

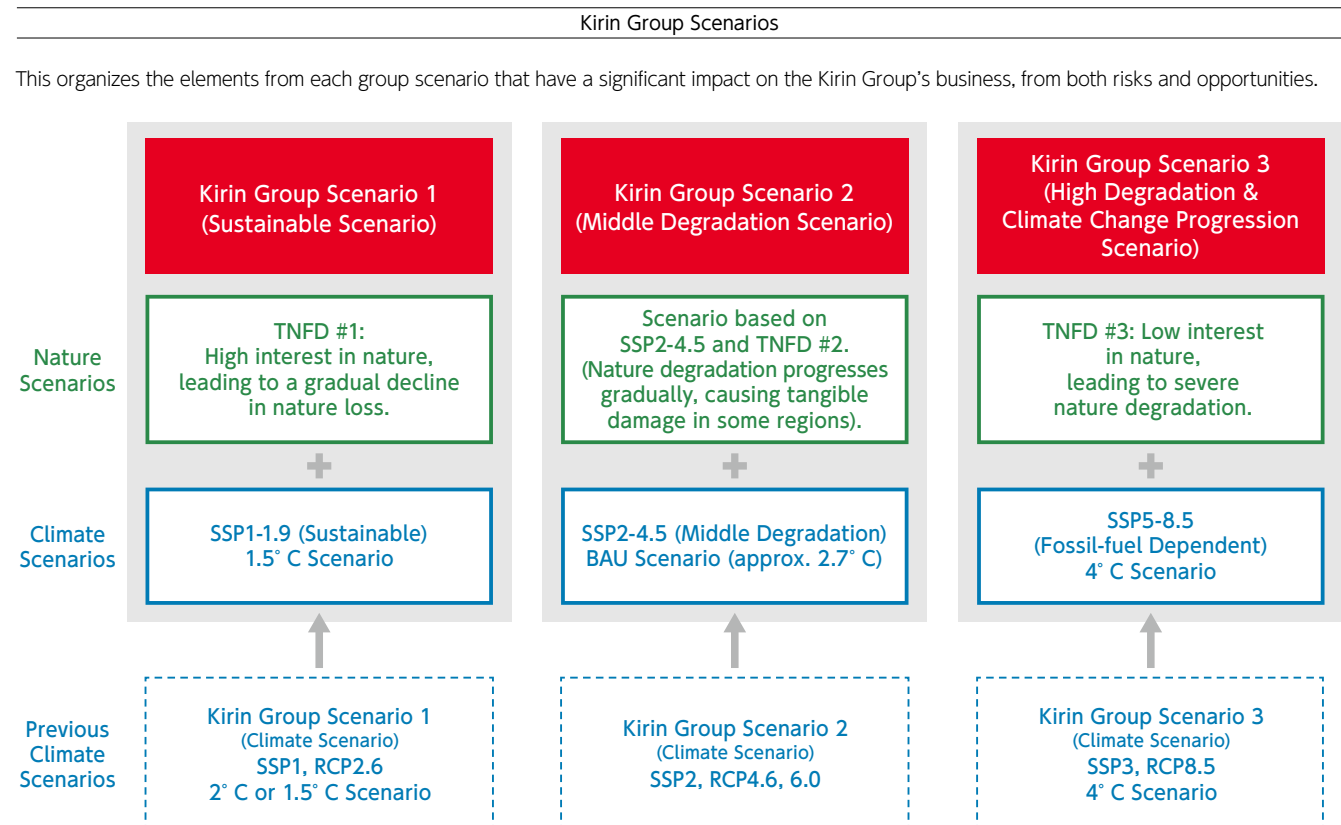
Scenario Analysis

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,

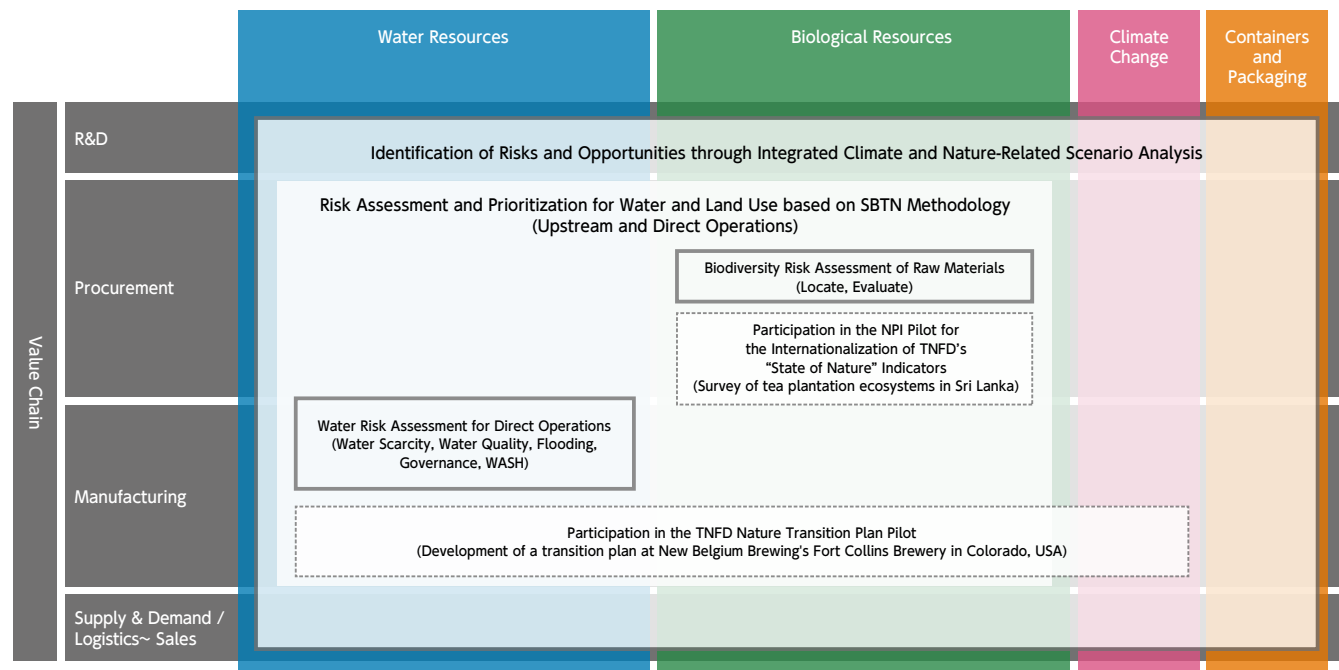
and opportunities in accordance with the TNFD LEAP approach. In 2025, we newly identified nine priority commodities and, through the Locate (identification of interfaces with nature) and Evaluate (assessment of dependencies and impacts) steps, deepened our analysis of issues associated with these commodities 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

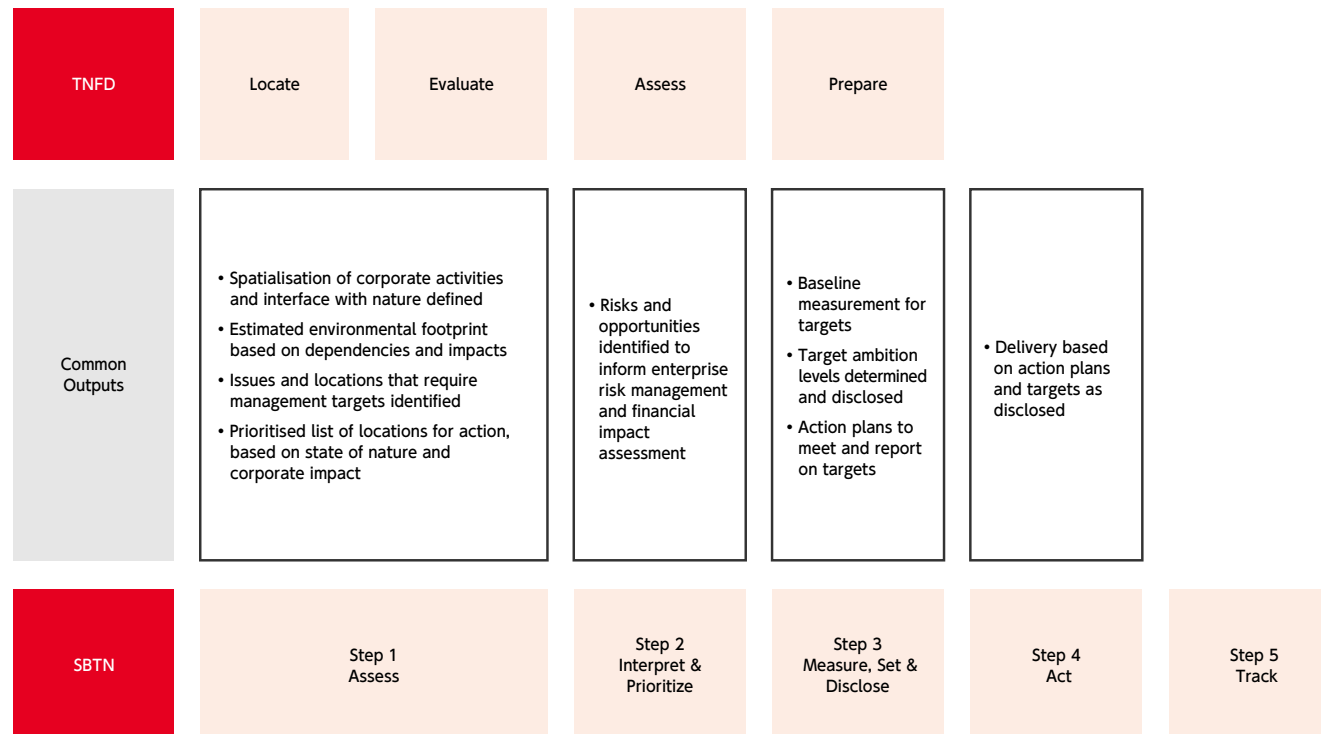
Overview of Risk and Opportunity Assessment

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.

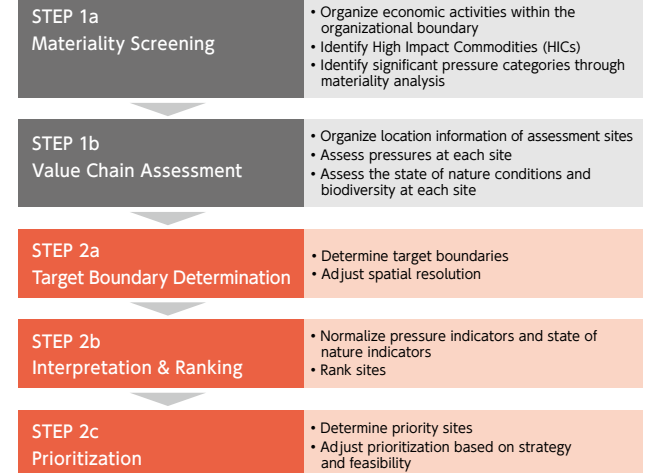
In Step 1a of the assessment process, as part of the materiality screening, we identified the significant impacts (pressures) on nature arising from economic activities in our direct operations and upstream value chain. In Step 1b, among the pressure categories identified as significant, for direct operation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

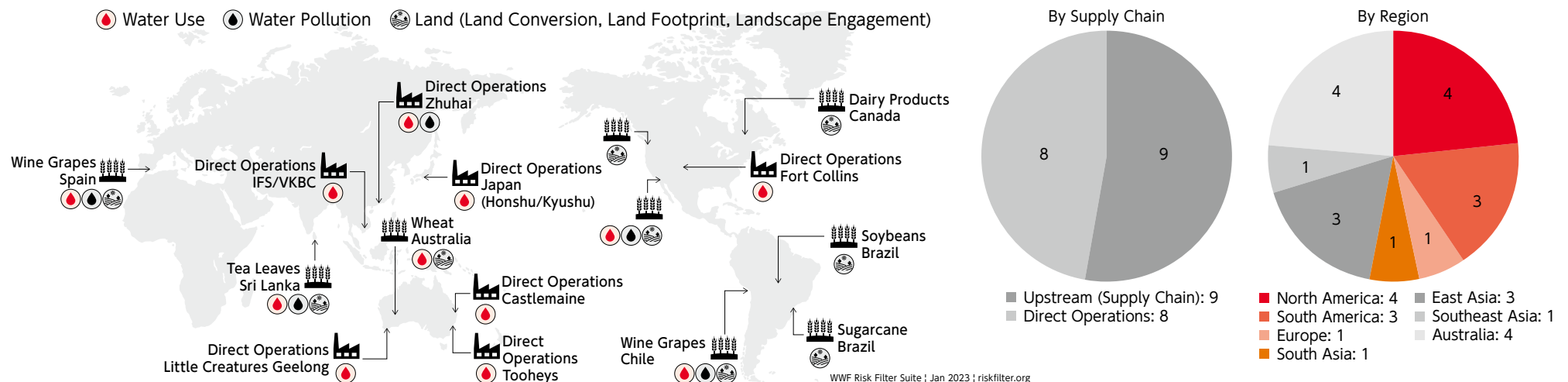
In Step 2, we evaluated the state of nature and biodiversity at each target site using multiple indicators. Based on the resulting scores, we ranked the sites and identified priority areas where targets should be set at the basin or regional level (see figure below).

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

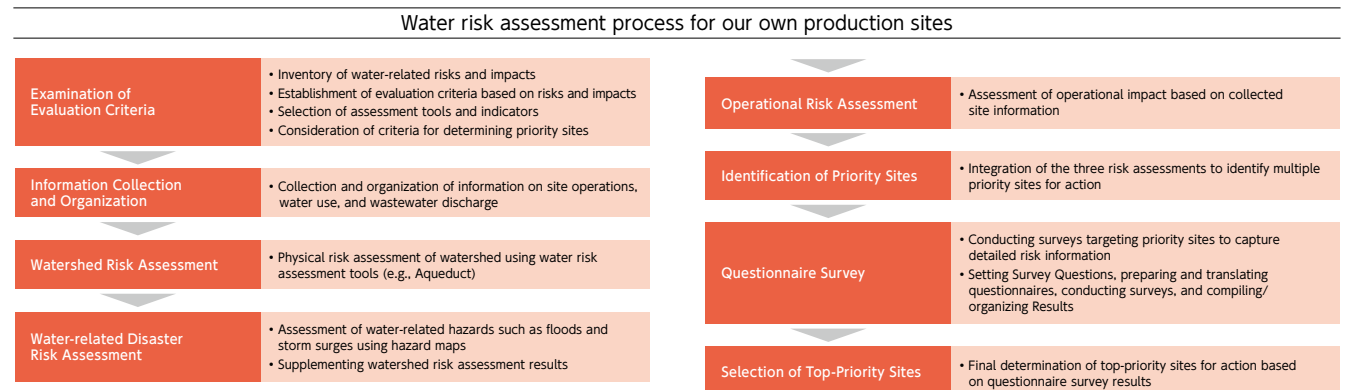
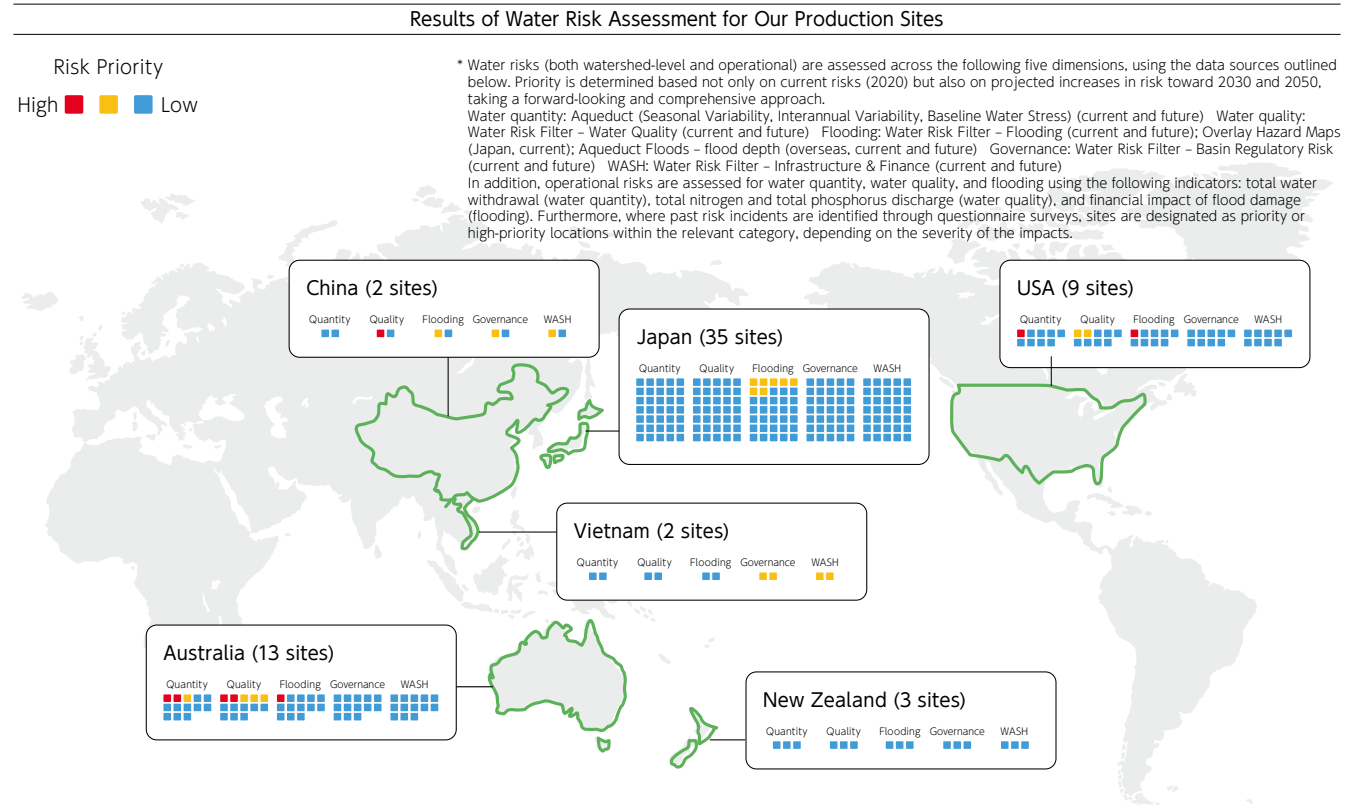
Overview of Water Risk Assessment

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.

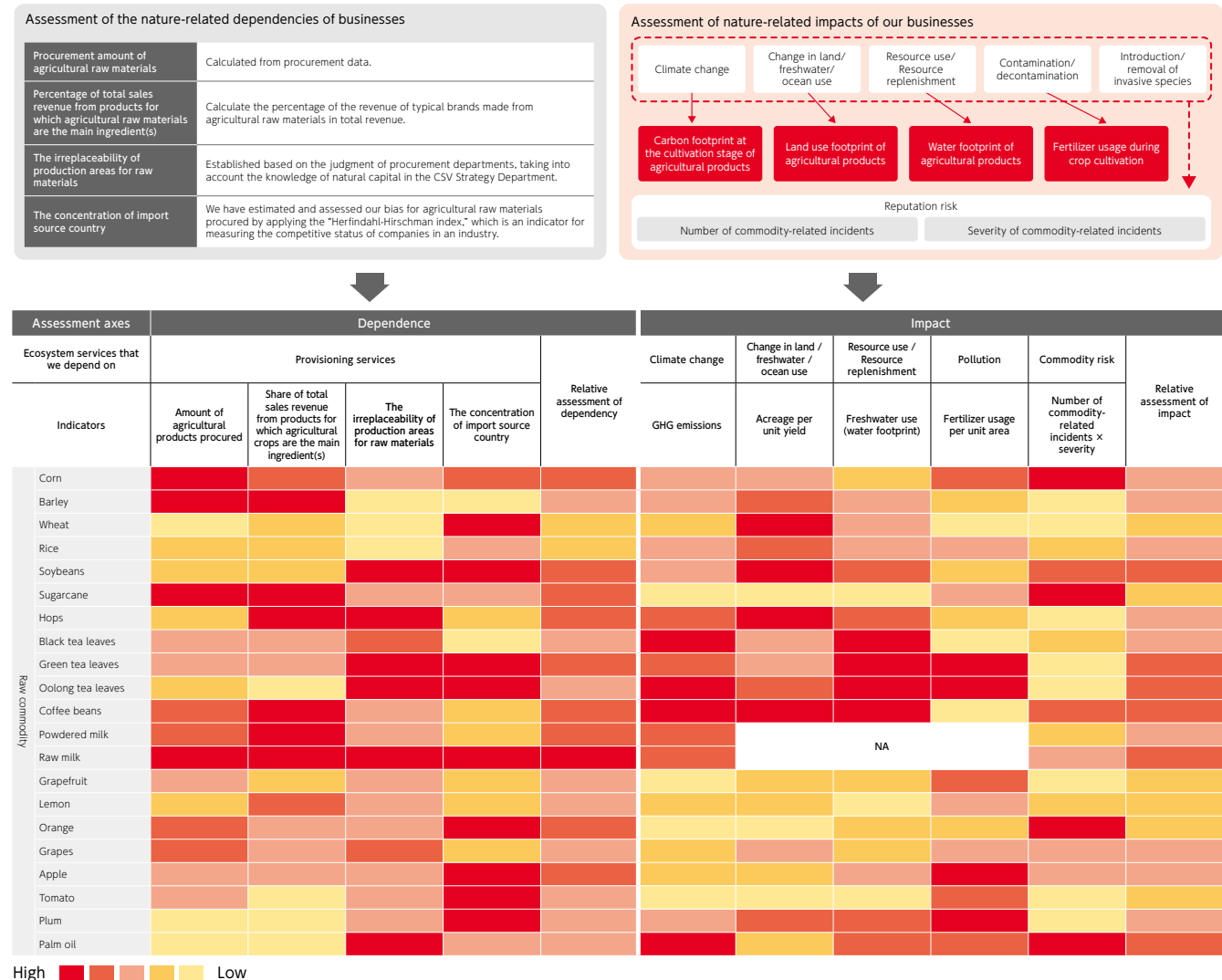
For “the business’s dependencies on nature,” we assessed the degree of dependence on the “provisioning services” of raw agricultural products, as identified as a type of dependency in the TNFD recommendations. We evaluated this using our own assessment indicators: “procurement amount,” “impact on group 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

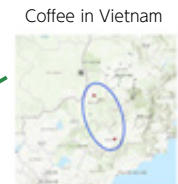
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Raw Agricultural Product	Procurement Country	Environmental Issues					Social Issues		
		Climate Change	Land/Freshwater/Ocean Use Change	Resource Use	Pollution	Introduction of Invasive Species	Workers' Human Rights	Human Rights of Local Communities 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.

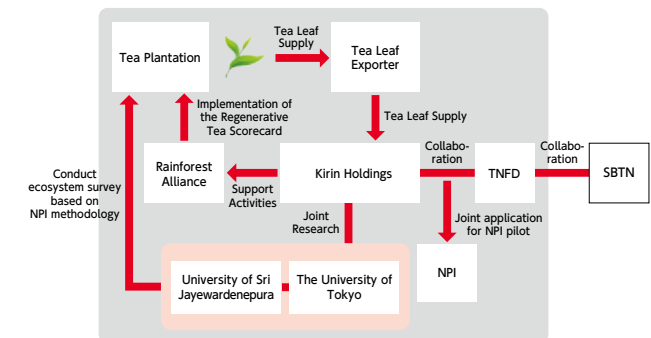
Specifically, in the central highlands of Sri Lanka, we conducted field surveys of flora and fauna in collaboration with the University of Sri Jayewardenepura, a local research institution, as well as multispectral image analysis using drones (land cover classification, vegetation health assessment, 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.

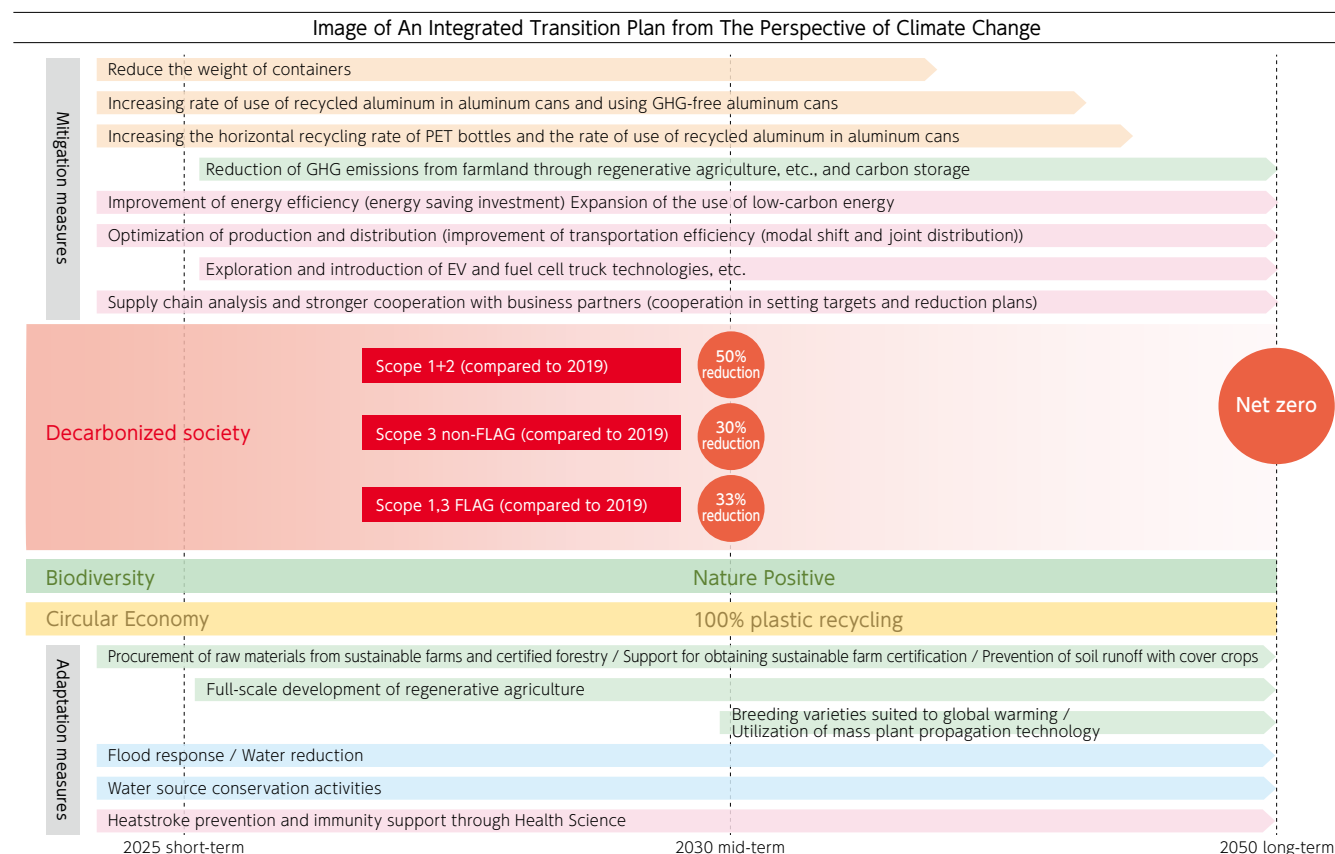
Investment Plans and Financing Plans

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.

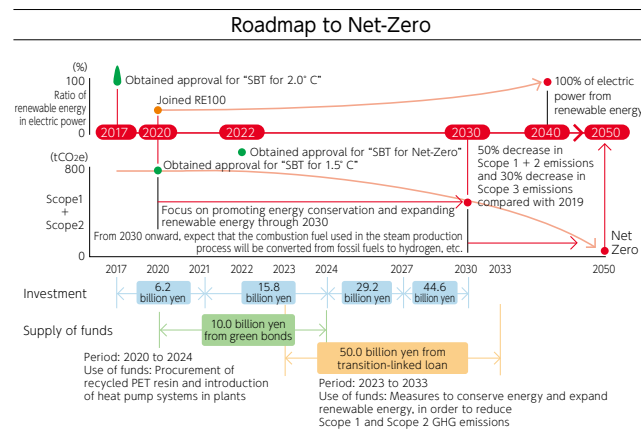
No-Deforestation Commitment

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/)

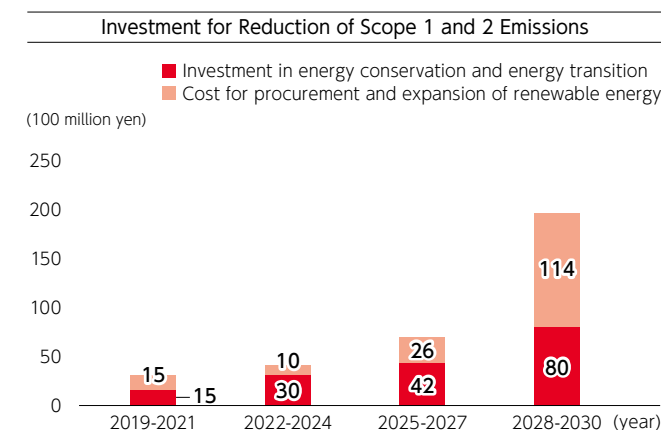
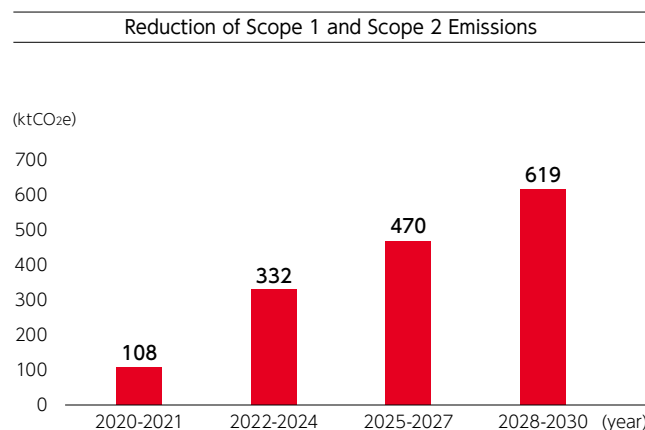
Transition Plans

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%.

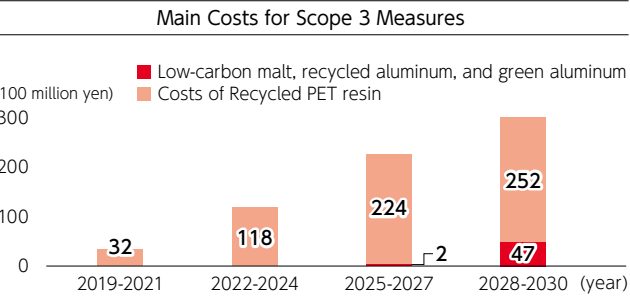
Lion is a member of the Australian Climate Leaders Coalition, a group of Australian company CEOs. Within this group, we have confirmed that using a system where actual GHG emission data is pooled by a third-party organization without mutual disclosure among value chain companies such as suppliers and 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

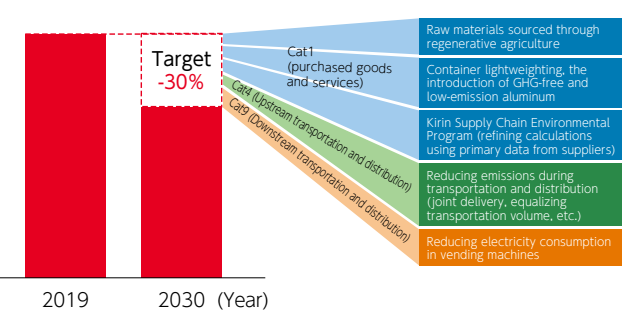


* Represents the main impacts of additional measures required to address transition risks and achieve the Environmental Vision

* 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

Scope 3 Emissions Reduction Actions



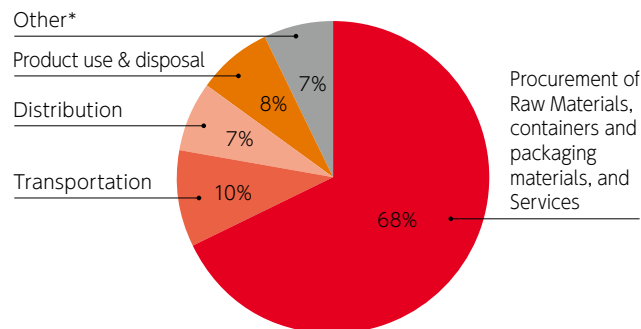
Transition Plans

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



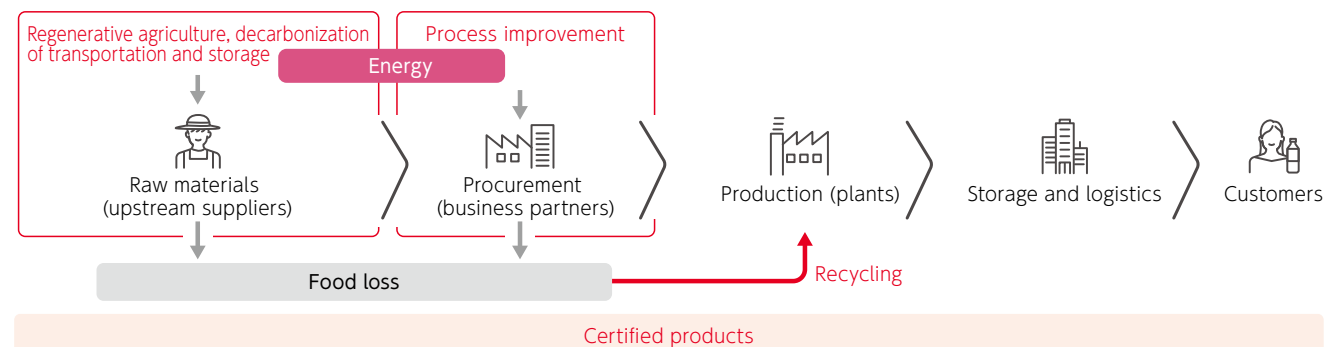
* Emissions other than the above (emissions from the manufacture and transportation of capital goods, fuel, etc., waste from business operations, travel and commuting of employees, etc.)

GHG Emission Reductions from Containers and Packaging

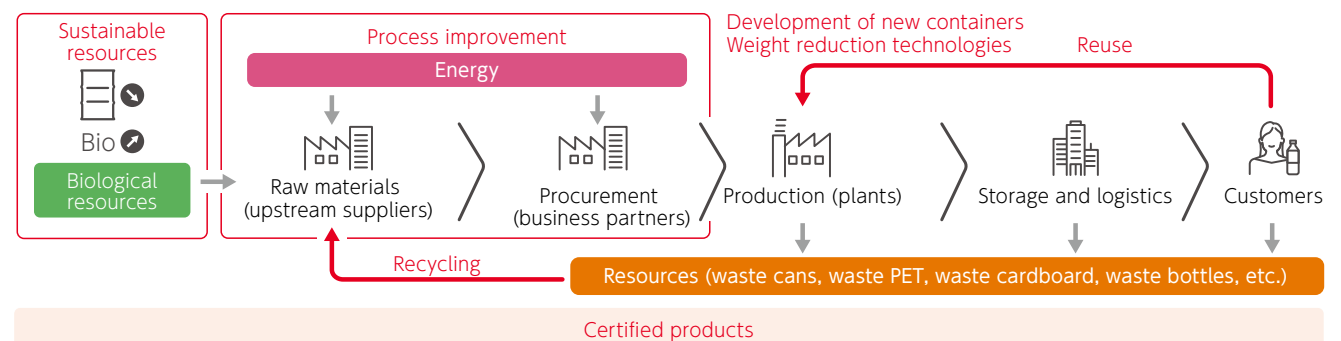
In reducing GHG emissions from containers and packaging, recycling and reuse as much as possible is the priority. For containers and packaging that are difficult to recycle, selecting paper and biomass resins with assured sustainability is crucial. Upstream suppliers (of materials) and processing companies 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.