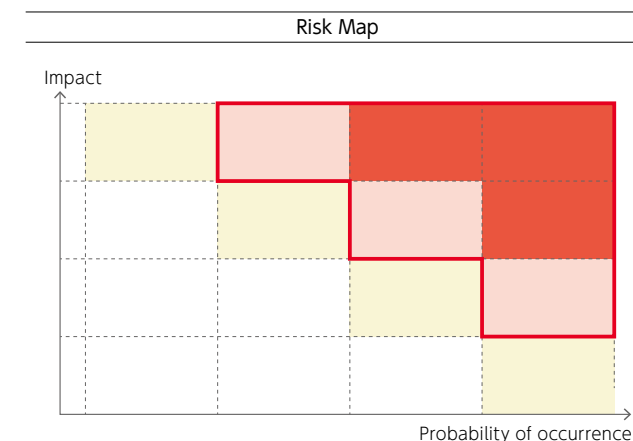
For physical and transition risks such as climate change, which will have an extremely large impact on our businesses if they occur, even though the probability of occurrence is uncertain, we have adopted an approach to identify and examine important risks by setting scenarios and conducting analysis and assessment. In 2025, we updated our overall climate scenarios based on the latest information sources and developed new nature-related scenarios, enabling us to assess risks and opportunities based on integrated climate and nature scenarios. In scenario analysis, we utilize various research papers and science-based risk assessment tools such as Aqeduct.

Through this integrated scenario analysis, we identify significant risks and opportunities across the Group's entire value chain. For specific themes such as risks related to raw material procurement and water resources, we conduct assessments by combining the TNFD recommendations and SBTN methodologies. This integrated scenario analysis is reviewed at least once a year, and we assess whether updates are required in light of the impact of uncertainties, conducting detailed analysis as needed.

The Group Environmental Meeting and the Group CSV Committee share and discuss risks and opportunities identified through these processes, which are then submitted and reported to the Board and shared with the Group Risk and Compliance Committee Secretariat, which manages them together with other risks. Additionally, we share internal cases of sustainability-related risks, such as responses to climate disasters, within the Group in order to strengthen resilience across the Group as a whole.

Impact Measurement

The Kirin Group measures the impact of important risks based on their financial impact and probability of occurrence. We manage these risks in a unified manner on a risk map, and take measures to address high-impact risks by the Board's monitoring.



We unify important risks for the Group on a risk map, and review their importance and countermeasures. The Board of Directors also monitors the most important risks, which are placed within the red frame .

Significant Risks and Opportunities

As described in the Strategy section, in 2025 we developed new integrated climate and nature scenarios and re-evaluated risks and opportunities across the Kirin Group's direct operations and entire value chain (Details (→P.20-21)). Based on our analysis and assessment of sustainability-related risks—considering the interlinkages among climate change, natural capital, the Circular Economy, and social issues, and incorporating scenario analysis—our significant risks and opportunities are summarized in the following

tables. Significant physical risks identified include major agricultural raw materials and water-related risks that are highly relevant to businesses ranging from food to pharmaceutical sectors. Transition risks identified include environmental regulations such as energy and carbon pricing, as well as risks related to market changes. As systemic risks, we have identified risks of ecosystem degradation associated with land use and the release of pharmaceuticals into the environment. Significant opportunities have also been identified

in key value creation areas of our business, including market and product/service opportunities in the pharmaceuticals and health science sector that can address social issues caused by climate change such as infectious diseases and heatstroke, as well as in the product, service, and R&D that contribute to decarbonization and nature restoration. We are developing response strategies based on the expected timing and potential financial impacts of materialization of each identified risk and opportunity.

Colored cells: Particularly significant risks and opportunities with a rating of 20 points or higher

Risk and Opportunity	Classification	Category	Significant Risks and Opportunities	Impacts	Risk Emergence Period*			Risk Rating by 2035 Scenario			Response Strategy
					S	M	L	Scenario 1 (Sustainable)	Scenario 2 (Middle Degradation)	Scenario 3 (High Degradation & Climate Change Progression)	
Physical risk	Chronic	Climate change, Biological resources, Water resources	Impact of climate change and nature loss on agricultural products	- Procurement costs due to decline in yields of agricultural products (Sustainable Scenario: 0.9 billion yen to 2.6 billion yen, Middle Degradation Scenario: 1.3 billion yen to 3.1 billion yen, High Degradation & Climate Change Progression Scenario: 3.1 billion yen to 12.1 billion yen) - Decline in land productivity due to soil degradation - Decline in yields due to reduction in pollinators				15	20	25	- Support for farms to acquire certification for sustainable agriculture (adaptation measures) - Development of heat and drought tolerance technologies for climate change adaptation - Accumulation of mass plant propagation technologies - Development of alternative raw materials and new production technologies (adaptation measures) - Introduction of perennial grains into annual crop production systems (adaptation measures) - GHG emission reduction (mitigation measures) - Risk assessment of water and land use based on the SBTN methodology
		Water resources	Impact of water pollution on production	Increased capital investment in water treatment				9	12	16	- Understanding the actual situation through risk assessment - Advanced water saving technologies (adaptation measures) - Minimization of wastewater load (mitigation measures)
		Climate change, Biological resources, Water resources, Containers and Packaging	Environmental pollution by improper disposal of used containers	- Negative impact on life in river basins and oceans - Expenses associated with measures to address ocean pollution (2.9 billion yen)				8	12	16	Building a society that recycles plastics
	Acute	Climate change, Water resources	Disruption of operations owing to floods	- Exposure to 200-year disasters (total of 43 locations within the Group: 4.2 billion yen) - Operational shutdown caused by storm surges and flooding - Increase in insurance premiums				15	20	25	- Sharing of knowledge on responses to floods (adaptation measures) - Insurance for floods (adaptation measures) - Addressing flooding at facilities (adaptation measures)
		Climate change, Water resources	Impact on transportation from floods	- Risk of flooding at shipping ports for raw materials - Delays in production and operations due to disruption of transportation routes				10	15	20	- Sharing of knowledge on responding to floods (adaptation measures) - Diversification of suppliers (adaptation measures)
		Climate change, Water resources	Disruption of operations owing to droughts	- Exposure to 10-year disasters (7 high water-stress sites within the Group) - Annual exposure is estimated at 4.57 billion yen under a 1.5°C scenario, 5.49 billion yen under a 2.0°C scenario, and 9.25 billion yen under a 4.0°C scenario				5	10	15	- Advanced water reduction technology (adaptation measures) - Sharing drought response knowledge (adaptation measures) - Water source forest conservation activities at domestic manufacturing sites (mitigation measures)
		Climate change, Biological resources, Water resources	Impact on agricultural products from floods and droughts	- High water stress in most production areas - Increase in natural disasters in production areas				15	20	25	- Responses to water stress in areas producing agricultural raw materials (adaptation measures) - Development of plant heat and drought tolerance technologies for climate change adaptation (adaptation measures) - Prevention of soil runoff in areas producing agricultural raw materials (adaptation measures)
		Climate change, Biological resources	Impact of diseases and air pollution on agricultural products	- Declining quality of agricultural products due to smoke and air pollution - Spread of disease				6	12	20	Research and measures from a long-term perspective (adaptation measures)

Significant Risks and Opportunities

Risk and Opportunity	Classification	Category	Significant Risks and Opportunities	Impacts	Risk Emergence Period*			Risk Rating by 2035 Scenario			Response Strategy
					S	M	L	Scenario 1 (Sustainable)	Scenario 2 (Middle Degradation)	Scenario 3 (High Degradation & Climate Change Progression)	
Transitional risks	Policy	Climate change, Biological resources, Water resources	Financial impact of carbon pricing on energy, agricultural products, and raw material procurement	- Procurement costs due to decline in yields of agricultural products (Sustainable Scenario: 0.9 billion yen to 2.6 billion yen, Middle Degradation Scenario: 1.3 billion yen to 3.1 billion yen, High Degradation & Climate Change Progression Scenario: 3.1 billion yen to 12.1 billion yen) - Financial impact on energy due to carbon pricing (Sustainable Scenario: 91.8 billion yen, Middle Degradation Scenario: 3.8 billion yen, High Degradation & Climate Change Progression Scenario: 3.1 billion yen) - Financial impact on agricultural products due to carbon pricing (Sustainable Scenario: 0.9 billion yen to 4.1 billion yen, Middle Degradation Scenario: 2.2 billion yen to 6.6 billion yen, High Degradation & Climate Change Progression Scenario: 2.2 billion yen to 8.1 billion yen) - Financial impact of packaging material procurement due to carbon pricing (Sustainable Scenario: 43.8 billion yen, Middle Degradation Scenario: 1.1 billion yen, High Degradation & Climate Change Progression Scenario: 0.1 billion yen) - Increase in procurement costs for containers and packaging such as aluminum due to carbon taxes	●	●		25	25	15	- Energy saving/renewable energy/switch of energy source - GHG emission reduction through logistics optimization - GHG emission reduction through lightweight packaging - Increasing the ratio of recycled materials in packaging - GHG emission reduction at the sales stage - Risk mitigation through mass plant propagation technologies - Measures against fertilizer price increases
		Climate change, Biological resources, Water resources, Containers and Packaging	Early replacement of currently held assets for decarbonization	• Early retirement of facilities due to legal restrictions such as bans on plastic packaging		●	●	20	9	4	• Identification of trends in technology and implementation of our roadmap with adaptive updates
		Climate change, Biological resources, Water resources, Containers and Packaging	Cost of regulatory response	• Increase in human resources and cost of response		●	●	25	25	20	- Advancement of data collection and calculation methods - Refinement of data calculation
		Climate change, Biological resources, Water resources	Cost of responding to pollution-related regulations	• Regulations on environmental impact of pharmaceuticals		●	●	16	16	8	• Improvements to environmental management systems
		Biological resources, Water resources	Cost of responding to land use-related regulations	• Future regulatory response for biodiversity net gain (regulations mandating creation of ecosystems exceeding those lost) and other regulations		●	●	15	15	10	• Improvements to environmental management systems
		Climate change, Biological resources, Water resources	Cost of responding to genetic resource-related regulations	• Regulations on access to genetic resources derived from the Convention on Biological Diversity		●	●	25	25	20	As this risk was newly identified during the reporting period, we will further assess and develop appropriate mitigation and response strategies.
		Biological resources	Increase in cost of relocating production and procurement areas due to expansion of protected areas	• Increase in cost for relocating procurement areas due to land use restrictions		●	●	20	15	10	As this risk was newly identified during the reporting period, we will further assess and develop appropriate mitigation and response strategies.
		Biological resources	Environmental and economic incompatibility with rapid agricultural policy transitions	- Chain collapse of agricultural infrastructure caused by extreme bans on agricultural chemicals and fertilizers - Cost of transition to regenerative agriculture and agriculture with lower environmental impact	●	●	●	25	15	10	- Support for training farmers in sustainable agriculture - Appropriate engagement with experts and policymakers
	Markets	Climate change, Containers and Packaging	Social resistance to fossil-derived raw materials	- Decline in market share due to delays in adopting environmentally friendly plastic packaging - Increase in cost for switching to low-carbon packaging materials - Disruption of operations due to difficulty in procuring chemical raw materials and resins	●	●		12	6	2	• Plastic resource recycling
		Climate change, Biological resources, Water resources	Concerns about deforestation	- Dependence on forest-risk commodities - Increase in cost for ensuring compliance and traceability	●	●		15	15	10	- Promotion of sustainable forestry and agriculture - Creation of high-quality forest-based carbon credits - No-Deforestation Commitment
		Climate change, Biological resources, Water resources	Opportunity loss due to ethical consumption	• Decline in market share due to delays in responding to changes in consumer preferences	●	●	●	15	9	6	• Environmentally friendly products
		Climate change	High energy prices	- Surge in natural gas and oil prices due to carbon pricing and supply-demand balance - Energy procurement costs are estimated at 7.63 billion yen under the Sustainable Scenario, 0.27 billion yen under the Middle Degradation Scenario, and 0.12 billion yen under the High Degradation & Climate Change Progression Scenario.		●	●	25	16	12	• Steady implementation of our roadmap to achieve our science-based 1.5°C target

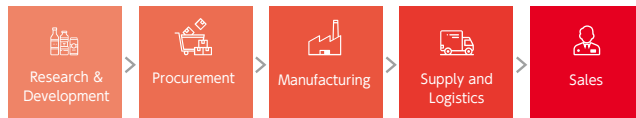
Significant Risks and Opportunities

Risk and Opportunity	Classification	Category	Significant Risks and Opportunities	Impacts	Risk Emergence Period*			Risk Rating by 2035 Scenario			Response Strategy
					S	M	L	Scenario 1 (Sustainable)	Scenario 2 (Middle Degradation)	Scenario 3 (High Degradation & Climate Change Progression)	
Systemic risk	Stability of food and social systems	Biological resources	Reduction in agricultural land and ecosystem damage due to farmland abandonment and excessive use of agricultural chemicals	- Increase in insurance costs related to weather disasters due to decline in ecosystem functions - Degradation of agricultural land ecosystems due to long-term use of agricultural chemicals	●	●	●	10	15	20	- Promoting regenerative agriculture - Ecosystem restoration activities focusing on hedgerow-style cultivation - Enhancing engagement with agricultural production areas
		Biological resources	Ecosystem damage due to leakage of pharmaceuticals	- Decline in pharmaceutical efficacy due to spread of antimicrobial resistance - Spread or leakage of genetically modified organisms used in research and production	●	●	●	10	15	20	As this risk was newly identified during the reporting period, we will further assess and develop appropriate mitigation and response strategies.
Business opportunity	Markets	Climate change, Biological resources	Increasing distribution in infectious diseases caused by global warming	- Concerns related to increases in the number of infections and regions affected - Northward movement of the habitat of the Aedes albopictus	●	●	●	12	20	25	Contribution to health science domain
		Climate change	Increase in heatstroke caused by global warming	The National Institute for Environmental Studies expects the number of excess deaths related to heat to increase between 4 and 10 times under the 4°C scenario	●	●	●	12	20	25	Contribution with products to counter heatstroke
		Climate change, Biological resources, Water resources, Containers and Packaging	Development of new markets and regions through research and development of new pharmaceuticals	- Development of new markets through therapeutics for tropical diseases - Access to new markets due to changes in endemic areas and prevalence rates resulting from changes in temperature patterns	●	●	●	15	25	25	As this risk was newly identified during the reporting period, we will further assess and develop appropriate mitigation and response strategies.
	Products and services	Climate change	Increased expectations for products and services that contribute to decarbonization	- Increasing needs for products that contribute to decarbonization or low-carbon transition - Reduction in transportation volume through concentrated products - Investment in new materials and manufacturing processes	●	●	●	20	12	6	- Provision of decarbonized products - Research and development contributing to climate change mitigation and adaptation
		Biological resources	Increased revenue due to growing demand for products contributing to nature restoration	- Increased sales of certified food products and agricultural products - Increased revenue through participation in tradable permit systems related to biodiversity - Increased revenue through development of new materials derived from plants and microorganisms	●	●	●	25	25	25	- Response to product development contributing to nature restoration and Circular Economy - Strengthening consumer appeal through environmental certification labels
	Resource efficiency	Climate change	Sustainable logistics	- Decline in product supply capabilities - Optimization of logistics networks and introduction of fuel-efficient vehicles and EVs	●	●	●	10	4	4	Reduction in costs from more efficient transportation
		Climate change, Containers and Packaging	Reduction of container and packaging raw materials and stable procurement	- Demands for the 3Rs and reduction in costs from the move to lightweight containers - Reduction of packaging materials - Use of recyclable and reusable materials - Cost reduction through development of plant-based packaging materials	●	●	●	15	12	6	- Reducing the weight of containers and packaging - In-house packaging development capability
	Energy sources	Climate change	Reduction in reliance on fossil fuels, stable procurement of renewable energy, and promotion of energy conservation	- Reduction of energy cost - Improved productivity through efficient manufacturing systems such as green chemistry	●	●	●	25	16	12	- Achievement of an energy mix to achieve net-zero emissions - Introduction of renewable energy without adverse impacts on the environment and local communities
	Resilience	Climate change, Biological resources, Water resources, Containers and Packaging	Strengthening the supply chain	- Ensuring the stability of the procurement of agricultural raw materials and reduction of Scope3 GHG emissions - Enhanced credibility through utilization of certification systems for medicinal plants used as raw materials	●	●	●	25	20	15	Enhancement of engagement
		Biological resources	Enhancement of ecosystem services through crop breeding and advances in cultivation technologies	Development of resilient crop varieties (e.g., hops, barley)	●	●	●	25	5	5	As this risk was newly identified during the reporting period, we will further assess and develop appropriate mitigation and response strategies.
	Capital flows and financing	Climate change, Biological resources, Water resources, Containers and Packaging	Increase and diversification of available subsidies and financing due to strengthened nature-related policies	Bonds and loans linked to water efficiency improvements and environmental performance	●	●	●	10	15	20	As this risk was newly identified during the reporting period, we will further assess and develop appropriate mitigation and response strategies.
	Reputational Capital	Climate change, Biological resources, Water resources, Containers and Packaging	Enhanced brand value through recognition of nature-related initiatives	- Building relationships with local communities through collaboration with NGOs and other organizations - Improved employee retention	●	●	●	20	20	10	- Appropriate communication with consumers - Appropriate disclosure in line with TCFD and TNFD recommendations

*Risk Emergence Period are defined as follows: short-term: 2025 -2027; medium-term: 2028 -2030; long-term: 2031 -2050.

Value Chain Overview and Linkage with Significant Risks and Opportunities

The Kirin Group will actively promote initiatives to address various social issues in order to connect the desire to enjoy and pass on the bounty of the abundant earth into the future together with all people involved in the value chain. In order to realize the "Kirin Group's Environmental Vision 2050," which aims to "Enrich the Earth through Positive Impact," we identify risks and opportunities at each stage of our value chain and implement response strategies to ensure the steady achievement of our targets. (For details on the "Kirin Group's Environmental Vision 2050", see (→P.11).)



Research & Development	Impact of diseases and air pollution on agricultural products	P.52	🟢🟡
	Cost of regulatory response	P.58	🟢🟡🟠🔴
	Cost of responding to genetic resource-related regulations	P.58	🟢🟡🟠
	Development of new markets and regions through research and development of new pharmaceuticals	P.70	🟢🟡🟠🔴
	Reduction of container and packaging raw materials and stable procurement	P.75	🟡🔴
	Enhancement of ecosystem services through crop breeding and advances in cultivation technologies	P.78	🟢
	Increase and diversification of available subsidies and financing due to strengthened nature-related policies	P.79	🟢🟡🟠🔴
Procurement	Impact of climate change and nature loss on agricultural products	P.43	🟢🟡🟠
	Impact on transportation from floods	P.48	🟡🔴
	Impact on agricultural products from floods and droughts	P.51	🟢🟡🟠🔴
	Impact of diseases and air pollution on agricultural products	P.52	🟢🟡
	Financial impact of carbon pricing on energy, agricultural products, and raw material procurement	P.53	🟢🟡🟠
	Cost of regulatory response	P.58	🟢🟡🟠🔴

	Cost of responding to land use-related regulations	P.58	🟢🟡
	Increase in cost of relocating production and procurement areas due to expansion of protected areas	P.58	🟢
	Environmental and economic incompatibility with rapid agricultural policy transitions	P.60	🟢
	Concerns about deforestation	P.62	🟢🟡🟠🔴
	High energy prices	P.65	🔴
	Reduction in agricultural land and ecosystem damage due to farmland abandonment and excessive use of agricultural chemicals	P.66	🟢
	Reduction of container and packaging raw materials and stable procurement	P.75	🟡🔴
	Reduction in reliance on fossil fuels, stable procurement of renewable energy, and promotion of energy conservation	P.77	🔴
	Strengthening the supply chain	P.78	🟢🟡🟠🔴
	Enhancement of ecosystem services through crop breeding and advances in cultivation technologies	P.78	🟢
Manufacturing	Impact of water pollution on production	P.45	🟡
	Environmental pollution by improper disposal of used containers	P.46	🟢🟡🟠🔴
	Disruption of operations owing to floods	P.47	🟡🔴
	Disruption of operations owing to droughts	P.49	🟡🔴
	Financial impact of carbon pricing on energy, agricultural products, and raw material procurement	P.53	🟢🟡🟠
	Early replacement of currently held assets for decarbonization	P.58	🟢🟡🟠🔴
	Cost of regulatory response	P.58	🟢🟡🟠🔴
	Cost of responding to pollution-related regulations	P.58	🟢🟡🟠
	Cost of responding to land use-related regulations	P.58	🟢🟡
	Increase in cost of relocating production and procurement areas due to expansion of protected areas	P.58	🟢
	Social resistance to fossil-derived raw materials	P.61	🟡🔴
	High energy prices	P.65	🔴
	Ecosystem damage due to leakage of pharmaceuticals	P.68	🟢
	Reduction in reliance on fossil fuels, stable procurement of renewable energy, and promotion of energy conservation	P.77	🔴

Supply and Logistics	Environmental pollution by improper disposal of used containers	P.46	🟢🟡🟠🔴
	Disruption of operations owing to floods	P.47	🟡🔴
	Impact on transportation from floods	P.48	🟡🔴
	Disruption of operations owing to droughts	P.49	🟡🔴
	Financial impact of carbon pricing on energy, agricultural products, and raw material procurement	P.53	🟢🟡🟠
	Cost of regulatory response	P.58	🟢🟡🟠🔴
	Cost of responding to genetic resource-related regulations	P.58	🟢🟡🟠
	Social resistance to fossil-derived raw materials	P.61	🟡🔴
Sales	Sustainable logistics	P.75	🔴
	Reduction in reliance on fossil fuels, stable procurement of renewable energy, and promotion of energy conservation	P.77	🔴
	Environmental pollution by improper disposal of used containers	P.46	🟢🟡🟠🔴
	Cost of regulatory response	P.58	🟢🟡🟠🔴
	Cost of responding to genetic resource-related regulations	P.58	🟢🟡🟠
	Opportunity loss due to ethical consumption	P.64	🟢🟡🟠
	Ecosystem damage due to leakage of pharmaceuticals	P.68	🟢
	Increasing distribution in infectious diseases caused by global warming	P.69	🟢🟡
	Increase in heatstroke caused by global warming	P.69	🔴
	Development of new markets and regions through research and development of new pharmaceuticals	P.70	🟢🟡🟠🔴
	Increased expectations for products and services that contribute to decarbonization	P.71	🔴
	Increased revenue due to growing demand for products contributing to nature restoration	P.74	🟢
	Enhanced brand value through recognition of nature-related initiatives	P.80	🟢🟡🟠🔴

Activities in Response to Significant Risks and Opportunities

Physical Risk/Chronic

Procurement



Impact of climate change and nature loss on agricultural products [medium to long Term]

Due to global warming and reduced diurnal temperature variation may significantly reduce yields of raw agricultural commodities, which could lead to higher procurement costs. Through water risk and water stress assessments in sourcing regions for agricultural raw materials, we have identified serious drought and flood risks that may adversely affect agricultural production. Furthermore, heavy rainfall associated with climate change and surrounding land development driven by economic growth have led to soil erosion and soil runoff in agricultural areas. Along with these factors, changes in the state of nature—such as land productivity declines caused by soil degradation and the reduction of pollinators—may also result in lower yields of agricultural raw materials and increased procurement costs.

Response strategy

► Support for farms to acquire certification for sustainable agriculture (adaptation measures)

To secure climate-resilient sourcing regions and mitigate risks from climate change and nature-related changes, we will continue to support the adoption of sustainable farm certification. In addition, through training on disaster risk management and cultivation practices that maintain yields while reducing the use of agrochemicals such as pesticides and fertilizers—we aim to reduce the impacts of environmental change on raw agricultural products and lower the environmental footprint of farming.

► Development of heat and drought tolerance technologies for climate change adaptation (adaptation measures)

To enable the stable production of hops with strong tolerance to environmental stresses such as heat and drought, associated with climate change, we will advance breeding and cultivation technologies.

► Accumulation of mass plant propagation technologies (adaptation measures)

We will continue to expand applications and accumulate knowledge of the “mass plant propagation technologies” developed by the Kirin Central Research Institute, to address yield risks from climate change. We expect its use when heat-tolerant varieties become commercially available. Given the difficulty of envisioning a beer business independent of key crops such as barley and hops, we will advance breeding technologies adapted to warming, while contributing to stable sourcing and the sustainability of agriculture.

► Development of alternative raw materials and new production technologies (adaptation measures)

Barley, a vital agricultural input for our core product, faces the risk of yield declines due to climate change. Accordingly, advancing technical expertise to enable beer-like flavors without reliance on barley is regarded as a potential adaptation measure. In addition, we assess and analyze the medium- to long-term impacts of climate change on crop yields by region for raw materials used for the isomerized sugar needed in beer-flavored beverages.

► Introduction of perennial grains into annual crop production systems (adaptation measures)

In many wheat-producing regions of Australia, intensive cultivation of annual crops has negatively affected water quality and soil health. By integrating perennial grains into the production system in these areas, we aim to simultaneously achieve ecosystem restoration and productivity improvement.

► GHG emission reduction (mitigation measures)

To minimize the risk of declining agricultural yields, we are working to reduce GHG emissions across our value chain as a climate change mitigation measure. In March 2026, we renewed “SBT Net-Zero certification.” As part of this recertification, we established a new FLAG (Forest, Land and Agriculture) target, which focuses on reducing emissions associated with deforestation and land use change, and aim to achieve a 33% reduction by 2030 compared with 2019 levels. In addition we aim to achieve net-zero by 2050, meet the “SBT 1.5°C” target by 2030, and 100% renewable electricity by 2040 under RE100.

► Risk assessment of water and land use based on the SBTN methodology

We support the initiatives of the Science Based Targets Network (SBTN) to promote the establishment of integrated, science-based targets for nature (SBTs for Nature), which address a broad range of aspects of nature, including climate, freshwater, land, oceans, and biodiversity. In line with this initiative, we are working to apply the methodologies presented in the SBTN Technical Guidance.

Activities

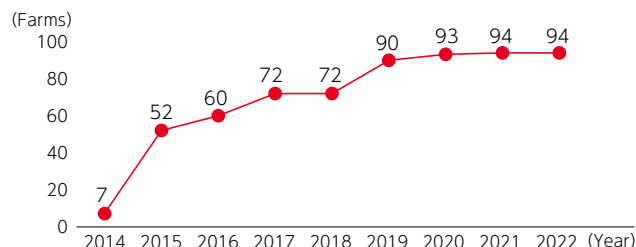
► Support for obtaining Rainforest Alliance certification for raw agricultural product farms

Rainforest Alliance (RA) certification is an international system that verifies agricultural producers and businesses meet stringent standards for sustainable agriculture and forest management. These standards encompass environmental protection, human rights, worker welfare, and community well-being. Certified farms and businesses are authorized to use the RA frog seal, a symbol of ecosystem health indicating that products are produced using sustainable practices. The Kirin Group supports RA certification for tea plantations in Sri Lanka, a key sourcing region for “Kirin Gogo-no-Kocha,” and for coffee farms in Vietnam, which supply approximately 30% of our coffee beans. Certification provides third-party recognition of environmental and social practices, which enhances product value. It contributes to improved livelihoods and educational opportunities in local communities. To promote sustainable sourcing, we have expanded the number of farms supported for certification as a key management indicator. To date, with our support, 94 large tea estates and 4,804 smallholder tea farms, as well as 659 coffee farms (including transitions from UTZ certification), have obtained certification. In August 2021, we also launched a year-round product, “Kirin Gogo-no-Kocha Straight Tea,” using tea leaves sourced from certified plantations.

Activities in Response to Significant Risks and Opportunities

Physical Risk/Chronic

Number of Large Farms Obtaining Certification in Sri Lanka



Supporting Growers to Obtain Rainforest Alliance Certification



► Development of heat and drought tolerance technologies for climate change adaptation (adaptation measures)

The Kirin Group's Institute for Future Beverages and CULTA, a University of Tokyo spinoff, are conducting joint research to enhance the heat tolerance in hops and enable climate-resilient production. The establishment of indoor cultivation technology now allows multiple harvests a year under controlled conditions, compared to conventional annual evaluations tied to harvest cycles. As heat-tolerant hop varieties are commercialized, integration with mass propagation technologies is expected to further accelerate R&D to address yield and quality risks,

contributing to sustainable hop production.

In 2025, the Institute for Future Beverages and Kirin Central Research Institute developed a technology to induce heat and drought tolerance to hop seedlings. By applying a six-week heat treatment at 25°C during liquid culture propagation, this method enables the enhancement of stress tolerance without genetic modification, while maintaining the intrinsic flavor profile of hops. Laboratory and field trials in Iwate Prefecture confirmed that treated seedlings showed higher plant height and chlorophyll content, as well as a tendency toward increased cone yields compared to untreated seedlings. This technology is expected to support stable hop cultivation and sourcing under climate change, contributing to the sustainable supply of brewing ingredients.

► Utilization of plant mass propagation technology

To address the risk of reduced agricultural yields due to climate change, rapid and large-scale propagation technology is required when climate-resilient, heat-tolerant varieties are commercialized. Kirin Central Research Institute has developed proprietary "bag-type culture vessel technology," enabling the mass production of disease-free seedlings and genetically identical (clonal) plants, with multiplication rates ranging from tens of thousands to hundreds of thousands, depending on the plant species. The plants are grown in small plastic film bags with aerated nutrient solutions for growth, allowing more efficient use of water resources compared to soil-based cultivation and enabling stable production even in water-stressed regions. In combination with the deployment of heat-tolerant varieties, this technology is expected to contribute significantly to establishing a sustainable and resilient agricultural supply system.

► Possession of technology for achieving beer flavor using soybeans

"Kirin Nodogoshi Nama," a beer-flavored alcoholic beverage sold by Kirin Brewery in Japan, is brewed using isomerized sugar and soybeans instead of barley. By possessing brewing technology that reproduces beer flavor with raw materials expected to have a stable supply, we can address the risk of reduced barley yields. Although climate change is expected to impact soybean yields differently across regions, the overall global yield is not expected to change significantly.

Research and analysis on isomerized sugar used to beer-flavored beverages has shown that the probability of a simultaneous 10% yield decrease in corn in the four major production regions (USA, China, Brazil, Argentina) exceeds 80% by the end of the century under a 4°C scenario, and about 10% around 2050 under a 2°C scenario. However, for other agricultural products that can be used as raw materials for isomerized sugar, such as sugarcane and potatoes, the yield is not expected to decrease globally, despite regional variations. Based on these results, we believe that combining production regions, crops, and brewing technologies will allow us to respond to medium- to long-term yield fluctuations under climate change, and that brewing technology that does not rely on barley is effective as an adaptation measure to address physical risks.

► Introduction of perennial grains into annual crop production systems

The "The Good Grain" initiative, in collaboration with Sustainable Table and Stone & Wood, explores the potential for ecosystem restoration and productivity improvement by introducing perennial grains (Mountain Rye) into annual crop production systems. Largescale cultivation and malt production are being promoted in demonstration fields, and new uses in beer brewing are being tested. Additionally, symposiums involving the supply chain, agricultural industry, and brewing industry are held to share results and challenges.

► GHG emission reduction

We will implement GHG emission reductions across the entire value chain, from product development to sales (details on GHG emission reduction initiatives (→P.53-57)).

► Risk assessment of water and land use based on SBTN methodology

The Kirin Group is working toward target setting in line with SBTN Technical Guidance v1.1. In 2025, based on the methodologies outlined in Steps 1 and 2, we conducted a risk assessment and prioritization related to water resources and land use across our upstream value chain and our own production sites (Details (→P.22)).

Activities in Response to Significant Risks and Opportunities

Physical Risk/Chronic

Manufacturing

Impact of water pollution on production [medium to long Term]

At sites located in regions with a high risk of water pollution, increased investment may be required to enhance or upgrade water purification and treatment facilities. In addition, in water risk assessments conducted for our production sites, water quality is positioned as one of the key evaluation factors, and priority sites with higher levels of risk have been identified.

Response Strategy

► Understanding the actual situation through risk assessment

In water risk assessments targeting our production sites, we include water quality as the evaluation axis to identify high-risk sites and consider appropriate responses measure.

► Advanced water saving technologies (adaptation measures)

We aim to reduce water use to lower the volume required for wastewater treatment and water quality management. Based on water stress and water risk assessments, we will promote appropriate water reduction measures tailored to country- and region-specific water stress levels, grounded in scientific evidence.

► Minimization of wastewater impact (mitigation measures)

Through the establishment and proper operation of an environmental management system, we comply with environmental regulations, including water pollution prevention laws in each country. In addition, we set voluntary standards that exceed legal requirements in order to minimize the impact of wastewater.

Activities

► Understanding the actual situation through risk assessment

In 2025, we assessed water risks at 64 of our production sites. Basin risk assessments included water quality as an evaluation axis to identify priority sites requiring focused action. Going forward, we will advance on-site assessments at these priority sites and implement measures to address water pollution risks (Details [\(→P.23\)](#)).

► Advanced water saving technologies

The Kirin Group is advancing the construction and expansion of water purification and reuse facilities at breweries located in water-scarce areas. In 2024, Lion's Tooheys Brewery introduced a reverse osmosis water recycling plant, enabling the reuse of approximately 270 million liters of water annually and thereby reducing water withdrawals. In addition, at our breweries, we use equipment and piping cleaning processes at our breweries, we strictly manage water use in equipment and piping cleaning processes and implement cascade reuse by using high-clarity rinse water in the initial cleaning stage. Under our quality assurance framework, we share and accumulate know-how on water reuse tailored to water quality, enabling high levels of water savings. (Details on water saving technologies [\(→P.49\)](#)).

► Minimization of wastewater impact

The Kirin Group complies with water pollution control regulations in each country and has established voluntary standards that exceed legal requirements to minimize wastewater impact. In addition, we have developed the "Kirin Group Environmental Management Policy (KGEMP)" as a guidance for environmental management and have established a system in which environmental officers are appointed across the Group. Each business site works to reduce GHG emissions and water withdrawals and prevent pollution while ensuring strict compliance with applicable laws and regulations. Regular internal audits are conducted to verify system compliance and progress toward targets (Details on environmental management systems [\(→P.59\)](#)).

Activities in Response to Significant Risks and Opportunities

Physical Risk/Chronic

Manufacturing Supply and Logistics Sales



Environmental pollution from improper disposal of used containers [medium to long Term]

If used containers are not properly recycled and are released into the environment, they may have a negative impact on a wide range of ecosystems in the form of greenhouse gas emissions, damage to the natural environment, and marine plastic pollution. Furthermore, stricter future regulations on the improper disposal of plastic containers could present transition risks, potentially increase extended producer responsibility and diminishing corporate brand value.

Response Strategy

► Building a society that recycles plastics

In accordance with the "Kirin Group Plastic Policy" that we established in 2019, the Kirin Group is progressively increasing the ratio of recycled resin used in alcoholic and non-alcoholic beverage PET bottles in Japan to meet the targets of 50% by 2027 and of 100% sustainable container use by 2050.

Additionally, Lion has developed the "Sustainable Packaging Strategy" to enhance recycling efforts in Australia and New Zealand. In collaboration with the Australian Packaging Covenant Organization (APCO), Lion set ambitious goals to incorporate over 50% recycled material in its packaging by 2025 and ensure that 100% of its packaging is reusable, recyclable, or compostable. Results achieved in 2025 under the strategy, recycled content of packaging was 70.22% and recyclability of packaging was 98.9%.

Activities

► Horizontal recycling of PET bottles

We are collaborating with various companies to efficiently segregate, collect, and recycle used PET bottles, promoting bottle-to-bottle horizontal recycling. Our partnerships have gradually expanded, including WELCIA YAKKYOKU, Tobu Railway, and Chiba Yakuin in 2022, Sugi Pharmacy and Tokyo Tatemono in 2023, and

Yomiuri Land in 2024; and MUFG Bank in 2025. In a collaboration with MUFG Bank, initiatives were implemented at 134 branches in the Kanto area to eliminate leftover beverages in PET bottles and ensure thorough separation, thereby preventing the mixing of substances that hinder recycling and promoting horizontal recycling with lower energy consumption and GHG emissions. At some branches, the collected PET bottles are processed on dedicated bottle recycling lines, where contamination is minimized, which is expected to improve the yield of recycled PET resin.

We are also strengthening collaboration by forming agreements with municipal governments. In 2023, we signed a partnership agreement on the horizontal recycling of PET bottles with Asahi Soft Drinks Co., Ltd. and the Joso Regional Municipal Union, comprising four cities (Josso, Toride, Moriya, and Tsukubamirai). All used PET bottles sorted by citizens in these cities are recycled mechanically or chemically to regenerate PET bottle material, which is then reused in PET bottle products. In 2025, we signed new partnership agreements with Samukawa Town and Chigasaki City in Kanagawa Prefecture, as well as Toyota Tsusho Corporation. Through this initiative, we aim to establish a local Circular Economy for PET bottles by collaborating with the municipalities where Kirin Beverage's Shonan Plant is located. Under this agreement, approximately 240 t of used PET bottles generated annually in Samukawa Town and Chigasaki City are expected to be horizontally recycled.

New Functional Recycling Box and Awareness Sticker



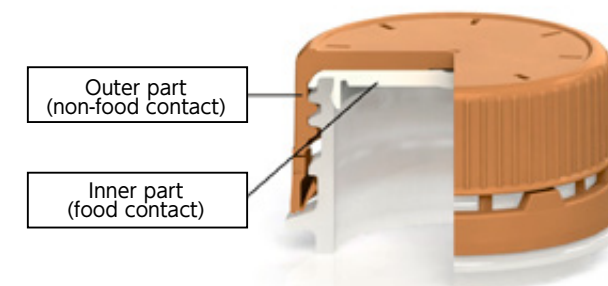
Furthermore, new functional recycling boxes with educational stickers have been installed near vending machines in various

locations. With consumer cooperation in depositing only beverage containers, we efficiently collect empty containers, promoting horizontal recycling throughout society.

► Horizontal recycling of beverage caps

In 2024, we conducted Japan's first proof-of-concept trial for the practical implementation of horizontal recycling of caps used for alcoholic beverage PET bottles in collaboration with Nihon Yamamura Glass Co., Ltd. This initiative utilizes two-piece caps with 10% recycled resin in the outer part (non-food contact) to enable horizontal recycling into caps for the same purpose. The trial will use approximately 40,000 caps, with an estimated reduction in GHG emissions of about 1.7 g per cap.

Two-Piece Cap Used in the Proof-of-Concept Trial



► VicReturn initiative

In Victoria, Lion continues to play an active role as a founding member of VicReturn, the coordinator of the container deposit scheme launched in November 2023. From October 2024 to September 2025, we estimated the number of Lion's containers collected by applying the overall collection rates under the scheme (for glass and aluminum). As a result, the estimated collection volume was 82 million containers, corresponding to a weighted average collection rate of 69.9%.

Activities in Response to Significant Risks and Opportunities

Physical Risk/Acute

Manufacturing Supply and Logistics



Disruption of operations owing to floods [short to long term]

If climate change leads to more frequent and severe disasters such as typhoons and torrential rainfall, there is a high probability of significant impacts, including production shutdowns. Having operated in Japan and Australia—where water environments differ greatly—the Kirin Group has gained experience-based insights that water-related risks vary by country and region and are highly dependent on specific basins and locations. Based on this understanding, we have been conducting regular water risk assessments based on scientific information since 2014.

Response Strategy

► Sharing of knowledge on responses to floods (adaptation measures)

We share the knowledge and experiences of locations that have dealt with flooding within the group to minimize damage.

► Insurance for floods (adaptation measures)

We will consider insurance at business sites as an effective measure against natural disasters, including floods.

► Addressing flooding at facilities (adaptation measures)

Flooding could have a serious impact on business continuity; therefore, at site with critical supply responsibilities, we will implement physical mitigation measures as necessary to ensure uninterrupted supply to customers.

Activities

► Re-evaluation and analysis of water risks across the group

New Belgium Brewing's Asheville Brewery in the United States had not previously been assessed as high-risk under conventional risk evaluation tools. However, in September 2024, it suffered flood damage from Hurricane Helene. This experience led us to recognize

the need to review the consistency between tool-based assessments and actual conditions, as well as the precision of the assessment grid, and the comprehensiveness of evaluation criteria. We subsequently conducted a water risk assessment targeting our production sites (Details [→P.23](#)).

In addition, we are working to set water-related targets in accordance with SBTN Technical Guidance v1.1. In 2025, based on the methodologies outlined in Steps 1 and 2 of the guidance, we conducted risk assessments and prioritization for water resources and land use across our upstream value chain and our own production sites (Details [→P.22](#)). We will accumulate insights from new water risk assessment and analysis results, while examining and sharing response measures for similar events in the future, thereby strengthening the Group's resilience to water-related risks.

► Decision-making on insurance coverage using wind and water damage simulation systems

In 2020, we used the natural disaster model AIR to simulate wind and water damage for our main 20 business sites in Japan, thereby estimating loss percentages and amounts of damage for each recurrence period. For 200-year disasters (a disaster occurring once every 200 years), the total exposure across the Kirin Group was approximately 1.0 billion yen. At KYOWA PHARMA CHEMICAL, however, we calculated that the annual amount of damage from a wind and water disaster of a scale occurring once every 500 years would be equivalent to 42% of the value of its property. Accordingly, in 2022, we surveyed the site, and confirmed that the amount of damage would be precisely equivalent to 17%. We also surveyed Thai Kyowa Biotechnologies, which is located in an area where flood and other water risks are expected, in 2023. Going forward, we will continue to survey sites and assess the possibility of insurance for business sites that we have judged to be at high risk of future flood damage, based on our wind and flood simulation system.

► Flood prevention measures at Kyowa Kirin

Kyowa Kirin recognizes that flooding and other water-related hazards could result in prolonged operational disruptions at its own pharmaceutical plants, as well as at contract manufacturers of

active pharmaceutical ingredients (APIs) and packaging suppliers, leading to significant financial impacts from recovery costs, production stoppages, and lost business opportunities. At its own sites, the Company has formulated flood risk management policies and is implementing mitigation measures, including the geographic diversification of critical production assets, waterproofing of buildings, elevation of key equipment, and installation of flood barriers, with further capital investments planned as needed. In addition, we are advancing risk assessments and response measures across the supply chain to avoid production disruptions and minimize impacts. Given the potential exposure of API manufacturers and packaging suppliers, we are also engaging with these partners to assess their flood risk preparedness, identify gaps, and promote the development of business continuity plans (BCPs) and disaster response drills.

Activities in Response to Significant Risks and Opportunities

Physical Risk/Acute

Procurement Supply and Logistics



Impact on transportation from floods [short to long term]

If climate change leads to more frequent and severe disasters such as typhoons and torrential rainfall, there is a high probability of impacts on product distribution and raw material transportation. In particular, ports involved in raw material procurement—including collection hubs in exporting countries and port silos and warehouses in importing countries—may face the risk of flood damage to stored raw materials. Having operated in Japan and Australia—where water environments differ greatly—the Kirin Group has gained experience-based insights that water-related risks vary by country and region and are highly dependent on specific basins and locations. Based on this understanding, we have been conducting regular water risk assessments based on scientific information since 2014.

Response Strategy

► Sharing of knowledge on responding to floods (adaptation measures)

We utilize response manuals for widespread logistics disruptions caused by natural disasters to address similar incidents. Additionally, we continuously update these manuals and accumulate knowledge whenever new disasters occur.

► Diversification of suppliers (adaptation measures)

We mitigate risks by diversifying suppliers. In collaboration with suppliers, we work to ensure a stable supply chain to deliver safe and reliable products to customers at optimal price.

Activities

► Utilizing knowledge for responding to transportation impacts from typhoon damage

Immediately after we recovered from major damage to logistics networks from the 2018 West Japan Torrential Rain Disaster, we created a manual for responding to similar events. As a result, we were able to avoid any significant impact from subsequent typhoon damage on product distribution, including Typhoon Faxai, which caused significant damage, particularly in Chiba Prefecture, and Typhoon Hagibis, the first typhoon to receive the designation of a Disaster of Extreme Severity (both occurred in 2019) and a Specified Anomalous Disaster.

In 2022, to understand the risk of port flooding, we surveyed flooding risks and the presence of countermeasures at major barley shipping ports overseas. The results showed that flooding risk is relatively low in Canada, Australia, and the United Kingdom. In the Netherlands and Germany, while there is a potential flooding risk of 0.5 to 5 meters in the future, planned countermeasures have been already developed. The survey revealed that even when flooding risk at the port itself is not high, port functions may still be disrupted if railways and roads connecting to the port or adjacent urban areas are affected by flooding. For acute physical risks such as flooding, we believe that accumulating risk analysis, assessment, and countermeasures at each stage of the value chain will help enhance the resilience of our business operations.

► Diversification of malt suppliers and long-term contracts with hop farmers

We have diversified our procurement of malt, the main ingredient of beer, across three continents: North America, Europe, and Australia. We combine procurement measures for hops, such as adopting long-term contracts with producers, as part of efforts to secure the necessary amounts, and minimize the impact of market prices.

Activities in Response to Significant Risks and Opportunities

Physical Risk/Acute

Manufacturing Supply and Logistics



Disruption of operations owing to droughts [short to long term]

Water resources are essential in the production processes for alcoholic and non-alcoholic beverages, pharmaceuticals, and biochemical products. Severe droughts caused by climate change have the potential to disrupt production. Having operated in Japan and Australia—where water environments differ greatly—the Kirin Group has gained experience-based insights that water-related risks vary by country and region and are highly dependent on specific basins and locations. Based on this understanding, we have been conducting regular water risk assessments based on scientific information since 2014.

Response Strategy

► Advanced water reduction technology (adaptation measures)

We assess water stress and water related risks based on scientific evidence, and promote appropriate reduction in water use according to the level of water stress in each country and region.

► Sharing drought response knowledge (adaptation measures)

We enhance the resilience of each business by sharing the knowledge and insights gained from drought experiences across our global sites.

► Water source forest conservation activities at domestic production sites (mitigation measures)

Launched in 1999, these water source forest conservation activities aim to conserve biodiversity and promote groundwater recharge in water source areas surrounding our production sites, thereby contributing to the sustainable use of water resources.

Activities

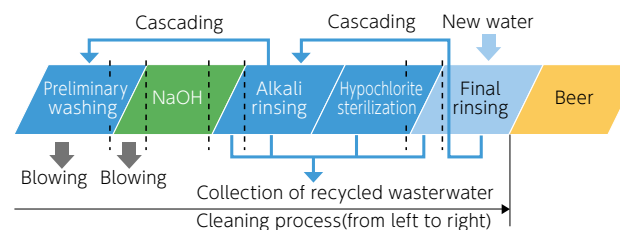
► Introduction of reverse osmosis (RO) water recycling plant at Tooheys Brewery

Unlike Japan, which is relatively water-abundant, Australia faces

chronic water scarcity. For example, in Sydney, New South Wales, there is a high risk of drought, and a significant amount of water is used for industrial purposes rather than daily living, necessitating water conservation in the business sector. To reduce water use, the Kirin Group has set a target to build three water recycling facilities in Australia that treat and reuse water used in brewing operations. In 2024, Tooheys Brewery installed its second reverse osmosis (RO) water recycling plant, following the facility at Castlemaine Perkins Brewery in Queensland. The recycled water is used for equipment cleaning and other purposes. This facility's introduction allows for the reuse of approximately 270 million liters of water annually, contributing to water savings. This is equivalent to approximately 108 Olympic-size swimming pools. In addition, a \$7.2 million investment will save over \$700,000 in annual water bills.



The Water Used for Cleaning Is Cascaded for Repeated Use According to Water Quality.



► Strict management of flow rate and flow velocity to avoid wasting water in the production process

In our production process, we use a lot of water in cleaning and sterilizing processes. We have established management system to strictly control quality of the cleaning processes and water

consumption by optimizing flow rate and other parameters. We also actively promote reuse of water, depending on purposes. For example, the final rinse water from cleaning processes, which has relatively high clarity, can be reused in the initial cleaning stage of pipes and equipment. In this way, the water used for cleaning is cascaded for repeated use according to water quality. Ensuring effective cleaning while balancing the volume and timing of recovered and reused water requires advanced operational expertise. The Kirin Group shares and accumulates such know-how across sites, enabling high levels of water conservation.

► Addressing water risks in watershed through a landscape approach

The Fort Collins Brewery, under the Kirin Group, uses water from the Colorado River Basin in the United States. In recent years, the Colorado River Basin has experienced a decrease in river flow due to reduced snowfall. Despite this, water demand has increased due to the expansion of agriculture and dairy farming upstream, and population growth downstream. Additionally, there are stringent restrictions on water usage imposed by geographical and historical contexts. This water stress cannot be resolved through our water-saving efforts alone. Therefore, the Kirin Group has begun collaborating with watershed stakeholders and the community to find solutions together. In March 2023, we held a TNFD scenario analysis workshop with TNFD stakeholders and local water experts to discuss and consider strategies for addressing water stress issues. In 2025, we participated in the TNFD Nature Transition Plan pilot Program and developed a transition plan. Through this program, in addition to our going efforts to reduce water use intensity at our breweries, we reaffirmed the importance of a landscape approach that includes collaboration with stakeholders and strengthening watershed resilience. By collaborating not only within our company but also with local communities, experts, and environmental organizations, we are strengthening our ability to approach shared challenges. We share this knowledge across the entire group to enhance our response capabilities.

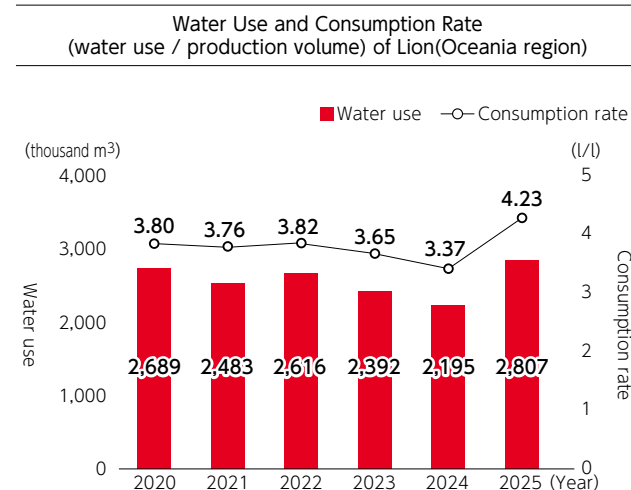
Activities in Response to Significant Risks and Opportunities

Physical Risk/Acute

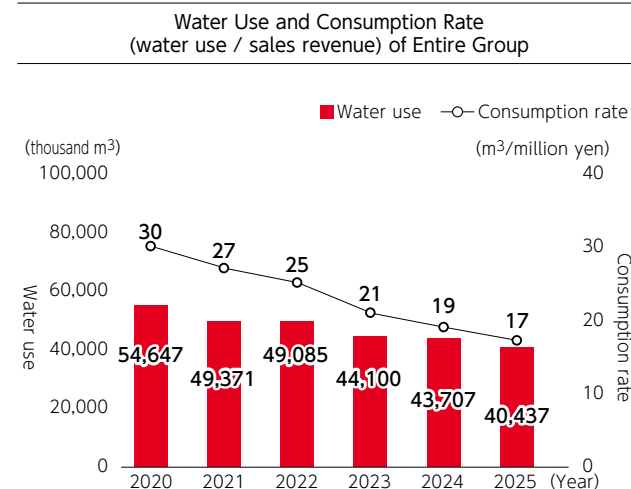
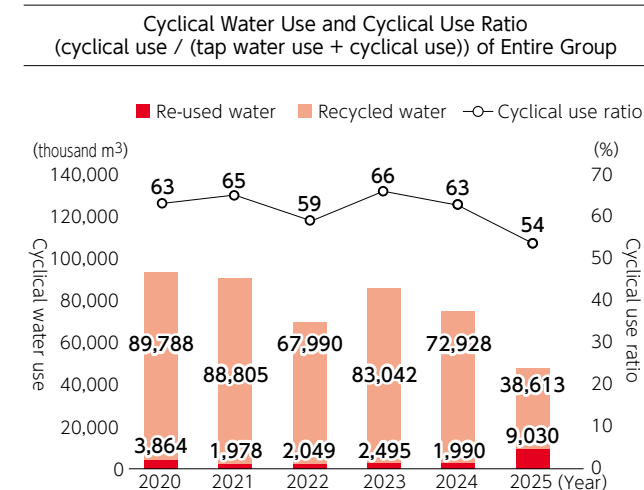
► Water Source Forest Conservation Activities at domestic manufacturing sites

On Water Source Forest Conservation Activities, which help protect the water sources for our plants, began in 1999 in Tanzawa district in Kanagawa Prefecture—the water source area for Kirin Brewery's Yokohama Plant—pioneering such efforts in the industry. These activities are now carried out 11 locations across Japan. Based on medium- to long-term agreements with local governments and other stakeholders that manage water source forests, we promote activities such as tree planting, undergrowth clearing, branch pruning, and thinning. As a result, many of these forests have become healthier and more vibrant. At some locations, interested customers are also invited to participate in these activities. In 2025, we compiled and assessed baseline information on biodiversity and natural disaster risks in the watershed where these water source forests are located.

Metrics and Targets



*From 2025, irrigation water usage at Lion's vineyards has been added to the calculation scope.



Activities in Response to Significant Risks and Opportunities

Physical Risk/Acute

Procurement



Impact on agricultural products from floods and droughts [short to long term]

Water risks, water stress, and disasters caused by climate change may reduce the yields of raw agricultural materials, increasing the financial impact on procurement. Having operated in Japan and Australia—where water environments differ greatly—the Kirin Group has gained experience-based insights that water-related risks vary by country and region and are highly dependent on specific basins and locations. Based on this understanding, we have been conducting regular water risk assessments based on scientific information since 2014.

Response Strategy

► Responses to water stress in areas producing agricultural raw materials (adaptation measures)

In addition to mitigating long-term climate risks by reducing GHG emissions, it is essential to strengthen our preparedness for floods and droughts as part of our short-term strategy. For this purpose, priority sites will be narrowed down after conducting water risk analysis in production areas. Among the priority sites, action sites will be identified and water resource conservation activities and training will be promoted, as well as appropriate disaster mitigation measures and sustainable water use management. This will contribute to the risk reduction of yield declines due to extreme weather events and to ensuring a stable agricultural product supply.

► Development of heat and drought tolerance technologies for climate change adaptation (adaptation measures)

To enable the stable production of hops with strong tolerance to environmental stresses such as heat and drought, associated with climate change, we will advance breeding and cultivation technologies.

► Prevention of soil runoff in areas producing agricultural raw materials (adaptation measures)

Soil runoff leads to a decline in agricultural productivity and negatively impacts the conservation of water resources. Enhancing

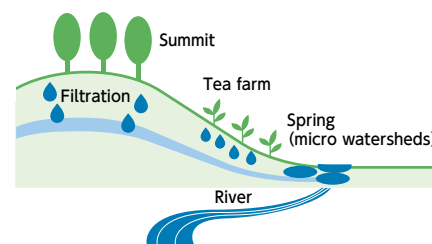
soil conservation and water management practices is crucial for ensuring the sustainability of agricultural land, particularly as precipitation patterns become more unpredictable. Effective soil management can reduce erosion during rainfall, improve water permeability, and increase water retention during droughts. Additionally, maintaining forests and vegetation supports water source recharge and contributes to the stability of the regional water cycle. Through these measures, we aim to mitigate procurement risks.

Activities

► Training on measures to address water stress in agricultural production areas

Many tea farms in Sri Lanka's highlands plant tea on steep slopes. Where geological conditions are favorable, rainwater permeates underground and resurfaces as springs within the farms. These springs are called micro-watersheds. Though small in area, these micro-watersheds serve as critical water sources. Most originate in the central highlands and feed the rivers that supply Sri Lanka's coastal cities. Recognizing their importance, we began conservation activities in 2018 and have protected 35 water sources by the end of 2025. As part of these efforts, we trained 1,750 local residents on water source conservation and distributed pamphlets on water stewardship and watershed protection to approximately 15,000 people. Some farms have embedded water education into childcare and primary school programs for harvest workers' families. In Vietnam, coffee farms have incorporated similar training since 2020 as part of their certification process, teaching techniques to prevent soil desiccation during droughts and methods for water storage. We visit tea farms in Sri Lanka annually to monitor the progress of water source conservation activities.

Mechanism of Micro Watersheds



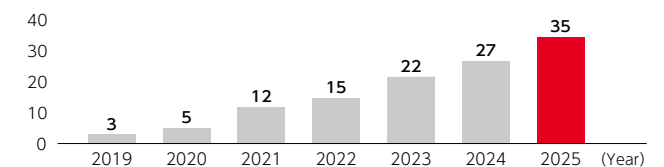
► Development of plant heat and drought tolerance technologies for climate change adaptation

We have developed a technology to enhance the heat and drought tolerance of hops—a crop highly vulnerable to climate change—without compromising flavor. The technology uses heat treatment during the cultivation process to confer stress tolerance to seedlings, eliminating the need for genetic modification. Field trials have confirmed stable growth and consistent yields. Going forward, we plan to scale up production and expand its implementation across different varieties and regions to strengthen supply stability (Details (→P.44)).

► Cover crop training to prevent soil runoff

In Sri Lanka, the impact of climate change has led to frequent occurrences of drought and heavy rain. Urbanization, industrialization, and inappropriate land use have exacerbated soil erosion and runoff, which are significant problems. Tea farms, often situated on steep, sunny slopes, face additional challenges. Heavy rains not only cause the runoff of fertile soil but have also led to landslides that have resulted in loss of lives. Covering the ground with grass (cover crops) is an effective soil management measure that enriches ecosystems and serves as an adaptation strategy to climate change. This approach prevents soil runoff by shielding the ground from direct rainfall during heavy rains and helps retain water during droughts. In our training activities to support the acquisition of certification for sustainable tea farms in Sri Lanka, we teach how to identify grasses that negatively impact tea cultivation. We instruct tea farms to ensure that the ground is covered with well-rooted grasses. In collaboration with neighboring universities, we have developed a method that is accessible to farm workers, providing them with science-based guidance.

Number of Areas Where Water Sources Were Conserved among Sri Lankan Tea Farms



Number of Residents Educated on The Importance of Water

100% Group training : 1,750 people
Distribution of pamphlets : 15,000 people

Activities in Response to Significant Risks and Opportunities

Physical Risk/Acute

Research & Development Procurement



Impacts of diseases and air pollution on agricultural products [short to medium term]

With climate change and the degradation and pollution of the natural environment, there is growing concern about the impact of diseases and air pollution on agricultural yields. In Sri Lanka, air pollutants from neighboring India are damaging tea leaves in lowland areas. Global warming is expected to exacerbate grape diseases. Additionally, Brazil, a major producer of oranges for processing, has experienced a sharp decline in production due to extreme heat, low rainfall, and disease.

Response Strategy

► Research and measures from a long-term perspective (adaptation measures)

We will leverage our strength of having fields where we are able to conduct surveys and tests to solve various issues related to the environment through a scientific approach and research and development with a long-term perspective.

Activities

► Research and measures from a long-term perspective

We consider integrated pest management (IPM) to be an effective approach to addressing crop diseases, and pilot initiatives have already begun in selected vineyards and tea plantations. Enhancing on-farm biodiversity is expected to contribute to greater ecosystem stability. We are also investigating the potential of cover cropping to enrich ecosystems and suppress disease occurrence, as well as initiating research on the early detection of insects and mites that may act as vectors of disease.

Long-term, ongoing research is necessary to solve various issues related to climate change and natural capital. In the Kirin Group, we have our own vineyards, and we have established strong relationships of trust with tea farms in Sri Lanka through long term engagement.

One of the major diseases in grape cultivation is downy mildew, with serious damage reported worldwide. To mitigate this damage, it is urgent to accurately identify the pathogens affecting grape quality and yield and to develop technologies that maximize control effectiveness. The Institute for Future Beverages has established the following two technologies:

【 Development of technology for year-round maintenance and management of downy mildew pathogens 】

The research team has developed an innovative method to stably maintain and manage downy mildew pathogens throughout the year. This technology allows for the continuous cultivation of pathogens in the laboratory without relying on conventional overwintering by oospores in leaf litter.

【 Establishment of technology for pesticide efficacy evaluation 】

Utilizing the aforementioned maintenance technology, the team has established a drug resistance evaluation system that can be assessed year-round. This technology is expected to significantly contribute to the early detection of resistant bacteria and the verification of the effectiveness of new pesticides.

The development of these technologies will significantly advance downy mildew control strategies and enable more effective and sustainable disease management. These research results received a conference presentation award from the American Society for Enology and Viticulture (ASEV) Japan.

Activities in Response to Significant Risks and Opportunities

Transition Risk/Policy

Procurement Manufacturing Supply and Logistics

Financial impact of carbon pricing on energy, agricultural products, and raw material procurement [short to medium term]

The introduction of carbon pricing mechanisms—including carbon taxes, emissions trading schemes, and carbon border adjustment measures—will likely drive up energy procurement and logistics costs. In Japan, emissions trading through the GX League is expected to expand. Power generators may be required to purchase emission allowances, which could increase our energy procurement costs.

Carbon taxes and border adjustment measures could also significantly increase agricultural commodity prices. As carbon pricing boosts demand for biofuel feedstocks such as corn and soybeans, competition for raw materials used in alcoholic and non-alcoholic beverages may intensify. In addition, carbon pricing is expected to increase natural gas prices, which would affect nitrogen fertilizer costs.

Response Strategy

► Activities Energy saving/renewable energy/switch of energy source

To minimize the financial impact of carbon pricing, we will first reduce GHG emissions in accordance with our roadmap, aiming for the 1.5°C-aligned SBT targeting 2030 for Scope 1 and Scope 2 emissions. Specifically, cost savings from energy efficiency are expected to offset, to the greatest extent possible, both the depreciation associated with capital investments and the higher costs of renewable energy procurement. Since the outlook for technological innovations in areas such as switching energy sources and trends in energy costs are currently unclear, we cannot accurately estimate costs for 2030 onward. We will, however, incorporate measures to reduce GHGs aimed at achieving our RE100 renewable energy target by 2040 and the net-zero target by 2050 into our business plan.

► GHG emission reduction through logistics optimization

To reduce GHG emissions in logistics departments, we will develop various initiatives such as modal shifts, joint deliveries with industry peers, and higher loading ratios. GHG emissions from upstream transportation (category 4), including the transportation of products, account for approximately 10% of total Scope 3 emissions, and are a major target for the reduction of emissions. In recent years, reducing the impact of transportation has also been an important initiative from the perspective of reducing the risk that we will not be able to transport products owing to the shortage of truck drivers.

► GHG emission reduction through lightweight packaging

By lightweighting containers and packaging such as bottles and labels, we will reduce GHG emissions in manufacturing and logistics.

► Increasing the ratio of recycled materials in packaging

We will adopt can lids that increase the ratio of recycled aluminum, thereby reducing Scope 3 emissions, instead of primary aluminum ingot which requires significant electricity during manufacturing.

► GHG emission reduction at the sales stage

By introducing high energy-efficient heat pump vending machines, we will reduce Scope 3 emissions.

► Risk mitigation through mass plant propagation technologies

To address the competition risks with beverage raw materials arising from increased demand for biofuel crops such as corn and soybeans, we are exploring the use of mass plant propagation technologies to improve cultivation efficiency and help mitigate potential raw material shortages and price increases.

► Measures against fertilizer price increases

In response to the rising prices of nitrogen fertilizers, we support the acquisition of sustainable farm certifications and provide proper fertilizer management training to farmers.

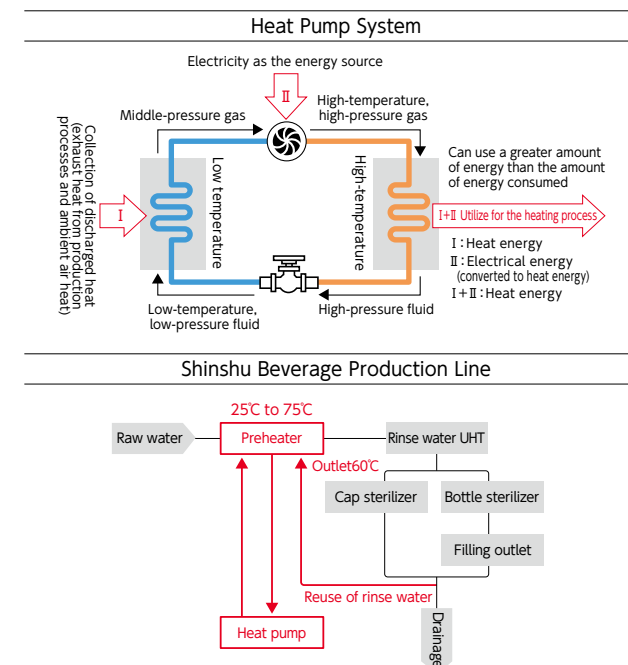
Activities

► Energy saving/renewable energy/switch of energy source

【Utilization of heat pumps in production processes】

The Kirin Group believes that reducing dependency on fossil fuel

combustion and increasing that on electricity, and, furthermore, using renewable electricity are the most effective ways of energy efficiency. Kirin Brewery reduced GHG emissions by approximately 70% over the 25 years from 1990 to 2015. Since 2019, heat pump systems have been introduced at wastewater treatment plants in six Kirin Brewery plants, reducing CO₂ emissions by approximately 4,800 t annually. This represents roughly 3% of Kirin Brewery's total emissions. At Shinshu Beverage, about 970 tonnes of CO₂ emissions are reduced annually by reusing waste heat, which is difficult to use directly, in the bottle cap rinsing process. The Kirin Brewery Okayama Plant has reduced annual CO₂ emissions by approximately 180 tonnes by reusing waste heat and using thermal energy from the atmosphere in a hot water sterilization process for cans.



【Improving compressor efficiency】

At the Kirin Beverage Shonan Plant, in 2021, we switched our high-pressure compressors for PET bottle molding from V-type reciprocating compressors to screw compressors and horizontally

Activities in Response to Significant Risks and Opportunities

Transition Risk/Policy

opposed reciprocating compressors with variable frequency drives, thereby reducing annual power usage by around 8%. These machines enable us to recover waste heat from themselves and to reuse the heat to other processes.

Improving Compressor Efficiency



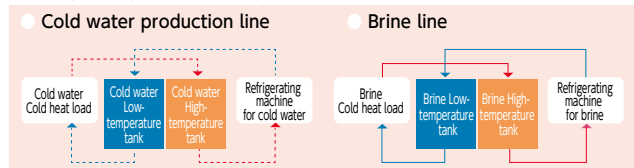
The Information and product images above are as of the end of June 2023.

【 Improving the efficiency of refrigeration systems 】

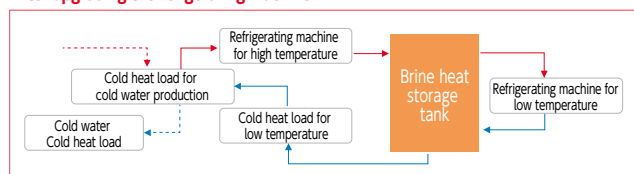
At Kirin Brewery, we reduce energy consumption through improving the efficiency of refrigerating systems. We are implementing a phased approach to the refrigeration system, which cools cooling media in multi-steps, a methodology to maximize energy efficiency of refrigerators.

Improving The Efficiency of Refrigeration Systems

Before upgrading the refrigerating machine Solid line: Brine line Dotted line: cold water line



After upgrading the refrigerating machine



【 CO₂ recovery and reuse in fermentation processes 】

Beer fermentation generates enormous quantities of CO₂ in addition to alcohol. This CO₂ is captured through dedicated pipelines connected to fermentation tanks and reused in subsequent processes, such as beer carbonation, significantly reducing CO₂ emissions to the atmosphere.

► Renewable energy

【 Switch purchased electricity for plants to 100% renewable 】

Kirin Brewery has achieved 100% of renewable energy for purchased electricity at Sendai and Nagoya plants since 2022, Fukuoka and Okayama plants since January 2023, Toride plant since April 2023, and Hokkaido Chitose, Yokohama, Shiga, and Kobe plants, as well as all sales sites, since January 2024. As a result, Kirin Brewery has achieved 100% renewable energy for purchased electricity at all production and sales sites, and the proportion of renewable energy in all electricity usage is 66%.

We aim to achieve RE100 target as soon as possible and replace all electricity used in our global operation with renewable energy in the future.

Kyowa Kirin completed to switch purchased electricity to renewable of its production sites and research laboratories in Japan. Kyowa Kirin expanded the initiative from Takasaki Plant, Bio Production Technology Laboratories, Fuji Research Park, and CMC Research Center, in 2020, to Ube Plant in April 2023. Through these initiatives, Kyowa Kirin Group reduced CO₂ emissions from its operation by more than 55% by the end of 2023 compared with those of 2019 and has already achieved its 2030 target.

Since January 2022, all “Château Mercian” wineries (Château Mercian Katsunuma Winery, Château Mercian Mariko Winery, and Château Mercian Kikyogahara Winery) have achieved 100% renewable energy by applying renewable energy certificates with purchased electricity. At breweries in Australia and New Zealand for Lion, 100% of purchased electricity has been sourced from renewable energy since January 2023.

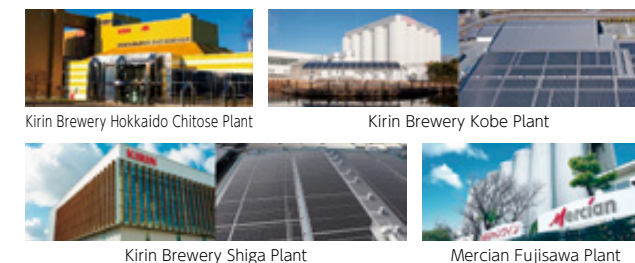


【 Use of large-scale solar power generation 】

Kirin Group values, in its renewable energy procurement, “additionality,” which refers to creating new sources of renewable energy in the world, as well as “ethical procurement,” which refers to considering the environmental impact and human rights in generating energy. Kirin Brewery has introduced large-scale photovoltaic system at all nine plants (eight plants, excluding Yokohama Plant, use PPA model¹). At Mercian Fujisawa Plant, we introduced photovoltaic electricity based on PPA model from March 2023. This initiative has reduced annual GHG emissions by approximately 124 tonnes and increased the proportion of renewable energy in electric power used by Mercian from approximately 5% before introduction to approximately 8%. At Kyowa Kirin, we have introduced large-scale photovoltaic system (1.47MW) based on PPA model at Ube Plant in March 2023. This initiative reduced annual CO₂ emissions by approximately 1,029 tonnes. Vietnam Kirin Beverage introduced a large-scale solar power generation facility (369 KW) using the PPA model, which starts operation in May 2025. This is expected to reduce CO₂ emissions by approximately 340 tonnes annually. Kirin Group Logistics, Kyowa Hakko Bio, and Shinshu Beverage also rent parts of their premises and build roofs to large-scale solar power generation facility companies, contributing to the effective use of their assets and promoting the spread of natural energy.

Additionally, we launched Japan’s first virtual PPA contract in February 2026 and plan to expand this approach further. When procuring renewable energy, we carefully assess financial impacts and sustainability risks across the Group before implementation.

¹ PPA stands for the “Power Purchase Agreement” model and refers to an agreement between a business that sells electricity to users (PPA provider) and the users of electric power. At Kirin Brewery, MCKB Energy Service Co., Ltd., a subsidiary of Mitsubishi Corporation Energy Solutions Ltd., acts as a PPA provider, installing megawatt-class solar power generation facilities on the roofs of breweries, while Kirin Brewery purchases and uses the power generated.



Activities in Response to Significant Risks and Opportunities

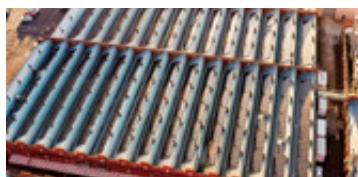
Transition Risk/Policy

【 Use of solar power generation in Australia 】

Lion installed a photovoltaic system at Castlemaine Perkins Brewery in 2019 and to Little Creatures Brewery in Victoria in 2020. Tooheys Brewery, the largest brewery in New South Wales, collaborates with Australian Hotels Association (AHA), contracting PPA with a renewable energy distributor. By leveraging the buying power of Tooheys, AHA was able to introduce renewable energy at a lower price, successfully reducing the electricity unit cost for hotels' pubs from 11.5c/kWh to 6.9c/kWh. In May 2020, Lion became Australia's first large-scale carbon neutral brewer, certified by Climate Active^{*2}. Lion discloses carbon credits used to offset its emissions for a year in the annual report to comply with certification requirement set by Climate Active. The requirement is a new standard for carbon neutral certification in Australia. In New Zealand, Lion has obtained Toitū^{*3} carbon zero certification since 2021.

^{*2} A third-party certification body established by the government of Australia.

^{*3} A third-party certification body established by the government of New Zealand.



Lion's Little Creatures Geelong

【 Introduction of renewable energy certificates 】

Since 2021, Kyowa Hakko Bio has introduced Renewable Energy Certificates (I-REC) at Thai Kyowa Biotechnologies in Thailand. This marked the first adoption of I-RECs in Thailand's pharmaceutical and food industries. By sourcing a portion of the facility's electricity from renewable sources, the initiative reduced annual CO₂ emissions by 9,050 tons in 2024. Renewable energy certificates have also been introduced at Shanghai Kyowa Amino Acid (I-REC) and BioKyowa (REC) (These entities are no longer part of the Kirin Group due to business portfolio restructuring in 2025.)

► Switch of energy source

【 Switch of energy source from heavy oil to natural Gas 】

Most of the fuel we use at breweries is consumed in boilers that generate steam. At all plants of Kirin Brewery and Kirin Beverage, at all plants of Kirin Brewery and Kirin Beverage, and Mercian Yatsushiro plant, we completely switched the fuel to natural gas, which generates less CO₂ emissions than heavy oil. We have achieved more efficient boiler operations through the installation of highly efficient gas boilers. To meet part of the plant's heat and electricity needs, cogeneration systems have been installed to provide both heat and electricity.

【 Introduction of electric boilers 】

Lion began operating electric boilers in 2025. Replacing the existing LPG fuel is expected to reduce CO₂ emissions by approximately 700 tons annually.

【 Launch of green hydrogen demonstration project 】

Kirin Brewery, along with Mitsubishi Corporation, MCKB Energy Service which is sponsored by Mitsubishi Corporation Clean Energy, Takasago Thermal Engineering and Miura, will start a pilot project in June 2026 to switch part of the boiler fuel used at Kirin Brewery's Hokkaido Chitose Brewery from fossil fuels to green hydrogen and utilize green hydrogen-derived steam in the beer production process.

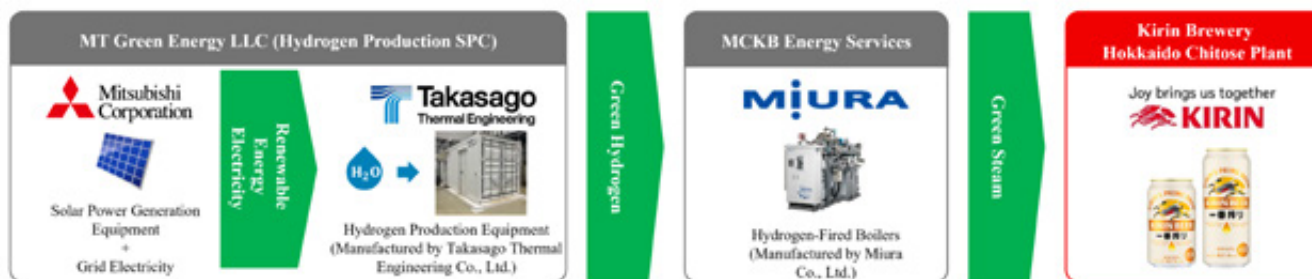
In the beer production process, a large amount of steam is used for wort boiling and other processes. In this project, part of the boiler fuel used to produce steam will be switched from city gas to green hydrogen, with a plan to meet up to approximately 23% of the annual heat demand with hydrogen, reducing GHG emissions by approximately 464 tonnes per year.

► GHG emission reduction through logistics optimization

【 Joint delivery and modal shift 】

The Kirin Group regards logistics as a noncompetitive sector and is actively engaging in initiatives together with other companies. In 2017, Kirin Brewery and Asahi Breweries opened a joint delivery center in Kanazawa City, Ishikawa Prefecture, and launched joint train transportation from plants in western area of Japan. Neither of the companies has plants on the coastal side of Japan Sea, so products previously had to be transported by truck over long distances—of 200 km—from their plants on the Pacific Ocean side. This logistic was inefficient and heavy burdens for truck drivers. Joint transportation using train containers not only reduced

Scheme of the Demonstration Project



Activities in Response to Significant Risks and Opportunities

Transition Risk/Policy

significant GHG emissions but also shortened driving distances of trucks, significantly reducing burdens of drivers. Thus, the joint delivery contributes to solve truck driver shortages of logistic industry, one of the biggest issues in Japanese society. Through these efforts, we have successfully completed modal shifts from long distance truck transportation, equivalent to 10,000 vehicles a year, to railway containers, and we estimate that we can thus annually reduce GHG emissions by approximately 2,700 tCO₂e. In September 2017, we began joint delivery with Asahi Breweries, Suntory, and Sapporo Breweries in the eastern Hokkaido area. We estimate that the Hokkaido case results in a reduction in annual GHG emissions of approximately 330 tCO₂e.*1

*1 Japan Business Federation (Keidanren) "Contribution to Reduction through Global Value Chains, 5th Edition" (in Japanese)
<https://www.keidanren.or.jp/policy/vape/gvc2018.pdf>

【 Optimizing inventory and transportation volumes through AI analysis 】

Kirin Beverage and Asahi Soft Drinks have fully introduced the production, sales, and inventory management service "MOVO PSI" developed by Hacobu and JDSC as of November 1, 2024, to optimize inventory and transportation volumes. "MOVO PSI" analyzes PSI (Production, Sales, Inventory) information between companies using AI (machine learning) to level daily order quantities and replenishment volumes. The demonstration experiment achieved results such as reducing transportation costs by up to about 9.1% and inventory days by up to about 13.2%, further improving logistics efficiency by increasing self-transport loading efficiency and reducing out-of-stock rates.

Additionally, Kirin Beverage and Kao jointly transport between their logistics centers starting from February 2025 and will gradually increase delivery volumes. Specifically, the empty truck sections connecting Kao's Kawasaki Logistics Center (Kanagawa Prefecture) and Koshoku Logistics Center (Nagano Prefecture), and Kirin Beverage subsidiary Shinshu Beverage Plant (Nagano Prefecture) and Kirin Beverage Kawasaki Logistics Center (Kanagawa Prefecture) will be utilized to optimize truck transportation efficiency and reduce GHG emissions (approximately 15% in the corresponding sections).

The logistics industry faces structural issues such as truck driver shortages, and this initiative was realized under three conditions:

1. Both shippers can utilize logistics data.

2. Sufficient load can be secured for return trips.

3. There are available transportation sections to connect. Both companies aim to reduce the number of trucks by over 300 annually and will expand joint transportation sections and promote cross-industry collaboration in the future.

【 Vendor-managed warehouses 】

The use of vendor-managed warehouses can reduce long-distance transportation. As a result, GHG emissions are reduced, contributing to a more sustainable supply chain. With the aim of mitigating the risk of not being able to transport due to an unavailability of trucks and optimizing transportation efficiency, we started a trial operation of raw materials procurement and distribution system using raw materials warehouses (vendor-managed warehouses) close to Kirin Beverage's plants, Shonan Plant and Shiga Plant, in October 2019. By establishing vendor-managed warehouses, raw material and ingredient suppliers can transport desired amount of cargo with their convenient schedules, thereby maximizing efficiency. This initiative has made it easier for plants to cope with sudden changes in production plans and contributed greatly to improving production flexibility.

【 In-line blow aseptic filling machines 】

In the past, we purchased empty PET bottles from container manufacturers and shipped them to plants where we filled them with beverages. With inline blow aseptic filling machines, we mold PET bottles from preforms, thick, compact, semi-processed bottle, in our production processes and fill them under aseptic conditions. This system reduces GHG emissions of empty bottle transportation since trucks can carry much more preforms than empty molded PET bottles. In 2003, we installed preform molding equipment to a soft drink production line at Kirin Distillery, the first case in the Japanese beverage industry, reducing transportation loads of preforms.

【 Importing wine in large bags 】

Mercian imports some of its wine via marine transportation in specially designed 24 kl bags (equivalent to approximately 32,000 750 mL bottles) with low oxygen permeability and fills the wine into bottles in Japan. Compared to importing bottled wine, this method reduces Mercian's GHG emissions from marine transportation by roughly 60% by eliminating needs to transport heavy bottles by sea.

Bottling in Japan enables Mercian to use Ecology Bottles (made with at least 90% recycled glass), lightweight bottles, and PET bottles as containers. This production system reduces resource consumption and GHG emissions significantly throughout the value chain.

▶ GHG emission reduction through lightweight packaging

Making containers and packaging lighters lead to reducing GHG emissions from production and transportation of the containers and packaging. For the "Iced Tea Glass Bottle" a lightweight PET bottle developed for the "Kirin Gogo-no-Kocha" brand, we redesigned the bottle body with diagonal ribs to maintain strength and grip while switching from shrink labels to roll labels. This reduced the amount of plastic used in the labels by approximately 44%, resulting in annual reduction of approximately 117 t of plastic and 849 t of GHG emissions (Details (→P.76)).

▶ Increasing the ratio of recycled materials in packaging

Primary aluminum ingots in the manufacturing process consume a large amount of electricity, resulting in higher GHG emissions compared to recycled materials, posing an environmental challenge. To address this, Kirin Brewery, in collaboration with three domestic beer companies, has fully adopted "EcoEnd™" beverage can lids, which produce approximately 40%*1 fewer GHG emissions during manufacturing. Starting sequentially from February 2025, some beer products sold by each company will use "EcoEnd™" lids. Developed jointly by Toyo Seikan and UACJ, "EcoEnd™" meets the required strength and other characteristics for can lids while promoting the circular use of recycled materials. As a measure to reduce Scope 3 emissions, consideration will be given to adopting it for products other than beer.

*1 Reduction amount per can lid compared to conventional products of Toyo Seikan.

Activities in Response to Significant Risks and Opportunities

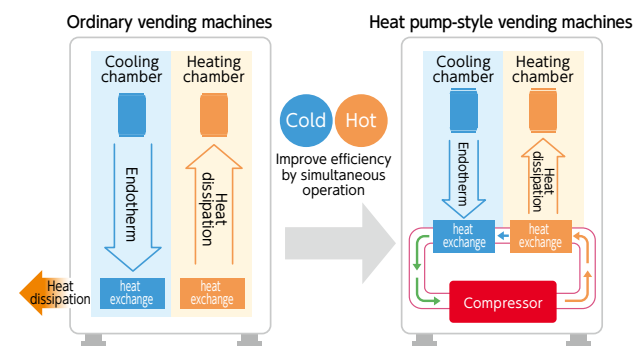
Transition Risk/Policy

► GHG emission reduction at the sales stage

Kirin Beverage is the first in the industry to introduce heat pump type vending machines in 2006, and from 2012, almost all newly installed vending machines for cans and PET bottles are of this type. As of February 2026, we have switched more than 94% of vending machines installed into this type. Heat pump-type vending machines pump up waste heat generated from cooling functions and use the heat to warm up the products. This system reduces electricity consumption compared to conventional vending machines. Some models offer higher energy-saving performance with heat sources not only by recovering waste heat released by the cooling function but also by capturing heat from outside the machine and with improved insulation performance by effective use of vacuum insulation materials. These vending machines have evolved to the point where electricity consumption can be reduced by about 40% compared to 2013. The "Green Power Vending Machines" that we began introducing from January 2024, achieve net-zero CO₂ emissions by obtaining Renewable Energy Certificates (REC) equivalent to the annual energy consumption required for operation, we established an application scheme for acquiring REC and will promote their further introduction.



Heat Pump Function



► Risk mitigation through plant mass propagation technology

The Kirin Group's mass plant propagation technology consists of four underlying technologies: stem propagation technique (organ culture method), sprout propagation technique (PPR method), embryo propagation technique (somatic embryo method), and potato propagation technique (micro tuber method).

This original technology is globally unprecedented. Plant propagation is normally performed using seeds and cutting. These methods result in a limited cultivation period, and the growth rate can be low depending on the plant. However, The Kirin Group's mass propagation technology that we developed makes it possible to significantly increase the number of quality plants with the same characteristics as the parent plant, regardless of the season.

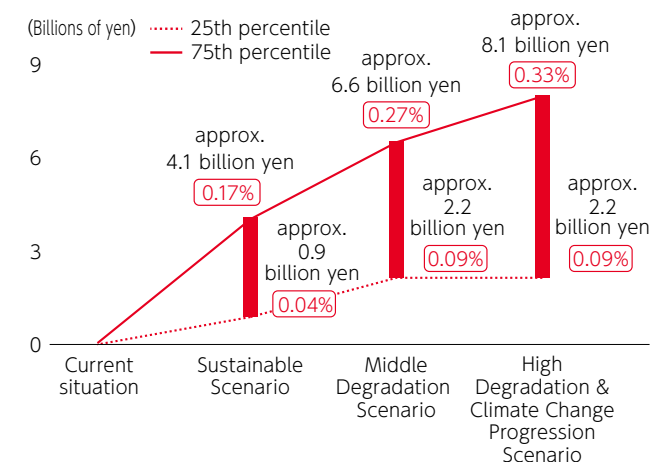
The Kirin Central Research Institute has successfully applied this technology to hops, a raw material for beer, using a world-first approach to promote the formation of axillary buds. By enabling the mass propagation of hops, this technology contributes to stabilizing the supply and improving the quality of raw materials for beer production.

Plant mass propagation technology is expected to have a positive impact on the sustainability of agriculture and ecosystems by accelerating the dissemination of varieties adapted to environmental changes, as well as the mass propagation of new varieties, endangered species, and useful plants.

► Measures against fertilizer price increases

The Kirin Group conducts Rainforest Alliance certification support training for tea farms in Sri Lanka. The training provides scientific methods to increase yields while reducing the use of pesticides and fertilizers (see details on certification support (→P.60)).

Impact on Agricultural Product Procurement Costs from Carbon Pricing in 2050 (percentage of revenue)



*Recalculated with 2025 data

Activities in Response to Significant Risks and Opportunities

Transition Risk/Policy

Manufacturing



Early replacement of currently held assets for decarbonization [medium to long term]

As policies, regulations, and societal expectations around decarbonization intensify, continuing to operate existing fossil fuel-based equipment for their originally planned lifespans may become increasingly difficult. Our decarbonization roadmap anticipates transitioning boiler fuel—used for heat in processes such as wort boiling—from natural gas to GHG-free energy sources like green hydrogen. This would require replacing equipment such as boilers earlier than initially expected. We also anticipate accelerated demand for electrifying our truck fleet, potentially requiring vehicle replacements before full depreciation (Details of the roadmap (→P.30)).

Research & Development Procurement

Manufacturing Supply and Logistics Sales



Cost of regulatory response [medium to long term]

In 2023, the ISSB (International Sustainability Standards Board) finalized the IFRS Sustainability Disclosure Standards (IFRS S1 and S2), establishing a global baseline for sustainability reporting. Jurisdictions worldwide are using these standards as a reference for mandatory corporate disclosure requirements. In Japan, the Sustainability Standards Board of Japan (SSBJ) published standards aligned with ISSB in March 2025, which are expected to be gradually mandated starting from the fiscal year ending March 2027. The Kirin Group operates across multiple jurisdictions, including Japan, Australia, the United States, and the EU, and will be required to report or disclose sustainability information in accordance with each jurisdiction's requirements, including SSBJ standards in Japan. Specifically, we must explain how sustainability issues such as climate change and natural capital impact corporate value, along with our responses to associated risks and opportunities. This necessitates building systems to accurately and promptly collect value chain-wide information and integrate it into management decision-making.

Manufacturing



Cost of responding to pollution-related regulations [medium to long term]

In responding to regulations on environmental impacts, such as contamination caused by pharmaceutical effluents, there is a risk of increased costs due to hiring specialized personnel and engaging external experts for advice and consultation.

Procurement Manufacturing



Cost of responding to land use-related regulations [medium to long term]

Environmental regulations related to land use such as mandatory biodiversity net gain requirements or restrictions on agricultural land conversion to prevent deforestation—may increase compliance costs through hiring specialized personnel and engaging external experts. Additionally, constraints on agricultural production expansion could lead to higher raw material procurement costs.

Research & Development Supply and Logistics Sales



Cost of responding to genetic resource-related regulations [medium to long term]

Compliance with international frameworks governing access to and use of genetic resources may lead to increased costs due to hiring specialized personnel and engaging external experts for advice and consultation.

Procurement Manufacturing



Increase in cost of relocating production and procurement areas due to expansion of protected areas [medium to long term]

The expansion of protected areas for biodiversity conservation may result in existing production facilities or sourcing regions being designated as protected zones, restricting operations. This would necessitate site relocation, significantly increasing costs for capital investment and supply chain restructuring.

Response Strategy

► Identification of trends in technology and implementation of our roadmap with adaptive updates

We will proceed with our transition plan based on our Net Zero roadmap, which is constantly updated considering technological trends.

► Advancement of data collection and calculation methods

We will strengthen the organizational structure responsible for sustainability-related disclosure and enhance data collection and calculation by introducing an IT system.

► Refinement of data calculation

When calculating Scope 3 emissions data, we will replace the conventional estimation method using emission factors based on literature values with calculations based on primary data from suppliers.

► Improvements to environmental management systems

By establishing and appropriately operating an environmental management system, we ensure compliance with environmental regulations and prevent pollution of the natural environment.

The risks of "Cost of responding to pollution-related regulations," "Cost of responding to land use-related regulations," "Cost of responding to genetic resource-related regulations," and "Increase in cost of relocating production and procurement areas due to expansion of protected areas" were newly identified in our 2025 assessment of risks and opportunities based on integrated scenarios (Details (→P.20-21)). Going forward, we will closely monitor regulatory developments and implement appropriate measures to mitigate these risks.

Activities in Response to Significant Risks and Opportunities

Transition Risk/Policy

Activities

► Identification of trends in technology and implementation of our roadmap with adaptive updates

The use of GHG-free energy requires technological innovation and infrastructure development. Although the full-fledged transition will not take place until 2030, we will update existing plant facilities, including boilers and trucks in accordance with regulations. If we misjudge the timing of introducing modern technology, there is a risk that our existing technology and facilities may become obsolete because of regulatory changes or shifts in societal trends. Accordingly, we will develop a long-term roadmap for facility renewal and introduction and constantly update it to ensure a smooth transition.

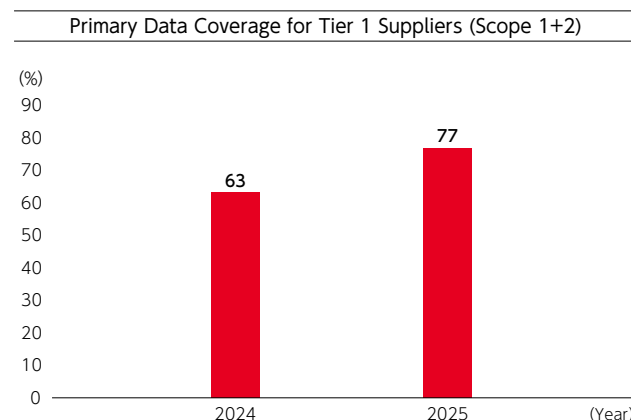
► Advancing data collection and calculation methods

As a global leader in CSV, we established a Corporate Disclosure Section to oversee financial and non-financial disclosures across the Group, building an organizational structure to consistently execute disclosures aligned with international standards such as ISSB and SSBJ. We ensure standards-compliant disclosure of environmental non-financial information through resolute personnel and appropriate management systems. We have also transitioned to system-based data collection methods and begun gathering non-financial data. Previously, we collected Scope 3 data individually from each company and aggregated it manually in the department responsible. The new system reduces the burden of aggregation and calculation, enabling higher-quality disclosures.

► Refinement in data calculation

For Scope 3 data disclosure, we previously relied on secondary data such as literature-based emission factors. Now, leveraging our Supply Chain Environmental Program launched in 2024, we are collecting primary data that reflects suppliers' GHG reduction efforts. By replacing literature-based factors with supplier-specific primary data, our calculations now capture the impact of each supplier's emissions reduction initiatives, enabling disclosures that better reflect actual conditions. Through continuous engagement, the primary data coverage ratio (Tier 1 suppliers' Scope 1+2) reached 77% in 2025. We will continue collaborating with suppliers to identify additional measures to reduce supply chain emissions.

Additionally, through The Consumer Goods Forum (CGF), we collaborate with major domestic food companies on industry-wide initiatives beyond what individual manufacturers can achieve alone. We have established a supplier decarbonization support platform that calculates and provides supplier-specific emission factors based on common methodologies. By standardizing processes such as third-party assurance across companies, the initiative enables the industry to focus resources on actual emissions reduction.

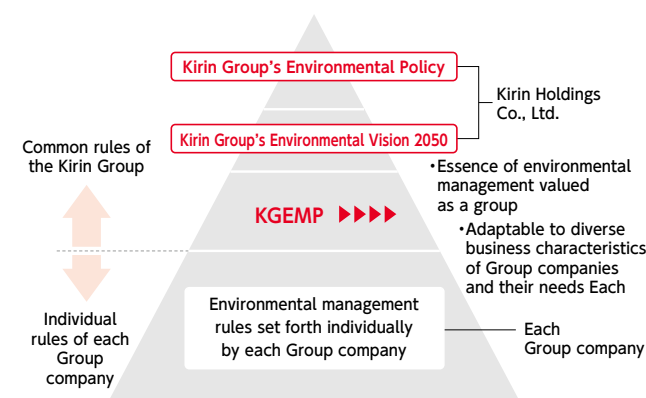


► Establishment and operation of environmental management systems

The Kirin Group has established the "Principle for Kirin Group's Global Environmental Management (KGEMP)," which outlines the essential elements of environmental management that the group values. KGEMP requires the appointment of a Chief Environmental Officer, who is responsible for the overall environmental management of the group, and an Environmental General Manager for each business company, who holds responsibility and authority over environmental matters. The principles mandate compliance with all environmental laws and other relevant regulations across all business sites, reduction of environmental impacts such as GHG emissions and water intake, prevention of pollution, and confirmation of system conformity and legal compliance through internal environmental audits. It includes monitoring the

achievement of goals and conducting management reviews. As of December 2025, 74% of domestic and 71% of overseas business sites have obtained environmental management system certification (including self-declaration of conformity). (details on the status of environmental management certification (→P.93))

Principle for Kirin Group's Global Environmental Management (KGEMP)



Activities in Response to Significant Risks and Opportunities

Transition Risk/Policy

Procurement

Incompatibility with rapid agricultural policy transitions [short to long term]

Sri Lanka's sudden ban on the import of chemical fertilizers and agricultural chemicals in the first half of 2021 (later withdrawn) led to a decline in yields of many agricultural products and caused great damage to the Sri Lankan economy. Political and macroeconomic influences can cause indirect changes in the use of land because of changes to crops produced and reduced yields per unit area. This could encourage deforestation. Without sufficient preparation, the transition to organic farming may weaken agriculture itself and lead to the destruction of the natural environment in the area surrounding agricultural land.

Response Strategy

► Support for training farmers in sustainable agriculture

We recognize that proactively implementing environmental initiatives ahead of policy changes can help mitigate challenges during periods of rapid transition. Through training and support programs, we aim to equip farmers with the knowledge and resources needed to successfully adopt sustainable agricultural practices.

► Appropriate engagement with experts and policymakers

We will strengthen our network with experts and policymakers through active participation in global environmental initiatives, collaboration with environmental organizations through supporting farmers, and participation in research projects with academic societies and government institutions. By leveraging these networks, we will gain knowledge about agricultural technologies, policy trends, and business, while improving agricultural sustainability.

Activities

► Training for obtaining Rainforest Alliance certification

The Kirin Group has supported Sri Lankan tea farms to acquire Rainforest Alliance Certification. From 2022 to 2024, a total of 9 large farms and 4,804 small farms participated in the training. In Sri Lanka, droughts and frequent heavy rains caused by climate change have become serious problems. Urbanization, industrialization, soil erosion and outflow due to the inappropriate use of land are also major concerns. Since large tea farms are often located on steep, sunny slopes, heavy rains not only wash away the fertile soil, but in the past have caused landslides, in some cases taking the lives of people living on the farms. Covering the ground with grass (cover crops) not only enriches the ecosystem but also prevents soil erosion and retains water during droughts, making it an effective adaptation measure to climate change. The training teaches how to identify grasses that negatively affect tea cultivation and ensures that the ground in the tea farms is covered with good, deep-rooted grasses. Training also teaches scientific methods to increase yields while reducing the use of pesticides and fertilizers. In addition to protecting the forests, the reduced expenditure on pesticides and fertilizers improves the farms' profitability and increases the safety of the tea leaves.

Furthermore, the Kirin Group has supported coffee farms to acquire Rainforest Alliance Certification since 2020 in Vietnam, which accounts for about 30% of the coffee beans procured by the Kirin Group. Through the training, we aim to improve coffee quality by creating a system that can flexibly respond to environmental changes such as climate change, reducing water usage, preventing river pollution, considering biodiversity, and introducing regenerative agriculture. Currently, the training is being conducted in Gia Lai Province, Vietnam, and in 2025, 62 training schools were held, with 1486 farms participating.

► Joint investment project with NPO to support regenerative agriculture

Stone & Wood Brewery, a subsidiary of Lion, has launched a joint investment project with an NPO in 2024 to promote the diffusion of regenerative agriculture. The project foundation supports local charitable organizations and provides sustainable agriculture projects, educational support, and community support to farmers

who wish to introduce regenerative agriculture. This initiative has built valuable networks with environmental organizations, experts in regenerative agriculture, and local non-profit organizations.

Metrics and Targets

Targets and Results of Certification Support Training

Metrics	Targets	Results
Number of large tea farms Assisted to obtain certification in Sri Lanka (number of farms that received training)	15 (2022-2024 cumulative)	9 (2022-2024 cumulative)
Number of small tea farms assisted to obtain certification in Sri Lanka (number of farms that received training)	5,350 (2022-2025 cumulative)	6,924 (2022-2025 cumulative)
Number of coffee farms assisted to obtain certification in Vietnam (number of farms that received training)	2,000 (2024-2026 cumulative)	1,822 (2024-2025 cumulative)

Activities in Response to Significant Risks and Opportunities

Transition Risk/Market

Manufacturing Supply and Logistics

Social resistance to fossil-derived raw materials [medium to long term]

The use of plastics is increasingly recognized not only as a driver of marine pollution but also as a contributor to climate change, leading to growing negative perceptions of fossil-based packaging materials. In Japan, heightened attention to plastic-related issues is reflected in the enactment of the "Act on Promotion of Resource Circulation for Plastics" in April 2022. Plastics are derived from fossil resources, increasing concern over climate change and geopolitical risk is expected to further focus attention on GHG emissions from incineration as well as the depletion of fossil-based resources.

Response Strategy

▶ Plastic resource recycling

In line with the "Kirin Group Plastic Policy" formulated in 2019 to address plastic-related issues, we are reducing plastic use and shifting to PET bottles made from recycled PET resin, which represents a major plastic material within the Group. The policy sets a target to increase the recycled content ratio of PET bottles in Japan to 50% by 2027. We have promoted the use of recycled PET resin through mechanical recycling. We are also expanding the adoption of chemical recycling, which enables the production of high-purity recycled PET resin from contaminated used PET bottles and other PET resin products, while improving the efficiency of used PET bottle collection. Through these combined efforts, we reduce the use of fossil-derived raw materials and contribute to the transition to a Circular Economy.

Activities

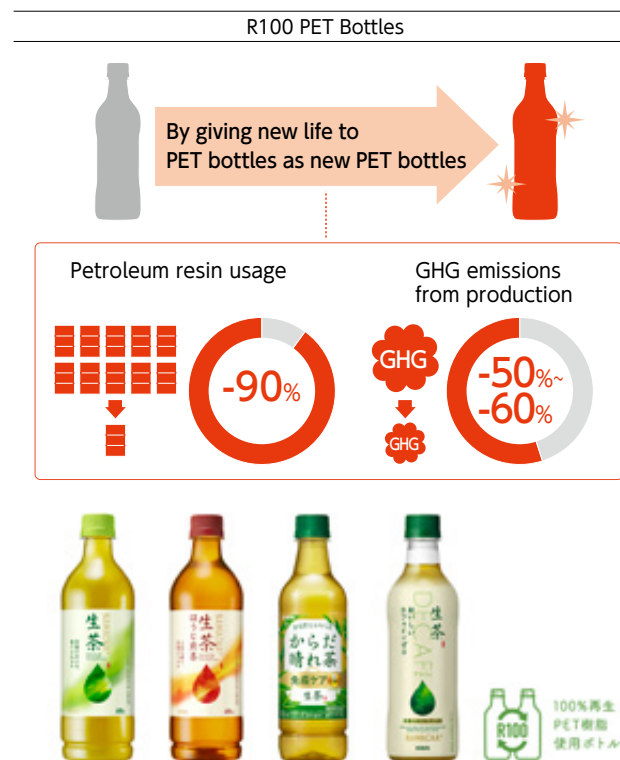
▶ R100 PET bottles

The Kirin Group is gradually expanding the use of "R100 PET bottles," using 100% recycled PET resin for the bottle body.

R100 PET bottles use mechanically recycled resin. By using this resin, we can reduce petroleum-based resin by 90% and GHG

emissions by 50-60%, compared with conventional PET resin.

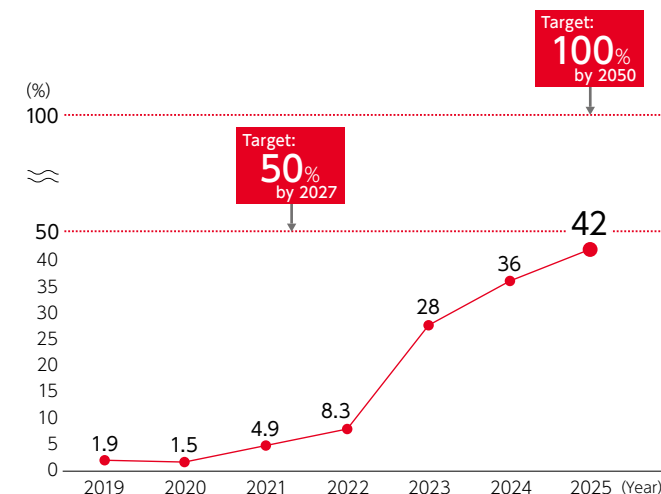
We began using recycled resin for some of the packaging of "Kirin Gogo-no-Kocha Oishii Muto (sugar-free)" in February 2014. Subsequently, in 2019, we began using "R100 PET bottles," which use 100% recycled PET resin, for "KIRIN NAMACHA Decaf." Our use of "R100 PET bottles" as of April 2026 is shown below.



KIRIN NAMACHA : 600 ml (First photo from the left)
KIRIN NAMACHA Hoji Sencha : 600 ml (Second photo from the left)
KIRIN NAMACHA Karada-Hare-cha : 525 ml (Second photo from the right)
KIRIN NAMACHA oishii caffeine Zero : 430 ml (First photo on the right)
* Product photos are as of the end of April 2026.

Metrics and Targets

PET bottles: Trends in The Use of Recycled PET Resin (Japan)



Activities in Response to Significant Risks and Opportunities

Transition Risk/Market

Procurement



Concerns about deforestation [medium to long term]

As recognition of the importance of forests as GHG sinks increases, concerns about business activities that lead to deforestation are likely to increase, potentially leading to a stronger negative perception. The worst forest fires in Australia's history in 2019-2020 and the wildfires in California in 2025 have brought renewed attention to the relationship between climate change and forests.

The United Nations Food System Summit was held in 2021. The EU's "Farm to Fork" strategy and Japan's "Green Food System Strategy" have strengthened the focus on sustainable agricultural production. The COVID-19 pandemic and geopolitical developments have increased awareness of food security. Growing interest in sustainable agriculture is expected to lead to heightened attention to forest-related issues as well.

Activities

► Promotion of sustainable forestry and agriculture

The Group established the use of sustainable paper in the "Action Plan for the Sustainable Use of Biological Resources," and in 2020, achieved the use of FSC-certified paper or recycled paper for major paper containers and packaging in the domestic beverages business (Kirin Brewery, Kirin Beverage, and Mercian). In the 2021 revision of the "Action Plan for the Sustainable Use of Biological Resources," the scope of companies was expanded, and initiatives have been further advanced.

In terms of sustainable agriculture, we support the acquisition of Rainforest Alliance certification, which promotes more sustainable farming practices, at tea farms in Sri Lanka and coffee farms in Vietnam. Since August 2021, we have been selling a year-round product in the Kirin Gogo-no-Kocha line that uses tea leaves from farms with Rainforest Alliance certification.



► Creation of high-quality forest-based carbon credits

In March 2025, The Kirin Group started a joint research project with Hitachi to create forest-based carbon credits. By utilizing the Kirin Group's unique "mass plant propagation technology" and Hitachi's "natural measurement technology and digital technology related to MRV (Measurement, Reporting, and Verification)," we aim to generate high-quality forest-based carbon credits while achieving both GHG reduction and biodiversity conservation in reforestation areas. (Related column [→P.63](#))

► No-Deforestation Commitment

The Kirin Group aims to source raw materials without deforestation and has identified coffee, palm oil, and paper as high-risk commodities. For these commodities, we verify that raw materials are produced on land not subject to deforestation since the cut-off date (2020); and establish and strengthen management systems, including traceability and monitoring. Additionally, we have assessed risks based on TNFD's LEAP approach for palm oil and coffee and adopted FSC-certified paper for paper containers and packaging, advancing concrete actions to prevent deforestation (Details on no-deforestation commitment [→ P.30](#)).

Response Strategy

► Promotion of sustainable forestry and agriculture

The Kirin Group will continue efforts to expand sustainable forestry and agriculture, increasing the share of certified paper and raw materials sourced from certified farms.

► Creation of high-quality forest-based carbon credits

We will conduct joint research aimed at creating forest-based carbon credits.

► No-Deforestation Commitment

As part of our SBT Net-Zero recertification (certified in March 2026) and the establishment of our FLAG target in 2025, the Kirin Group will advance its no-deforestation commitment.

Column: R&D Strategy in the Environmental Field and Advancing Forest-Based Carbon Credits

The Kirin Group is committed to addressing global social challenges through cutting-edge technologies such as fermentation, biotechnology, and AI-driven drug discovery. In addition to basic research, we are investing in environmental R&D grounded in plant science. Recently, we have undertaken joint research aimed at generating high-quality forest-based carbon credits (see previous page). In this column, we spoke with Daisuke Fujiwara, Senior Executive Officer of Kirin Holdings (R&D Strategy, President of R&D), to explore the significance of these initiatives within the Group's R&D strategy, as well as recent developments and future outlook.

— How do you position environmental initiatives within the R&D strategy, and what is the significance of addressing them through corporate research?

We have been engaged in plant research since 1980. While we possessed world-class capabilities in mass plant propagation technology, for many years we struggled to identify clear commercial applications and translate our expertise into economic value. In recent years, however, the emergence of the carbon credit market has transformed the carbon absorption capacity of plants into a measurable economic value. This represents a major turning point—our accumulated technological assets are now aligned with addressing social challenges and transformed into business opportunities. R&D in the environmental field represents both a "social responsibility" and a "new growth opportunity." Under our Creating Shared Value (CSV) philosophy, we have consistently sought to create both social and economic value. Many of our young researchers are deeply passionate to address social challenges such as an environmental conservation and well-being. I believe the role of a corporate research institute is to channel this passion and technical capability into sustainable business.

— How do you evaluate and balance short-term profitability with long-term social value and corporate value creation in environmental R&D investments?

We plan to expand our R&D expenditures through 2035, with investments in the environmental field positioned as a key priority. However, we are not an academic institution. Our investment must

be supported by a clear path to financial return. For this project, our goal is to clarify the business direction within ten years—preferably within five years. From the perspective of accountability to our investors, I believe this is a reasonable timeframe. We aim to create business value that is sustainably scalable through social implementation. Forest-based carbon credits represent an area where short-term milestone management can be balanced with a long-term growth vision, which is a key factor in our investment decision.

— Could you explain the aims of the joint research with Hitachi, Ltd.?

While it has been challenging to monetize plant technologies on their own, the emergence of clearly defined value of carbon credits provided the starting point for this collaboration. However, generating high-quality credits requires advancements in MRV (Measurement, Reporting, and Verification), which cannot be achieved by our own company alone. Partnering with Hitachi, which has strengths in digital technologies, was therefore an optimal approach. At present, we are conducting trials at experimental sites to visualize forest value, assess biodiversity impacts, and evaluate economic viability. By establishing rigorous monitoring metrics in plantation forests, we aim to achieve both environmental integrity and economic rationality.

— What are the intended uses for the credits generated, and what is the long-term vision?

First, we intend to use the credits to offset our own emissions. If surplus credits are generated, we would consider external sales. We are not limited to the J-Credit framework. We are also exploring international carbon markets over the longer term. As implementation of the Paris Agreement Article 6 rulebook progresses, demand for high-quality credits that meet international standards is expected to grow. Our joint research with Hitachi represents a strategic step toward future market opportunities.

— How do you view the impact on local communities and industries?

This initiative also represents an effort to create new economic value for forests in collaboration with the forestry industry. By building a value chain from seedling supply through reforestation to

credit generation, we aim to contribute to the revitalization of local economies. Enhancing the value of forests is expected to align with initiatives such as watershed conservation activities and support the development of sustainable regional models. We position this as a foundation for integrated initiatives that generate "positive impacts" for both nature and people from multiple perspectives.

— Finally, could you share a message with stakeholders?

Research is the pursuit of bringing to life a future that can only be scientific foresight. In corporate research, we must not only realize such a future, but also implement it widely in society and connect it to sustainable profits. While maintaining perspective as both a researcher and a business leader, I am committed to building a research framework that clearly defines pathways to financial value creation. The environmental field cannot be addressed by a single entity alone. That is why we collaborate with partners to transform technology into social value and then into economic value. Our R&D serves as a growth engine that enhances corporate value by addressing social challenges, including environmental issues. We would greatly appreciate your continued support from a long-term perspective.



Daisuke Fujiwara

Senior Executive Officer
R&D Strategy, President of R&D Division

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 CO₂ emissions by 59% compared to traditional cans. The 18-month trial expects to sell 15 million cans and reduce CO₂ emissions by 1,235 t. Furthermore, in 2026, sales of 6 million cans are projected, with an estimated reduction of 494 t of CO₂ 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 CO₂ reduction impact of products, to encourage environmentally conscious consumer behavior.

Kirin Beverage participated in Kanagawa Prefecture’s decarbonization campaign “Kanagawa CO₂CO₂ 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

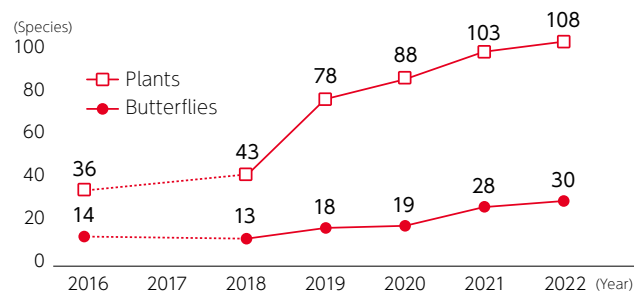
At Château Mercian, we are converting vineyard land from derelict farmland to cover cropping to promote biodiversity conservation. Grasslands, which occupied approximately 30% of Japan's land area 130 years ago, have now decreased to just 1% of the land. Grasslands harbor an extremely high proportion 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 Tengu-sawa 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 Tengu-sawa 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 Obanzakura 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°C 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.

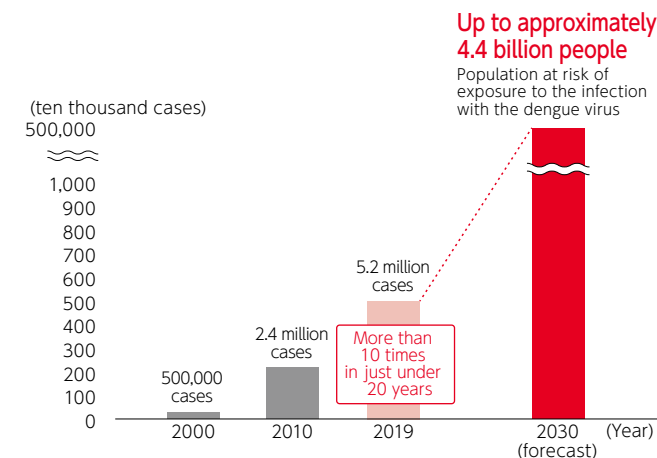
► Contribution with products to counter heatstroke

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.

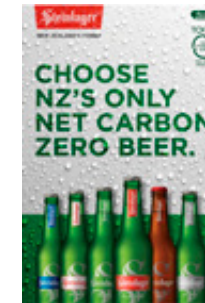
In Australia, Lion is preparing to acquire carbon neutral certification through Climate Active for many key products. In order to obtain certification, Lion is working to comply with the requirement that it must offset all GHG emissions from the complete life cycle of the product, including emissions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



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 CO₂ reduction impacts of its products to encourage behavioral change among consumers.

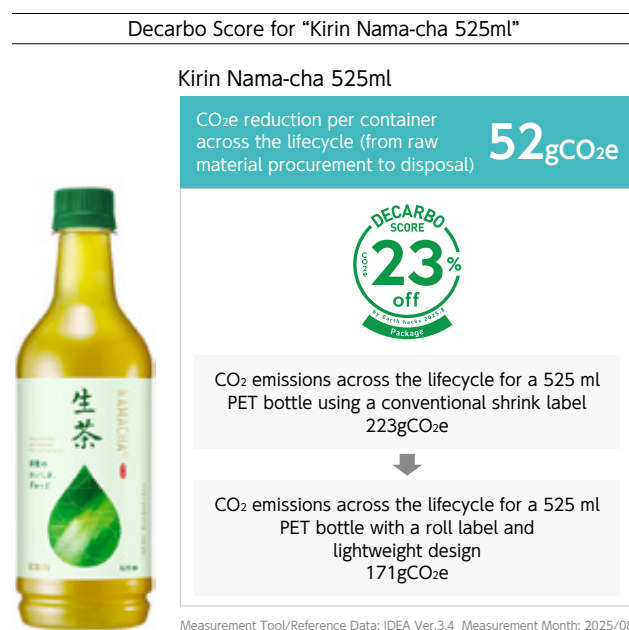
Kirin Beverage introduced the “Decarbo Score,” an indicator that quantifies product-level CO₂ reduction. This enables consumers to contribute to decarbonization through everyday purchases. Developed by Earth hacks Inc., the metric is based on ISO 14040/14044 standards and, in principle, quantifies CO₂ emission reductions across the product life cycle, from raw material procurement to disposal. For example, “Kirin Nama-cha 525ml” indicates a reduction of 52g CO₂e per bottle, making its contribution to decarbonization easily understandable.

Leveraging this initiative, Kirin Beverage participated in Kanagawa Prefecture’s decarbonization campaign, “Kanagawa CO₂CO₂ 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 CO₂CO₂ 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.



► 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 N₂O 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 N₂O 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 N₂O 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-CO₂/10a. 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)).

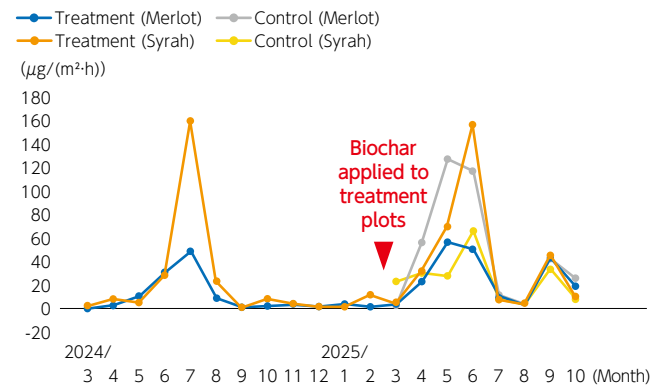
Activities in Response to Significant Risks and Opportunities

Business Opportunities/Products and Services

Biochar Made from Grapevine-Pruning Residues



Annual N₂O 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

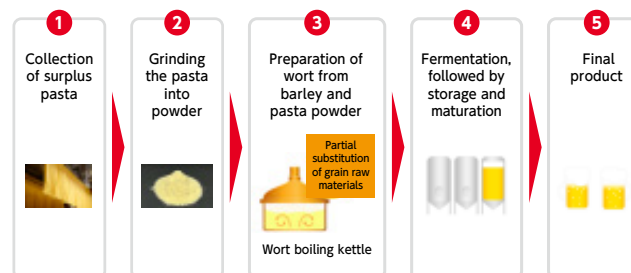
We display certification labels using certified raw materials and packaging to clearly communicate the environmental attributes and enhance consumer appeal.

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



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

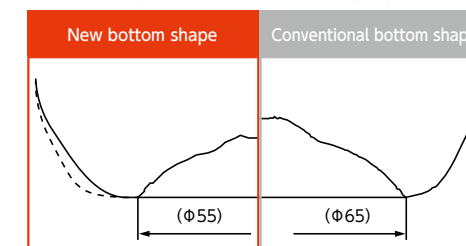
► Lightweighting of PET bottles for wine

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 CO₂ 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.

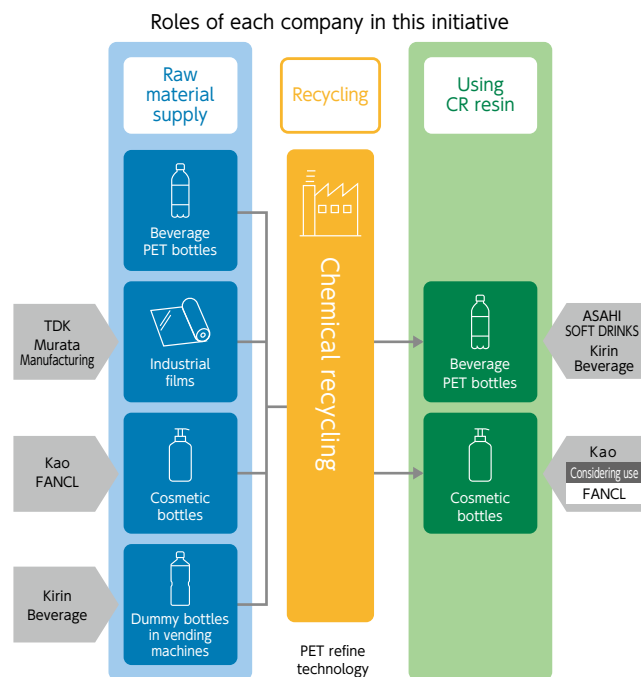
Activities in Response to Significant Risks and Opportunities

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' CO₂ 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 CO₂CO₂ 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 intimated. 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)

Scope 1+2 emissions

(unit: tCO₂e)
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%

Scope 3 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
	9 Transportation and distribution (downstream)	352,676
	10 Processing of sold products	0
Downstream	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

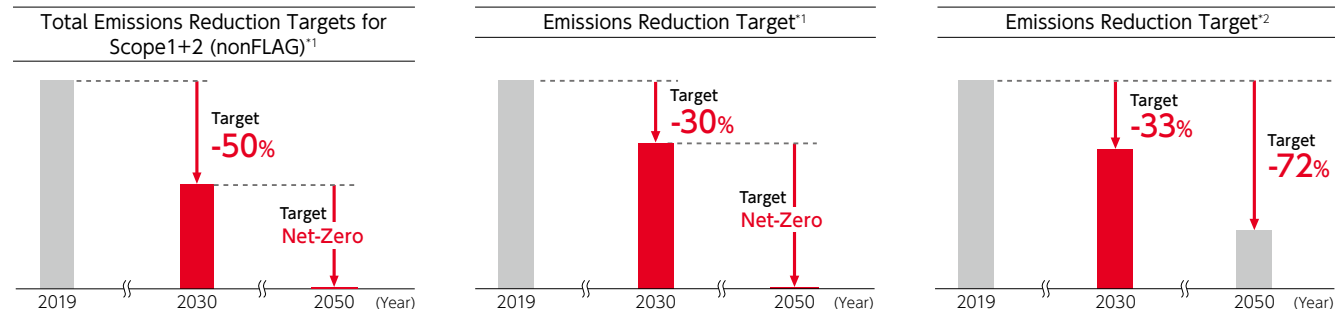
Total

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%

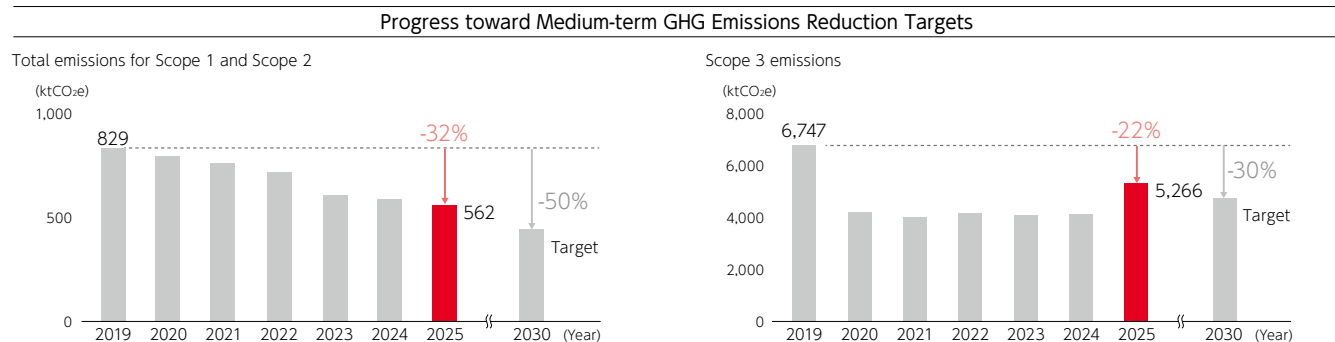
Please refer to the following for other indicators

- 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

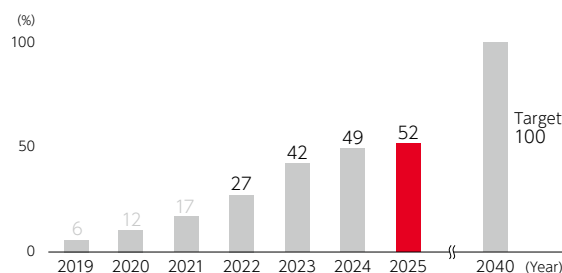
^{*1} In December 2020, we upgraded our previous "SBT for 2°C" target, and received approval for our "SBT for 1.5°C" target.^{*2} FLAG (Forest, Land and Agriculture): Emissions from forest, land, and agriculture. Based on SBTi standards, FLAG-related emissions within Scope 1+2+3 are managed separately.

Progress



Progress toward 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 soil 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"

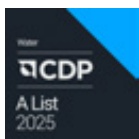
Metrics and Targets Corresponding to Various Disclosure Frameworks

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 (m³) 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"
BC3.1 (Additional sector guidance – Beverages)		Quantity of high-risk natural commodities(tonnes) sourced under a sustainable 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 "Biological 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"
		Water use Volume of water consumed (m³), 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
		Placeholder Indicator (species extinction risk)	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
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, details 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 pears¹ and approximately 310,000 Kochi Prefecture Ponkan citrus fruits¹, and generated approximately ¥11.7 million² 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



2025 CONSTITUENT MSCI JAPAN
ESG SELECT LEADERS INDEX



Appendix



Environmental Policy

Kirin Group's Environmental Policy

Basic Policy

The Kirin Group places sustainable business growth based on solving social issues at the core of its management, and enriches society and the Earth for future generations through positive impact on people and the environment.

Action Policy

In all aspects of our business activities, we have set ambitious targets related to solving social issues connected to the environment as one of the most material management issues, and we will focus on achieving these targets under the leadership of top management and through the participation of all employees.

■ Compliance

We will comply with all environmental laws, regulations, and agreements as well as voluntary control standards related to our business activities with high moral values.

■ Technological development

In addition to developing and adopting innovative technologies and methods, we will work with our customers and broad stakeholders to resolve issues on a sustainable basis.

■ Environmental management

We will develop an environmental management system and make continuous improvements in accordance with our business strategy.

■ Fostering human capital

We will continuously develop human resources who can create and implement a positive impact on the environment and society as a whole, beyond our own company and its framework.

■ Communication

We will disseminate highly transparent and reliable information and broadly promote communication with stakeholders.

Revised on October 2021

Policies on Biological Resources

Kirin Group's Declaration of Support for Biodiversity Conservation

Kirin Group relies on the bounty of nature to make products. We utilize the power and wisdom nature has to offer in conducting its business activities. Because of that, we recognize the importance of conserving biodiversity as business challenges. Kirin Group actively pursues a broad range of activities to protect biodiversity in order to continue offering new joys of "food and well-being" into the future.

1. Kirin Group promotes sustainable use of resources while ensuring conservation of biodiversity

The Kirin Group is committed to sustainable use of resources while taking biodiversity into consideration in all of its business activities so that all people around the world may continue to enjoy the bounty of nature.

2. Kirin Group makes effective use of its technologies

As a company that offers new joys of "food and well-being," the Kirin Group makes effective use of its technologies when conducting business activities to contribute to the sustainable use of resources and protection of biodiversity.

3. Kirin Group works in cooperation with stakeholders

Kirin Group adds a biodiversity perspective to the environmental protection activities which have continuously been engaged in and works in cooperation with customers and local partners to continue conserving biodiversity.

4. Kirin Group properly complies with treaties and laws

Kirin Group complies with treaties, laws and regulations concerning biodiversity and strives to help people enjoy the blessings of biodiversity worldwide.

Established and released on October 2010

Kirin Group's Guidelines on Sustainable Sourcing of Biological Resources

Purpose

The purpose of the Guidelines is to present the fundamental principles of the Group so that it can continue to ensure the "sustainable sourcing of biological resources" based on the Kirin Group's Declaration of Support for Biodiversity Conservation.

Applicable Scope

The Guidelines apply to biological resources procured by the Kirin Group's operating companies in Japan for which the Group has specified that there is risk of illegal deforestation, environmental destruction and such like based on risk assessment performed.

Guidelines on Sustainable Sourcing of Biological Resources

Kirin Group procures applicable biological resources based on the following principles.

1. Resources that the Group has confirmed; not to derive from a plantation developed illegally, to have been produced through appropriate procedures in compliance with the laws and regulations of the areas where the raw material is produced.
2. Resources deriving from plantations, forests, etc. that have been certified by credible third parties.
3. Resources that have not been produced by entities which are considered to be involved in environmental destructions.^{*1}

Implementation and Operation

The Kirin Group regularly revises these Guidelines based on biodiversity risk assessments for products sourced, taking into account the issues associated with biological resources and the fact that sourcing conditions differ for each region. In addition, the Kirin Group also separately formulates action plans and implements them in phases, taking into consideration the unique characteristics of each country or region. When implementing initiatives, the Kirin Group cooperates with suppliers, specialists, NGOs, and other stakeholders, and adopts a long-term perspective that considers support to enable people working in areas producing raw materials to transition to means of production that take into account the sustainability of biological resources.

Information Disclosure and External Communication

The Kirin Group is committed to maintaining transparency and disclosing the progress of its initiatives through sustainability reports, Home Pages, and other methods. At the same time, the Kirin Group also utilizes appropriate external communication to promote understanding among customers, partners, and society, and thereby increase the use of sustainable biological resources.

^{*1} Reference is currently made to the FSC's Policy for the Association of Organization with FSC.

Established on December 2012, Released on June 2013

Kirin Group Action Plan for the Sustainable Use of Biological Resources

In order to achieve both global and business sustainability in all raw materials we handle, we will utilize the inherent regenerative power of the natural environment, including land and sea areas, and the balance of ecosystems, and work to conserve and enhance them, and aim for sustainable use of biological resources that does not involve deforestation.

By promoting the production and procurement of certified products and raw materials through regenerative agriculture^{*2}, we will support the reduction of greenhouse gas emissions, the restoration and conservation of biodiversity and the efficient and sustainable use of water resources in an integrated manner, ensure the traceability of raw materials from production to use and increase transparency and reliability, while supporting our suppliers to become economically independent and produce on a long-term basis.

Black Tea

Kirin Holdings aims to enhance sustainability of tea farms in Sri Lanka, the main raw material production area from which Kirin Beverage Company, Limited sources tea leaves.

- Kirin Holdings will support for farms to get Rainforest Alliance Certification by Sri Lankan tea farms that supply tea leaves, and thus increase the number of farms with certification^{*3}.
- Kirin Holdings will enhance awareness through year-round products featuring the Rainforest Alliance Certified label.
- Kirin Holdings will conserve water sources at Sri Lankan tea farms.

Other Policies

Paper and Printed Materials

Kirin Holdings will maintain 100% usage of FSC-certified paper or recycled paper, which it achieved at Kirin Holdings Company, Limited, Kirin Brewery Company, Limited, Kirin Beverage Company, Limited, and Mercian Corporation in 2020, and Kirin Holdings will also expand this initiative to cover all Group companies, including those outside of Japan.

- For paper containers and packaging^{*4}, by 2030, Kirin Holdings will 100% use paper that has been confirmed to be from sustainable sources^{*5*6}.
- For other paper, Kirin Holdings will use paper that has been confirmed to take sustainability into consideration or recycled paper^{*7}.

Palm Oil

In Kirin Holdings' domestic businesses, Kirin Holdings will ensure that 100% of transactions for palm oil used as a primary or secondary raw materials have RSPO certification.

- For palm oil used as a primary raw material, Kirin Holdings will use RSPO Credits^{*8}. By 2030, Kirin Holdings will begin sourcing RSPO-certified palm oil^{*9}, and gradually transition palm oil procurement.
- For palm oil used as a secondary raw material, Kirin Holdings will use RSPO Credits. Kirin Holdings will work together with the RSPO, suppliers, NGOs, and various stakeholders to ensure that Kirin Holdings' suppliers are able to use RSPO-certified palm oil as a raw material.

Coffee

Kirin Holdings aims to enhance sustainability of coffee farms in Vietnam, the main production area from which Kirin Beverage Company, Limited sources coffee beans.

- Kirin Holdings will support to get Rainforest Alliance Certification by Vietnamese coffee farms, and thus increase the number of farms with certification.
- Kirin Holdings will enhance the ability of Vietnamese coffee farms to conserve water.

Soybeans

Kirin Holdings will use soybeans and processed goods^{*10} from highly sustainable farms at Kirin Brewery Company, Limited.

- Kirin Holdings will determine farms from which it will source soybeans.
- Kirin Holdings will confirm the sustainability of the soybean farms that it has determined.

^{*2} Kirin's regenerative agriculture is a form of agriculture that contributes to climate change mitigation by restoring soil health and enhancing its carbon sequestration effect, as well as restoring and maintaining biodiversity through the efficient and sustainable use of water resources. Kirin will promote regenerative agriculture according to the characteristics of each agricultural raw material.

^{*3} Kirin Holdings will set specific targets in Kirin Holdings' CSV commitment.

^{*4} Excludes limited-edition products, small-lot product varieties, special shapes, imported products, products regulated by law, etc.

^{*5} Kirin Holdings will prioritize FSC-certified paper. When the use of FSC-certified paper is cannot be used, Kirin Holdings will use paper complying with the following standards, in order: paper made with wood from FSC-managed forests (Controlled Wood), PEFC certification (for regions where sustainability has been confirmed only), and the Kirin Group Guidelines for the Procurement of Sustainable Biological Resources. When using paper that has not been third-party certified, etc., Kirin Holdings will confirm that sustainability has been taken into consideration through supplier surveys, etc.

^{*6} This will apply to the following operating companies: Kirin Holdings Company, Limited, Kirin Brewery Company, Limited, Kirin Beverage Company, Limited, Mercian Corporation, Kyowa Kirin Co., Ltd., KYOWA HAKKO BIO CO., LTD., Lion Pty Limited, and Koiwai Dairy Products CO., LTD. Kirin Holdings will determine the applicable container types, target year for achievement, etc., in Kirin Holdings' CSV commitment.

^{*7} This will apply to the operating companies listed in *5, as well as the following operating companies: KIRIN GROUP LOGISTICS CO.,LTD. Kirin City Co., Ltd., and INTERFOOD SHAREHOLDING COMPANY Each company will set specific targets.

^{*8} Book and Claim model

^{*9} Complying with one of the following: IP (Identity Preserved), SG (Segregation), or MB (Mass Balance)

^{*10} Soybean protein

Policies on Biological Resources

- Kirin Group's Principles of Managing Access to Genetic Resources

Policies on Plastic

- The Kirin Group Plastic Policy

Consideration of the Environment in Product Development

- Guidelines on Environmentally Conscious Design for Containers and Packaging

Carbon Credit Policy

- Kirin Group Carbon Credit Policy

For details on environmental policies, including the above, please refer to the following:

https://www.kirinholdings.com/en/sustainability/materiality/env/e_policy/

Kirin Group Sustainable Procurement Policy

Please refer to the following:

<https://www.kirinholdings.com/en/sustainability/materiality/supplychain/csr/>

Kirin Group Sustainable Supplier Code

Please refer to the following:

https://www.kirinholdings.com/en/sustainability/files/pdf/kirin_groupsustainable_supplier_code_24_en.pdf

Established on February 2013

Revised on June 2025

Policy Recommendations

Participation in the RE100 Climate Group policy working group to create recommendations for the Japanese government

As a member of RE100, Kirin Holdings participated in the policy working group from January to March 2024 to create recommendations for the Japanese government, including expanding renewable energy capacity to achieve the 1.5°C target. A message from the then-Senior Executive Officer of Kirin Holdings, Hiroshi Fujikawa is posted on the Climate Group website. <https://www.there100.org/our-work/news/re100-calls-japanese-government-urgently-grow-renewables-capacity>

Participation in the “Japan Business Coalition for a Global Plastics Treaty”

Kirin Holdings has been participating in the “Japan Business Coalition for a Global Plastics Treaty” since its establishment in November 2023. This coalition conducts policy advocacy with the Japanese government to establish an ambitious international treaty aiming to eliminate plastic pollution.

In July 2025, we submitted a request to the Ministry of the Environment, the Ministry of Economy, Trade and Industry, and the Ministry of Foreign Affairs, who are in charge of treaty negotiations, urging the Japanese government to make every effort to draft a legally binding and ambitious international treaty at the fifth session of the Intergovernmental Negotiating Committee (INC-5.2) to end plastic pollution.

Signing the “Business Statement for COP15 (Mandatory Assessment and Disclosure of Nature Impacts)” by Business for Nature

Kirin Holdings endorsed and signed the “Business Statement for COP15” on October 18, 2022, which was initiated by Business for Nature and called on companies worldwide, including our own, to support the mandatory assessment and disclosure of impacts and dependencies on nature by all businesses and financial institutions.

This endorsement was made in the context of the 15th Conference of the Parties to the United Nations Convention on Biological Diversity (COP15), held in Montreal, Canada in December 2022, with the goal of halting and reversing biodiversity loss by 2030.

Expressing support for the Ministry of Economy, Trade and Industry’s “GX League Basic Concept”

Kirin Holdings expressed support for the “GX League Basic Concept”

announced by the Ministry of Economy, Trade and Industry in March 2022. The “GX League” is a platform where companies actively involved in Green Transformation (GX) collaborate with government, academia, and finance players to discuss and implement economic and social system transformation and create new markets.

Joining the “30by30 Alliance for Biodiversity”

Kirin Holdings joined the “30by30 Alliance for Biodiversity,” led by Japan’s Ministry of the Environment, on April 8, 2022. The “30by30” initiative aims to conserve and protect 30% of the Earth’s land and sea areas by 2030, contributing to biodiversity conservation. We believe that Kirin Group’s biodiversity conservation activities and the knowledge gained from them can contribute to other effective area-based conservation measures (OECMs).

Participation in WWF Japan’s “Plastic Circular Challenge 2025”

On February 22, 2022, Kirin Holdings participated in the “Plastic Circular Challenge 2025,” a framework called for by WWF Japan to address plastic issues related to containers and packaging, and disposable plastics by 2025. In October 2025, the initiative developed a “Joint Proposal for Promoting Advanced Resource Circulation” addressed to the Minister of the Environment and the Minister of Economy, Trade and Industry. Kirin Holdings, as a representative company, submitted the proposal to officials at the Ministry of the Environment and exchanged views. <https://www.wwf.or.jp/campaign/pcc2025/> (in Japanese)

Endorsement of the Japan Climate Action Summit 2025 Declaration: “Leading the Transition to a Decarbonized Society — We Will Never Stop —”

In November 2025, Kirin Holdings endorsed the Japan Climate Action Summit 2025 Declaration: “Leading the Transition to a Decarbonized Society — We Will Never Stop —,” released by the Japan Climate Initiative. Released on the 10th anniversary of the Paris Agreement and ahead of COP30, this declaration reaffirm the significance of mission and determination of non-state actors in Japan to overcome the climate crisis, with endorsement from 340 organizations. To sustain a future beyond 2030 where the 1.5°C target is achieved, we pledge to accelerate energy efficiency, maximize the expansion of renewable energy, and strengthen collaboration among stakeholders

both domestically and internationally, and lead a resolute transition to a decarbonized society.

Participation in the Climate Leaders Coalition

Lion continues to participate in the Australian Climate Leaders Coalition (CLC), which is committed to leading corporate responses to climate change through transparent and meaningful action on mitigation and adaptation. By participating in the CLC, we call for policies and investments that enable Australia to transition to a zero-carbon economy. As a participant, we commit to measuring and publicly reporting emissions, setting public emission reduction targets, and collaborating with suppliers to reduce emissions.

Participation in the Study Group on Non-Financial Information Disclosure

Since 2021, Kirin Group’s CSV Senior Executive Officers have been participating in the Ministry of Economy, Trade and Industry’s Study Group on Non-Financial Information Disclosure. This study group examines the ideal form of disclosure and disclosure media that lead to high-quality dialogue with users of non-financial information and aims to accurately communicate Japan’s position on non-financial information disclosure and guidelines internationally. The CSV Senior Executive Officer also participated in a panel discussion at the “TCFD Summit 2020” (hosted by the Ministry of Economy, Trade and Industry, co-hosted by WBCSD and the TCFD Consortium) held on October 9, 2020.

In 2020, we served as a member of the sector-specific guidance review committee (food sector) and contributed to the “TCFD Guidance 2.0” published by the TCFD Consortium on July 31, 2020. From 2022 to 2023, we also participated in the Ministry of the Environment’s “Nature Positive Economy Study Group.” This study group aimed to address the integrated resolution of issues such as climate change and the Circular Economy, considering the relationship between biodiversity, natural capital, and business, based on Japan’s industrial structure.

Participation in Policy Recommendations to the Government through the Renewable Energy Institute

In November 2025, Kirin Holdings participated in the development of recommendations on improving systems and rules for expanding the use of renewable energy, led by the Renewable Energy Institute, as a company proactively committed to advancing renewable energy use.

Voluntary Participation Leading to Policy Recommendations

Participation in Consortiums and Government Activities (Organization Names / Activity Content)

RE100

We are a member of the international initiative "RE100," which consists of companies aiming for 100% renewable energy for electricity. We are working towards achieving 100% renewable energy for electricity by 2040.

Japan Climate Initiative (JCI)

We participate in this network to strengthen information sharing and dialogue with companies and local governments that are actively working on climate change measures.

TCFD Consortium

Kirin Holdings has been a member of the "TCFD Consortium" since its establishment in 2019. In 2020, we served as a committee member for the sector-specific guidance review committee (food sector).

We Mean Business Coalition

Kirin Group is committed to setting emission reduction targets approved by SBTi and to reporting climate actions in mainstream reports using a recognized framework as CDSB, which are advocated by We Mean Business Coalition.

Science Based Targets Network

SBTN sets scientifically grounded targets for natural capital and aim to achieve a sustainable global system. Kirin Holdings has set targets aligned with the SBTi (Science Based Targets initiative) standards for GHG emission reduction, obtaining the "SBT1.5°C" certification in 2020 and the "SBT Net Zero" certification in 2022. Subsequently, in light of the transformation of the group's business portfolio and the revision of the SBTi's net-zero standards due to changes in the external environment, we reacquired "SBT Net-Zero" certification in March 2026 and established the "FLAG (Forest, Land and Agriculture) target," which focuses on reducing emissions associated with deforestation and land-use change.

We are the first company in the Japanese pharmaceutical and food industries to participate in the Corporate Engagement Program (CEP) of SBTs for Nature, which discusses rule-making for the new initiative for setting natural capital targets following the SBTi.

United Nations Global Compact

Kirin Group has been participating in the United Nations Global Compact (GC), the world's largest sustainability initiative where the UN, companies, and organizations collaborate to achieve a sustainable society through the practice of 10 principles in human rights, labor, environment, and anti-corruption, as well as the promotion of SDGs, since September 2005.

UN Global Compact Network Japan

The Global Compact Network Japan (GCNJ), the Japanese network of the UN Global Compact, has been operating as a platform for promoting the initiative with participation from many companies and organizations since its establishment in 2003. In June 2025, CEO Yoshinori Iozaki assumed the position of Representative Director. For more information, please visit the GCNJ website. <https://www.ungcnj.org/gcnj/greeting.html> (in Japanese)

Japan Sustainability Local Group (JSLG)

Kirin Holdings participates as a director member of the Steering Committee of CGF.

National Movement for Creating a New and Prosperous Lifestyles toward Decarbonization

Kirin Group participates in the new national movement for decarbonization, "Creating a New and Prosperous Lifestyle toward Decarbonization," which started in 2022. We also participate in the "Public-Private Partnership Council for New National Movement" supporting this movement.

Keidanren Voluntary Action Plan

The Brewers Association of Japan, which Kirin Brewery is a member of, and the Japan Soft Drink Association, which Kirin Beverage is a member of, participate in Japan Federation of Economic Organizations' environmental impact reduction efforts, working on GHG emission reduction and waste recycling.

Private Sector Engagement Initiative on Biodiversity

Kirin Holdings participates in the "Private Sector Engagement Initiative on Biodiversity," established in 2010 by The Nippon Keidanren, the Japan Chamber of Commerce and Industry, and KEIZAI DOYUKAI (Japan Association of Corporate Executives).

Forest Supporters

Kirin Group participates in the "Forest Supporters" campaign, a national movement to promote beautiful forest creation, organized by the National Land Afforestation Promotion Organization.

Rainforest Alliance Consortium

Kirin Group has been a founding member of the "Rainforest Alliance Consortium," established in September 2015 by the Rainforest Alliance and companies handling its certified products, aiming to promote sustainable agriculture.

Consortium for Sustainable Paper Use (CSPU)

Kirin Group has been a founding member of the "Consortium for Sustainable Paper Use," established by five (currently eleven) companies and WWF Japan, promoting sustainable paper use.

Japan Clean Ocean Material Alliance (CLOMA)

Kirin Group participates in the "Japan Clean Ocean Material Alliance (CLOMA)," established to solve the global marine plastic waste problem by promoting the sustainable use of plastic products and the development and introduction of alternative materials, accelerating innovation.

Japan Sustainable Palm Oil Network (JaSPON)

Kirin Group participates in the "Japan Sustainable Palm Oil Network (JaSPON)," established to promote the sustainable procurement and consumption of palm oil.

The TNFD Forum

The TNFD Forum is a support network sharing the mission and vision of the Taskforce on Nature-related Financial Disclosures (TNFD), a framework for information disclosure for nature capital risk management. Kirin Holdings became the first domestic food and beverage and pharmaceutical company to participate in December 2021.

Business for Nature

Kirin Holdings endorsed and signed the "Business Statement for COP15," aimed at the 15th Conference of the Parties to the Convention on Biological Diversity (COP15) held in December 2022.

Circular Partners (CPs)

Kirin Holdings participates in 'Circular Partners,' a public-private-academic collaborative organization established by the Ministry of Economy, Trade and Industry (METI), since 2023, aimed at realizing a Circular Economy that maximizes added value while promoting efficient and circular use of resources.

Beverage Industry Environmental Roundtable (BIER)

This is an organization where the world's leading beverage companies collaborate to address environmental challenges, respond to environmental regulations, and consolidate opinions. While our Group company Lion has been a member, Kirin Holdings newly joined as a member in January 2026.

The Consumer Goods Forum (CGF)

CGF is a CEO-led, nonprofit international industry association established in 2009, bringing together retailers and manufacturers in the consumer goods sector. The Kirin Group has been a member since CGF's predecessor organizations and has served as a Board member since 2009.

Voluntary Participation Leading to Policy Recommendations

Production Sites (Production Sites / Activity Content)

Sri Lanka Tea Farms

Since 2013, we have been supporting the acquisition of Rainforest Alliance certification at tea farms in Sri Lanka, the tea production region, to enhance sustainability. Since 2018, we have also started supporting certification acquisition for small farms and conservation of water sources on the farms.

Vietnam Coffee Farms

Since 2020, we have expanded our support for acquiring Rainforest Alliance certification to coffee farms in Vietnam.

Domestic Vineyards

Since 2014, at Mercian's self-managed Mariko Vineyard on the Jimbadai Plateau in Ueda City, Nagano Prefecture, and at Tenguosawa and Jyonohira Vineyards in Yamanashi Prefecture, we have been conducting ecosystem surveys and vegetation restoration activities. We also hold environmental classes at elementary schools at the foot of the mountains in Ueda City.

NGOs/NPOs/Environmental Organizations (Organization Names / Activity Content)

WWF Japan

We cooperated with WWF in the formulation of the "Sustainable Biological Resources Procurement Guidelines" and "Action Plan." We co-founded the "Consortium for Sustainable Paper Use" and continue to engage in activities.

Rainforest Alliance

We jointly support the acquisition of certification for tea farms in Sri Lanka and coffee farms in Vietnam. In Sri Lanka, we have completed the Regenerative Tea Scorecard and are now using it to assess on-farm practices and guide improvements toward regenerative agriculture.

FSC Japan

We engage in joint activities to promote FSC-certified paper. In 2017, the Kirin Group committed to the "Vancouver Declaration on SDGs and FSC Certification."

RSPO (Roundtable on Sustainable Palm Oil)

Kirin Holdings participate as a member of the non-profit organization aimed at promoting the production and use of "Sustainable Palm Oil."

Junior United Nations Environment Program (JUNEC)

We co-host the "Kirin School Challenge."

Earthwatch Japan

We jointly conduct vegetation surveys and Clara restoration activities at Mariko Vineyard.

Industry Associations (Organization Names / Activity Content)

Brewers Association of Japan

We jointly formulate and implement Voluntary Action Plans for the Environment regarding containers and packaging, global warming countermeasures, and the formation of a circular society, and work together to prevent the littering of beverage containers and promote environmental beautification.

Japan Soft Drink Association

We jointly formulate and implement Voluntary Action Plans for the Environment regarding containers and packaging, global warming countermeasures, and the formation of a circular society, and work together to prevent the littering of beverage containers and promote environmental beautification.

Recycling Organizations

We promote 3R (Reduce, Reuse, Recycle) in cooperation with the Container and Packaging Recycling Association and various recycling promotion councils.

The Beverage Industry Environment Beautification Association

Six beverage manufacturer organizations collaborate on activities for environmental beautification.

Research Institutions (Organization Names / Activity Content)

National Agriculture and Food Research Organization (NARO)

We conduct joint research on ecosystem changes associated with the creation of vineyards on idle abandoned land, as well as vegetation restoration activities for rare and native species.

Next Generation Engagement (Activity Names / Activity Content)

Kirin School Challenge

We organize environmental workshops for junior and senior high school students.

Japan Environmental Youth Network

We support Japan Environmental Youth Network, organized by the Ministry of the Environment and the Environmental Restoration and Conservation Agency of Japan, and serve as judges for both regional and national competitions.

Kirin Nature School in Sri Lanka

We newly launched the 'Kirin Nature School in Sri Lanka' in November 2025, which provides classes themed on coexistence with nature at elementary and junior high schools attended by children of employees working at tea plantations in Sri Lanka.

Environmental Education at Shiokawa Elementary School in Ueda City, Nagano Prefecture

At Château Mercian Mariko Vineyard, we are working with local NGOs and elementary school students to increase the population of *Sophora flavescens*, the sole host plant for the *Shijimiaeoides divinus*, a critically endangered butterfly classified as Category 1A. Cuttings of *Sophora flavescens* growing on the ridges of rice paddies near the vineyard are collected, and children cultivate them in flower beds in the schoolyard before transplanting them in the vineyard. We also provide learning opportunities for children and foster collaboration with the local community through environmental education classes for students. This initiative was recognized by the Ministry of the Environment in 2024 as one of the "100 Best Environmental Education and ESD Practice Videos" and received high praise as embodying "the essence of environmental education and ESD."

Sustainable Finance

Please refer to the following website reporting on green bonds and transition-linked loans.

https://www.kirinholdings.com/en/impact/csv_management/sustainable_finance/

Environmental Management Certification Status

Please refer to the following webpage for the latest status of environmental management certification.

<https://www.kirinholdings.com/jp/investors/sustainability/esg/>

External Awards

Year	Award Recipient	Award Name	Award Content	Implementing Organization
2025	Kirin Holdings	CDP Water Security	A List (10 consecutive years)	CDP
2025	Kirin Holdings	7th "Nikkei SDGs Management Grand Prize"	Grand Prix (the company's third recognition following "the Environmental Value Award" in 2020 and "the SDGs Strategy and Economic Value Award" in 2022)	Nikkei Inc.
2025	Kirin Brewery	13th "Food Industry Mottainai Award"	Chairman's Award at "the Food Industry Mottainai Award"	Ministry of Agriculture, Forestry and Fisheries
2025	Kirin Holdings	Excellent TCFD Disclosure	Received the highest number of votes	Government Pension Investment Fund
2025	Kirin Holdings	CDP Supplier Engagement Rating	Leaders Board (7 consecutive years)	CDP
2025	Kirin Holdings	6th "ESG Finance Awards Japan" Environmental Sustainable Company Category	Gold Award (4th time)	Ministry of the Environment
2024	Kirin Holdings	Top 100 Environmental Education & ESD Practice Videos	Selection	Ministry of the Environment
2024	Kirin Brewery	Food Loss Reduction Promotion Award	Chairman's Award	Consumer Affairs Agency, Ministry of the Environment
2024	Kirin Holdings	CDP Water Security	A List (8 consecutive years)	CDP
2024	Kirin Holdings	CDP Climate Change	A List	CDP
2024	Kirin Holdings	FY2024 Private Sector Agriculture, Forestry, and Fisheries Research and Development Achievers Award	Minister of Agriculture, Forestry and Fisheries Award (Discovery and commercialization of β -lactolin)	Ministry of Agriculture, Forestry and Fisheries
2024	Kirin Holdings	SX Brand (Sustainability Transformation Brand) 2024	SX Brand Selection	Ministry of Economy, Trade and Industry
2024	Kirin Holdings	CDP Supplier Engagement Rating	Leaders Board (5 consecutive years)	CDP
2024	Kirin Holdings	5th "ESG Finance Awards Japan" Environmental Sustainable Company Category	Gold Award	Ministry of the Environment
2024	Kirin Holdings	CDP Water Security	A List	CDP
2024	Kirin Holdings	CDP Climate Change	A-	CDP
2024	Kirin Holdings	5th "Nikkei SDGs Management Survey"	Highest Rank (5 consecutive years)	Ministry of the Environment
2023	Kirin Holdings	Excellent TCFD Disclosure	Received the highest number of votes	Government Pension Investment Fund
2023	Kirin Holdings	CDP Supplier Engagement Rating	Leaders Board	Ministry of the Environment
2023	Kirin Holdings	Leading Company in Sustainable Raw Material Procurement for Domestic Food Manufacturers	Cabinet Secretary's Award	Ministry of Agriculture, Forestry and Fisheries
2023	Kirin Holdings	4th "ESG Finance Awards Japan" Environmental Sustainable Company Category	Special Award	Ministry of the Environment
2022	Kirin Holdings	Excellent TCFD Disclosure	Received the highest number of votes	Government Pension Investment Fund
2022	Kirin Holdings	10th Ministry of the Environment Good Life Award	10th Anniversary Special Award Biodiversity Award	Ministry of the Environment
2022	Kirin Holdings	CDP Water Security	A List	CDP
2022	Kirin Holdings	CDP Climate Change	A List	CDP
2022	Kirin Holdings	CDP Supplier Engagement Rating	Leaders Board	CDP

Awards for Container and Packaging

Year	Award Recipient	Award Name	Award Content	Implementing Organization
2025	"Gogo-no-Kocha" Brand "Iced Tea Glass Bottle"	Japan Packaging Contest 2025	Appropriate Packaging Award	Japan Packaging Institute
2025	FANCL Skin-care Set* with malt powder-infused pulp mold box	WorldStar Awards 2025	WorldStar Awards	World Packaging Organization
2022	"Namacha" brand's new PET bottle: "Green Ecology Bottle"	2022 Japan Packaging Contest	Packaging Technology Award (Proper Packaging Award)	Japan Packaging Institute
2022	Development of lightweight PET bottles for wine	46th Kinoshita Award	Packaging Technology Award	Japan Packaging Institute
2022	Heartland Beer - 330ml and 500ml glass bottles	18th Glass Bottle Award 2022	Special Award	Japan Glass Bottle Association

Awards for Business Sites

Year	Award Recipient	Award Name	Award Content	Implementing Organization
2023	Shanghai Kyowa Amino Acid	Reevaluation of Water-Saving Companies	Award	Shanghai City
2023	Shanghai Kyowa Amino Acid	Evaluation Meeting for Industrial Water Reuse Cases	Excellence Award	Shanghai City

Awards for Greening

Year	Award Recipient	Award Name	Award Content	Implementing Organization
2022	Kirin Brewery Shiga Plant	Lake Biwa Forest Creation Partner Agreement	Certificate of Appreciation for Contribution to Forest Creation for Water Sources	Shiga Prefecture

Awards for Energy Conservation

Year	Award Recipient	Award Name	Award Content	Implementing Organization
2022	Kirin Brewery Hokkaido Chitose Plant	Hokkaido Energy Conservation and New Energy Promotion Grand Prize New Energy Category	Encouragement Award	Hokkaido Government
2022	Kyowa Kirin Ube Plant	Yamaguchi Prefecture Global Warming Countermeasures	Excellent Business Site	Yamaguchi Prefecture
2022	Shinshu Beverage	Business Activity Global Warming Countermeasure Plan System	Excellent Business Operator Award	Nagano Prefecture Zero Carbon Promotion Office
2022	Thai Kyowa Biotechnologies	Green Industry	Level 3	Ministry of Industry (Thailand)

Awards for Biodiversity

Year	Award Recipient	Award Name	Award Content	Implementing Organization
2026	Tengusawa Vineyard	Sustainably Managed Natural Sites	Certification	Ministry of the Environment
2025	Jyonohira Vineyard	Sustainably Managed Natural Sites	Certification	Ministry of the Environment
2023	Mariko Vineyard	Sustainably Managed Natural Sites	Certification	Ministry of the Environment

Other Information Disclosure

Environmental Information Disclosure Through Products (Subjects / Disclosure Content)

Carbon Footprint

Kirin Brewery began working on carbon footprint initiatives with the beer industry in 2008. The PCR (Product Category Rule) for beer, which serves as the basis for calculation, was certified in February 2011 and revised in December 2013.

PAS 2060

"Fat Tire Amber Ale" and "Mountain Time Lager," produced by New Belgium Brewing, have obtained PAS 2060 certification, an international standard that certify carbon neutrality.

Toitū Net Carbon Zero Product

"Steinlager" and "The Fermentist Kiwi Pale Ale," produced by Lion, have obtained Toitū Net Carbon Zero Product certification, a New Zealand standard that certify carbon neutrality.

Rainforest Alliance Certification Mark

In August 2021, Kirin launched the year-round sale of "Kirin Gogo-no-Kocha Straight Tea" in 250ml paper packs (LL Slim), displaying the Rainforest Alliance Certification Mark, which is awarded to farms recognized for pursuing more sustainable agricultural practices while protecting nature and producers.

FSC Certification Label

Many paper containers used by Kirin Brewery and Kirin Beverage (including Tropicana) are labeled with the FSC certification to help customers understand the importance of forest conservation.

Organic Wine

Mercian sells wines that have received "organic certification" such as Euroleaf, Ecocert, Biodivin, Bioagrisert, and Sohiscert.

Disclosure to Investors (Subjects / Disclosure Content)

Reports

We also disclose environmental information in various investor reports such as:

- Integrated Report
- Kirin Group Environmental Report*
- Kirin Holdings Securities Report
- Kyowa Kirin Annual Report
- Kyowa Hakko Bio CSV Progress Report
- Lion Sustainability Report
- Blackmores Sustainability Report
- FANCL FANCL Report"

Websites

Furthermore, environmental information is disclosed on various websites such as:

- Kirin Holdings Creating Shared Value with Society Site(Environment)*
- Kirin Holdings IR Information

* Information based on the final report of the Task Force on Climate-related Financial Disclosures (TCFD) has been disclosed annually since 2018 in the Environmental Report and on the Environmental Site.

Case Studies (Publisher / Content)

JB Press "Leading Practices in Sustainability Management"

The True Value of 'Nature Positive': Kirin's Pioneering Commitment to Environmental Management
<https://jbpress.ismedia.jp/articles/-/79753>

Nikkei ESG "Hot Issue"

Kirin Shares Emissions Reduction Measures with Its Suppliers
<https://project.nikkeibp.co.jp/ESG/atcl/column/00005/041200446/>

Japan External Trade Organization (JETRO)

Kirin's Initiatives to Connect 'Gogo-no-Kocha' to the Future (Sri Lanka)
<https://www.jetro.go.jp/biz/areareports/2026/fdb41ed37952a933.html> (in Japanese)

TNFD "Guidance on nature in transition plans"

Basin-engagement for securing resilience and licence to operate
<https://tnfd.global/publication/guidance-on-nature-in-transition-plans/>

Lectures (Dates / Subjects)

August 1, 2025

Ministry of the Environment and other relevant ministries and agencies "The 1st Panel on Practice for Utilization and Adaptation of Climate Change-related Data"

August 5, 2025

GX League "The 1st GX Studio on Climate-related Information Disclosure"

September 23, 2025

Expo 2025 Osaka, Kansai, Japan
The Future of Earth and Biodiversity Week
"Initiatives achieve Nature Positive in Vineyards"

September 23, 2025

TNFD "TNFD's metrics architecture in practice : Examples from corporates"

September 26, 2025

Ministry of the Environment "The 10th Tripartite Roundtable on Environmental Business"

December 11, 2025

TNFD "Introducing TNFD's Guidance on Nature in Transition Plans"

December 17, 2025

Ministry of the Environment "Nature-related Financial Information Disclosure Workshop"

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Water Risk Assessment at Our Manufacturing Sites

- WRI (2020) Aqueduct Floods
- WRI (2023) Aqueduct Water Risk Atlas
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Assessment of Nature-Related Risks and Opportunities

Screening

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- Mekonnen and Hoesktra (2011) The green, blue and grey water footprint of crops and derived crop products

Locate and Evaluate Analysis for Agricultural Raw Materials

Coffee × Vietnam

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Coffee × Tanzania

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Palm Oil × Malaysia

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Palm Oil × Indonesia

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Corn × Thailand

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Sugarcane × Brazil

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Sugarcane × Australia

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Barley × Australia

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Impact of Lower Yields on Procurement Costs for Agricultural Products in 2050 and Estimation of The Impact on Agricultural Product Procurement Costs from Carbon Pricing in 2050

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Assessment of Impact of Carbon Pricing

Calculated the Increase in energy procurement costs associated with Scope 1 and 2 emissions, as well as those associated with Scope 3 emissions. The carbon prices are based on the IPCC Sixth Assessment Report. In addition to the impact of carbon pricing, changes in electricity prices are considered (Ref: Network for Greening the Financial System). For Scope 3, only Categories 1 and 4 were included in the calculation.

External Diseconomies Related to Kirin Group PET Bottles

Based on the estimation methodology of Beaumont et al. and data from UNEP, the loss of marine ecosystem services attributable to plastic pollution was estimated at approximately USD 2,500 -33,300 per ton of plastic. Using survey data from the Ministry of the Environment of Japan, the share of beverage PET bottles in marine plastic litter was assumed to be 9.6%, and this ratio was multiplied by the Kirin Group's PET resource usage in 2025 to derive the estimate.

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Financial Impact of Transition Risks Related to Natural Capital (Procurement of Certified Products)

Estimated by multiplying by royalties, etc., if coffee and tea leaves are procured as certified products.

Financial Impact of Transition Risks Related to Natural Capital (Reduction in Agricultural Chemicals and Chemical Fertilizers at Tea Farms)

Estimated based on the results of on-site interviews, taking into account prices of chemical and organic fertilizers, as well as respective personnel expenses for the application of these fertilizers.