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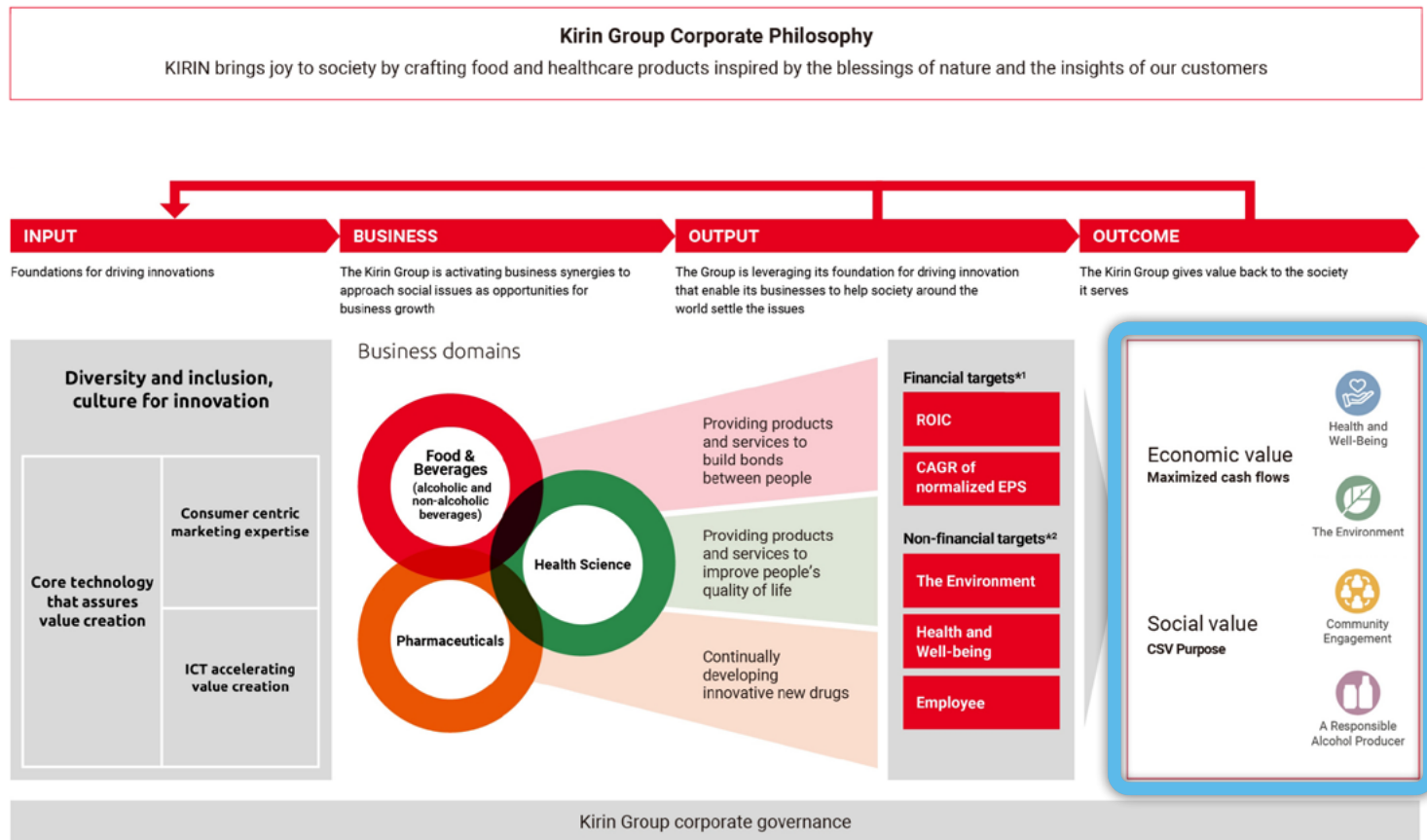
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## CSV Stories

Health and Well-Being



# Spreading an Immune Care Habit and Contributing to the Consumers' Health and Well-Being

## Tomohiko Fujita

Manager, Planning Group  
Health Science Business Department,  
Health Science Business Division  
Kirin Holdings Company, Limited

### Related Management Issues

- Support for maintaining immunity functions

### Sustainable Development Goals



In the Long-Term Management Vision, Kirin Group Vision 2027 (KV2027), the Kirin Group has set a goal of creating value across our world of Food & Beverages to Pharmaceuticals as a global leader in CSV. To fulfill the KV2027 goal, we are expanding the scale of the Health Science domain and setting the area of immunity as our highest priority.

Immunity is an important function for living a healthy life. To humans, it could even be called the “foundation of health,” if the foundation crumbles, it will lead to various health issues. However, it is difficult to notice a functional decline in immunity, and the delay of treatment is a major health issue. We think solving this issue would be socially significant.

## The world's first discovery of *Lactococcus lactis* strain Plasma (LC-Plasma) that directly activates the commander in chief of the immune system

During our research on immunity, we made the world's first discovery of LC-Plasma, which activates the commander in chief of the immune system that was previously thought to not exist, and published an article in 2012. We have accumulated a large amount of evidence in the form of 31 reports, including those on human studies. In August 2020, using the results of our research,

we successfully registered our iMUSE brand, which uses LC-Plasma, as foods with immunity function claims, a first for Japan. LC-Plasma is a lactic acid bacterium that supports the maintenance of the immune functions of healthy people, and it was first announced to the world\* through an article that it activates plasmacytoid dendritic cells (pDC). While general lactic acid bacteria activate only some of the immune cells, the LC-Plasma directly activates the pDC, which is the commander in chief of the immune system. The activated pDC then orders the activation of all the immune cells (NK cells, killer T cells, B cells, and T helper cells), facilitating the defense system to work against foreign objects.

Additionally, in contrast to general lactic acid bacteria, LC-Plasma has an effect even when non-viable, which makes it easy to incorporate it into various foods. That's why we, along with our group and partner companies, have been developing various products in addition to yogurt that uses viable bacteria, such as beverages, supplements, and snacks, and providing the value of LC-Plasma for many consumers.

\*World's first-ever published paper on the effects of Lactic acid bacterium on pDC (Based on ICHUSHI Web and PubMed)

## LC-Plasma spreads in Japan and internationally

The Kirin Group expanded the variety of products infused with LC-Plasma (foods with function claims) to 26 by the end of 2022 (there were 17 at the end of 2021). In 2022 *L. lactis* strain Plasma Series sales grew 40% compared to the previous year due to the large contributions of the expansion of beverages, supplements, and yogurts.

The number of our partner companies in foods with function claims has grown to 6, and the number of products has grown to 12 (3 companies and 7 products at the end of 2021). In 2022 we newly partnered with Nihon Yakken Co., Ltd., Taisho Pharmaceutical Co., Ltd., and TOKIWA Pharmaceutical Co., Ltd., and the companies started selling five new foods with function claims. The products were praised for their good taste and variety, which make it easy to intake LC-Plasma, and it helped to establish an immune care habit and increased the sales of the LC-Plasma products.

As for foods without functional claims, Petio Corp. released 27 new snacks for pets, expanding the total number of products to 37 (10 products at the end of 2021). They are committed to helping us promote

immune care, which is also a growing need among consumers with pets.

Furthermore, LC-Plasma bacteria sales have spread internationally. In the US, there are currently seven companies selling nine products, and in Europe sales are expanding into Italy and other countries. Our target international markets are primarily those of North America and Southeast Asia, but there are some regions in Southeast Asia in which we cannot yet sell LC-Plasma due to religious beliefs, so we are aiming to expand into those regions by getting it certified as a Halal product. (We plan to start externally selling Halal raw materials by the end of 2023.)

## Focusing on immune care awareness-raising activities and product lineup expansion

Kirin's research uncovered that about 85% of consumers understand immunity is important to their health. On the other hand, the number of people who answered saying they actually have immune care habits was only around 10%, so we see a big gap in those with knowledge and those taking action.

We believe the reason for this gap is that immunity's hard-to-notice function makes it difficult to feel the importance of immune care and take action, so in order to promote making a habit of caring for immunity, the foundation of health, the Kirin Group persistently works together with the above partner companies to raise awareness. We believe these awareness-raising activities are very significant to society. We also plan to continue expanding our product lineup to create an environment in which people can easily and habitually care for their immunity through our products.

## (1) Awareness-raising activities

When it comes to immune care awareness-raising activities, we have been developing a marketing strategy based on consumer needs. We are planning to make a shift to a strategy that places importance on social issues rather than one that is centered around our products and information within the company. Through cooperating with Japanese governments and administrative agencies, and various businesses, organizations, schools, and more, we will spread the awareness of the importance of immune care to accelerate its normalization.

As an example of our efforts, in winter 2022 we partnered with various Japanese tourist organizations to promote safe immune care while traveling. In terms of our mid- to long-term awareness-raising initiatives, we are continuing to develop school classes on immunity to enhance knowledge about immunity among elementary school students.

We believe it is important to have scientific support for immune care so that consumers come to feel the importance of it. The credibility of LC-Plasma has been confirmed through various scientific journals, and we will aim to work on further research and gather more scientific evidence to gain more trust from consumers.

As a result of these initiatives in Japan, the percentage of people aware of the function of LC-Plasma reached 32% at the end of 2022, and the number of people who were consuming it regularly had climbed to 640,000.

## (2) Product lineup expansion

In addition to raising awareness of the importance of immune care, we should work to expand our product

lineup to make it easier to develop immune care habits. Our partner companies and we are working to develop products of various kinds. We are also expanding the geography of international LC-Plasma bacteria sales.

With the prospect of the future market expansion in Japan and overseas, we are fortifying our production system. We are installing more cultivation tanks, centrifuges, and other equipment necessary to bacteria production at our LC-Plasma bacteria manufacturing plant, which will almost double the current yearly capacity to 28 tons in 2023.

The Kirin Group will continue to cooperate with partner companies to expand LC-Plasma both in Japan and internationally.

## Spreading immune care habits together with partner companies and realizing fulfilled lives

As previously mentioned, the sales of L. lactis strain Plasma Series in 2022 grew 40% compared to the previous year. That being said, even though we have excellent technology and materials, the Kirin Group's efforts alone may not suffice to offer value to a diverse range of consumers. By collaborating with partner companies in various industries who share our aspiration

to solve health issues, we aim to develop a wide variety of LC-Plasma products and continue to increase people's choices and contact with the products, thereby making immune care more accessible to consumers. Going forward, we hope to contribute to the creation of a healthy society, in mind and body, by spreading immune care habits with our partner companies.

The cooperation of our partner companies and us is not limited to the selling of LC-Plasma bacteria. We also collaborate in product development so that we may deliver excellent products that lead to immune care habits for consumers. For example, during our partner companies' product planning stage, our Institute of Health Sciences offers advice from a technical perspective and provides support for the registration of foods-with-function labeling. This organizational capability to offer such scientific and technical knowledge is one of our strengths, and it allows us to further strengthen our cooperation with our partner companies.

We at the Kirin Group and those at our partner companies will continue to propose appealing products supported by scientific evidence and to promote immune care habits in line with awareness-raising activities. In particular, we will consistently cooperate with our partner companies from academia and research to marketing and work as one to solve health issues.

Immunity is the foundation of human health and is inherent in human nature. We hope that through spreading immune care habits, we will strengthen this innate power and contribute to helping people feel the joy of living to be 100 years old and to the realization of fulfilled lives. We believe that this is how we can truly contribute to the health and well-being of each and every one of consumers.



**Tomohiko Fujita**

Manager, Planning Group  
Health Science Business Department,  
Health Science Business Division  
Kirin Holdings Company, Limited

Joined Kirin Brewery Company, Limited. He was in charge of domestic and international sales and marketing before joining the Health Science Business Department at Kirin Holdings through an internal recruitment process in 2021. He is currently promoting collaboration with partner companies as the one in charge of the strategy of expanding LC-Plasma and other immunity materials.







# CSV Stories

Community Engagement

## Giving Back to the Community through Human Powered Business

**Meghan Oleson**

Social Impact Senior Manager  
New Belgium Brewing Company

### Related Management Issues

- Respect for human rights
- Sustainable development of communities in raw material production areas and business development regions
- Creating bonds and trust for people’s well-being
- Enhancing the sustainability of food economy

### Sustainable Development Goals



Through its products and services, New Belgium Brewing seeks to contribute to the creation and development of a society in which customers and all participants in the value chain are connected with joy. To achieve this goal, we contribute to community through the establishment of the “Human Powered Business” model.

### Overview of New Belgium Brewing

New Belgium Brewing was founded in Fort Collins, Colorado in 1991 by Jeff Lebesch and his wife, Kim Jordan. Jeff, a homebrewer, had developed a recipe for a Belgian-style beer, and with Kim’s background in social work and business, they turned his passion into a successful venture. The following year, they introduced Fat Tire Amber Ale and other beers in Colorado, and the brand’s popularity quickly spread to other states. The company continued to grow and expand over the years, opening locations in Asheville, N.C. (2016), Denver, Colo. (2018), and San Francisco (2021). In 2022, we acquired

Bell’s Brewery, a like-minded pioneer in craft beer known for its quality and human-first approach to business.

Today, New Belgium’s lineup includes Fat Tire Ale (America’s first certified carbon neutral beer), Voodoo Ranger IPA (America’s #1 IPA brand family), Two Hearted IPA (voted best beer in America four years in a row), and Oberon Ale (which inspired an official Michigan state holiday).

New Belgium is a certified B Corporation; leads on climate with aggressive, science-based 2030 GHG reduction goals; has donated more than \$31 million to support positive social and environmental impact to date; maintains TRUE Zero Waste certification; and was the first craft brewery to achieve a perfect score on the Human Rights Campaign’s Corporate Equality Index.



With over 1,300 coworkers, New Belgium's pioneering and humanized approach to business has made it a top-performing brand in the U.S. craft beer market in terms of sales volume and growth.

## A Human Powered Business

New Belgium was co-founded by a social worker who built the company the only way a social worker would: People first. Since then, we have pioneered and developed

a model we call Human Powered Business, based on a simple but radical truth: Business is a human endeavor. People drive our business forward, and, in return, the business puts coworker and community wellbeing at the center of everything we do. This fosters a self-fulfilling culture of individual empowerment and collaborative action that drives better business results in the long term. In other words, the business benefits when the people who power it prosper.

The result? We're at the top of the U.S. craft beer industry. We enjoy incredibly low turnover and consistently high engagement among our workforce. New Belgium didn't lay off a single coworker as a result of the COVID-19 pandemic. Our team comes to work every day invested in the quality of our product and the success of our company, because the company invests in the quality and success of their lives everywhere we can.

## Four Principles of Human Powered Business

The Human Powered Business model is comprised of four core principles – all working together to drive outsized long-term success.

### 1. We Do Right by People

People are at the heart of New Belgium – and always have been. We support our coworkers and communities, promoting comprehensive wellbeing, including financial, social, environmental, and physical health. As we've grown, we've invested even more in our coworkers, with initiatives like financial transparency, pay equity, and quality healthcare, including an on-site wellness center. Our coworkers'

dedication to the company's health has only increased.

### 2. We Make World-Class Beer for Everyone

From the beginning, we've focused on our superpower – making great beer, and doing it responsibly. Our coworkers are skilled experts, with talents honed over time, who take pride in their craft. Over the years, we've won 34 medals at the Great American Beer Festival – starting with a Gold for our original Abbey Ale in 1993, and most recently winning Gold for our Trippel in 2021.

### 3. We Inspire Social & Environmental Change

We believe in using business as a force for good by addressing social and environmental challenges. Our commitment to accountability began in 2012 when we became a certified B Corporation. We have since used various tools, including a climate action plan, scalable philanthropy, advocacy, and brand mobilization to donate over \$30 million and support important movements for change.

### 4. We Have a Hell of a Lot of Fun

We prioritize fun in our business to foster connection, inclusivity, and innovation. We encourage risk-taking and authenticity because groundbreaking ideas come from diverse experiences. We cultivate an intentional culture through programs like custom bikes for one-year anniversaries and paid sabbaticals at 10- and 20-year milestones.

Our internal company norms, as developed collectively by coworkers, are as follows:

**OUR VALUES**

**NEW BELGIUM** | **BELL'S**

## COMMITTING TO DO WHAT'S RIGHT, EVEN WHEN IT'S HARD

**We look out for each other**

- Prioritize the health and safety of ourselves and each other because our wellbeing is paramount
- Seek to understand and embrace our differences because diversity and inclusion make us better
- Assume good intent, be kind, and lean into curiosity because authentic relationships build trust

**We own our work & our impact**

- Share ideas, pose questions, and elevate solutions because everyone's voice matters
- Take pride in the quality of our work and improve from our mistakes because 'world-class' applies to all of us
- Practice stewardship of our planet and our communities because their health enables everyone's success

**We succeed (& stumble) together**

- Champion each other, express gratitude, and celebrate wins – big and small – because fun and recognition matter
- Think big, challenge the status quo, and embrace change because the world evolves constantly
- Work together to meet the myriad needs of the company, our coworkers, and our families because we are all interdependent

## B Corp certification

B Corp is a certification granted to for-profit companies by B Lab, a non-profit organization, that recognizes companies committed to utilizing their operations to build a more inclusive and sustainable economy. B Corps aim to minimize inequality and poverty levels, while promoting healthier environments, stronger communities, and good jobs. Companies are assessed based on their impact on coworkers, communities, customers, and the environment, as well as how well their practices are anchored within company governance.

New Belgium has been a certified B Corporation since 2012, using the power of business to solve social and environmental problems since our founding. Our B Corp certification enables us to track our progress over time and compare ourselves to other values-driven companies, allowing us to continue protecting our culture and values. Our commitment to social and environmental accountability starts at the foundation of our corporate structure, and we leverage every tool at our disposal, including a leading climate action plan, a scalable philanthropy model, vocal advocacy in the policy arena, and a long tradition of using our brand to mobilize customers in support of the world's most pressing movements for change.

## New Belgium key communities

Community involvement and partnering with community organizations have always been a part of New Belgium's ethos. We work with nonprofits across the country to positively impact communities where we do business, to give back to those who have supported us along the way, and to advocate for a future that's bright for all.

As a relationship-based company, we strive to do right by our customers and their communities, regardless of location, and we're particularly committed to supporting our hometown communities where our breweries are located and where most of our coworkers live. To that end, we provide quality healthcare, a living wage, and work daily to provide a welcoming and inclusive culture to our employees. Furthermore, we donate money and volunteer time to support the health of local watersheds and the communities we call home. In 2022 alone, we donated a total of \$566,729 to our hometown community partners and charitable organizations, with specific amounts of \$116,631 in Asheville, NC, \$181,225 in Fort Collins, CO, and \$268,873 in Michigan (Comstock, Kalamazoo, Escanaba).

We also prioritize key markets where we are driving racial/ethnic diversity, inclusion, and equity in craft beer. We recognize that Black, Indigenous, People of Color (BIPOC) are underrepresented in the craft beer industry, comprising only 15% of craft beer drinkers despite representing 41% of the total population. Moreover, BIPOC Americans continue to experience a lack of access to social services, employment opportunities, and representation among top decision-makers in government and business, which perpetuates



marginalization. As a key driver of the American economy, we believe that businesses have a role to play in improving equity among underrepresented citizens.

We have taken several initiatives to promote racial and ethnic diversity, inclusion, and equity in the craft beer industry. In 2018, we formed a multicultural marketing initiative, now led by a multicultural marketing manager and her team, to develop new relationships in underrepresented communities such as Atlanta, New York City, Miami, and Los Angeles. The multicultural marketing team works to introduce community members to craft beer, donate philanthropy dollars to



uplift the community into economic prosperity, and provide exposure to the careers available within craft beer. Additionally, in 2021 and 2022, our Brewed For All on-premise sales program brought our Human Powered Business Principles to the marketplace and supported LGBTQ+ rights and outreach. In 2023, in partnership with HospitableMe, we launched Poured for All, a completely free digital training available to any bar or restaurant that seeks to provide a welcoming and inclusive space for all.

We have also established several systems to encourage employees to make a difference as individuals. These include the New Belgium Coworker Assistance Fund, which provides financial support to coworkers experiencing personal hardship or catastrophic disaster, and the Beer Scouts Volunteer Program, which sponsors volunteer events and offers paid time off and funding for coworker participation. Additionally, the company has a direct giving program that involves a coworker grants committee allocating funds to worthy organizations and a practice at retail locations where coworkers decline tips and pool the money to support local charities. These programs are part of New Belgium's commitment to a high involvement culture that shares wealth, opportunity, and responsibility among its employees.

### Outcomes in Climate action, DE&I, and Thriving Communities

Through our community engagement activities, we have achieved significant positive outcomes. Specifically, in terms of climate action, we have helped build the early stages of a transition from an extractive economy to a regenerative economy that prioritizes fairness and

equity for workers, communities, and the environment. Our efforts have also strengthened the resilience of social, economic, and ecological systems to withstand and recover from climate-related shocks and stresses, particularly related to our supply chain.

Regarding Diversity, Equity, and Inclusion, we have made strides in the early stages of diversifying the craft beer industry to accurately represent our country's diverse population. We have contributed to efforts



Employee volunteer service project with our partner Grid Alternatives, the leading voice in low-income solar policy and the nation's largest nonprofit solar installer. Grid Alternatives provides no-cost solar installations for households qualifying as low-income, and solar training to connect people to clean energy jobs for a more equitable economy.



ensuring fair participation in the economic system and protection of all citizens' ability to participate fully in society. Furthermore, our initiatives have promoted inclusive access to the outdoors for people of all ages, ethnicities, abilities, and income levels, making sure that our public lands and waters respect all cultures and engage all people actively.

Lastly, we have helped create sustainable, inclusive, connected, and fun local communities where everyone has better ability to thrive. We are committed to promoting resilience, relief, and recovery during times of disasters while also encouraging the responsible enjoyment of beer.

## Leveraging our Human Powered Business model to meet the most pressing issues of our time

Our world faces historic challenges – including economic inequality, climate change, and racial injustice. Corporations must play a role in promoting real solutions. Unfortunately, despite well-publicized promises to change, corporate America continues to struggle to center the wellbeing of coworkers, communities, and the environment in their actions. The past four decades have seen corporate America become increasingly dehumanized.

Human Powered Business seeks to reverse these trends. If widely adopted, we believe Human Powered Business will greatly accelerate the pace of solutions to our biggest challenges – while also building stronger, more profitable, and more resilient businesses over the long term. We invest in our coworkers, and, in turn, they invest themselves in the business and our broader purpose. Our coworkers don't work for us; we

work for them.

These practices may seem costly at first glance. However, the cost of enormous challenges like climate change, widespread inequality, and systemic racial injustice are exponentially more expensive in the big picture for each company, and for society as a whole. And, in the long run, businesses that invest deeply in the wellbeing of people and our planet show more growth, greater resilience, and better financial performance overall.

No business is perfect, and that includes New Belgium. We're also a medium-sized company, and ultimately, we can only have a medium-sized impact. Our goal is to tell our story transparently – the ups and the downs – in the hopes that other companies may start adopting the Human-Powered Business model and join a movement for a more prosperous, equitable, and people-centric economy.

## New Belgium's business as a Force for Good

New Belgium believes in being a force for good. Our philanthropy funds are not simply charity. These programs are about being in relationship with the communities in which we do business. In this way, we maintain a more humanized approach to business which we, our coworkers, and our communities find more meaningful and fulfilling. This approach deepens our customers' loyalty, attracts new customers, and ultimately benefits our business, making it a true win-win.

This was all inspired by our founder/former-CEO, who was a social worker prior to starting the brewery. She paid great attention to the human side of business. Instead of building the brewery in the industrial center

and creating an industrial culture, New Belgium chose a dilapidated piece of property that could be fixed up and beautified for our community. Our brewing locations are always in the center of town, allowing us to be not just a factory, but also a meaningful gathering place for our communities. This has inspired a community-centric way of doing business that ultimately operates in a way that drives both business value and social value.



### Meghan Oleson

Social Impact Senior Manager  
New Belgium Brewing Company

Meghan Oleson is a part of New Belgium's Environmental Social & Governance (ESG) team. She is responsible for leading and implementing social impact programs as they relate to community investment, volunteerism, corporate and coworker giving programs, and company purpose.

## CSV Stories

The Environment



# Creating Positive Impact on Society through Active Engagement with Natural Capital

**Yoko Okonogi**

CSV Strategy Department  
Kirin Holdings Company, Limited

### Related Management Issues

- Sustainable use of biological resources
- Sustainable use of water resources
- Overcoming climate change

### Sustainable Development Goals



The Kirin Group aims to achieve sustainable growth by implementing the cycle of value creation, with CSV at the core of its business operations. One of the priority social issues we have identified is the environment. Kirin Group's Environmental Vision 2050, announced in 2020, aims to "Enrich the Earth with Positive Impact" and addresses four main issues: biological resources, water resources, containers and packaging, and climate change. We believe that these issues are interrelated and require a holistic approach.

## The increasing importance of adopting a holistic approach to complex and interrelated environmental issues

Climate change affects global warming, shrinking daily temperature differences, and changes in rainfall, and will have consequences for natural capital\*<sup>1</sup> such as crops and water. Climate change and natural capital are interconnected, and it is essential to address and resolve them in a holistic manner.

On the other hand, there is a difference between these impacts. While greenhouse gases (GHGs) are dispersed into the atmosphere, resulting in global

climate change regardless of where they are emitted, the impact on natural capital is location-specific. Altering land, for instance, can cause the loss of unique biodiversity that exists only in a particular place or river, and the consequences will vary from place to place. Addressing climate change requires global measures, whereas tackling natural capital demands understanding and addressing issues at a local level.

For over a decade, the Kirin Group has acknowledged the interrelatedness of environmental issues and the importance of a holistic approach, and has been conducting research to unveil the impact. This allowed us to quickly engage in TCFD\*<sup>2</sup> scenario

analysis for climate change. In addition, we participated in The TNFD\*<sup>3</sup> Forum and disclosed information related to natural capital on a trial basis, based on the TNFD LEAP\*<sup>4</sup> Approach in July 2022.

- \*1 Natural capital is the stock of natural assets that provide society with flows of renewable and non-renewable resources and ecosystem services.
- \*2 TCFD, which stands for Task Force on Climate-related Financial Disclosures, was established by the Financial Stability Board (FSB) at the request of the G20 Finance Ministers and Central Bank Governors' Meeting. Its purpose is to develop guidance to help organizations understand and disclose the financial implications of risks and opportunities posed by climate change.
- \*3 TNFD, which stands for Taskforce on Nature-related Financial Disclosures, was established to develop guidance for companies and other stakeholders to disclose nature-related risks and dependencies on nature. Its purpose is to redirect funding towards nature positive initiatives, with the goal of halting the decline of nature and setting it on a path to recovery by 2030.
- \*4 LEAP (Locate, Evaluate, Assess, Prepare) is TNFD's recommended approach for assessing a company's nature-related risks and opportunities

## Natural capital is the foundation of the Kirin Group's business

The Kirin Group has a brewing philosophy called "Reverence for Life." It recognizes that the Group's businesses—alcoholic and non-alcoholic beverages, and pharmaceuticals—rely on water and crops as raw materials of fermentation by microorganisms. We are in awe of the fact that they are made from life, which is why we humbly lean the science of life. As a company that operates with the blessings of nature, Kirin believes that its corporate culture is closely linked to its respect for the diversity of people and the natural environment. The loss of precious natural capital is a significant risk for the

Kirin Group.

For instance, *Kirin Gogo-no-Kocha* has been using Sri Lankan black tea leaves since its launch, which we proudly feature in our marketing. Similarly, the grape varieties used to make Japanese wines, as specified by the Japanese Wine Labeling Standards, are a natural capital specific to certain regions where they are harvested. As many of our products are location-dependent, the inability to use locally-sourced ingredients could potentially harm the product concept and marketing strategies.

Next, there is a risk of divestment by ESG funds, a type of long-term investment essential for stable business continuation. In recent years, ESG investments have gained significant attention, and their proportion of total investments is increasing globally. The Kirin Group has been continuously disclosing TCFD scenario analysis since 2018 to identify diverse risks upstream in the value chain, particularly in agricultural raw materials and water resources, and to firmly address them. By doing so, we have built a solid foundation to receive continued support from long-term investors, and we can manage our business strategically and stably.

## The financial impact of natural capital risk

From a financial standpoint, the cost impact of reduced crop yields (barley, hops, grapes, black tea leaves, etc.) due to climate change, under the 4° C scenario, is estimated to range from approximately 2.5 to 9.7 billion yen. The cost of shutdowns caused by floods and droughts cannot be ignored either, with floods costing approximately 1 to 5 billion yen, and droughts costing approximately 30 to 600 million yen.

## The first in the world to disclose natural capital on a trial basis based on the TNFD's "LEAP Approach".

In March 2022, the TNFD published the "LEAP Approach," a framework for companies to understand and evaluate nature-related risks and opportunities, in the first beta version (v0.1) of the proposed disclosure framework for nature-related financial information. In response, we applied this approach to disclose information in the Kirin Group Environmental Report 2022, which was published in July of the same year. The TNFD stated that we were the first company in the world to do so.

We were able to disclose this information in a relatively short period of time, about four months, due to our prompt efforts in addressing natural capital issues based on our brewing philosophy of "Reverence for Life." Our efforts began after the 10th Conference of the Parties (COP10) to the Convention on Biological Diversity held in Nagoya in 2010. Unlike many companies that focused on forestry and other activities, we chose agricultural raw materials and water as our target products based on our materiality analysis and began our full-scale efforts to address natural capital as an important activity for sustainable business continuity. In 2011, we conducted a risk survey and assessment of biological resources and, in 2013, announced the Kirin Group Action Plan for the Sustainable Use of Biological Resources. We established a policy of not using agricultural crops that could damage tropical rainforests and identified black tea leaves, paper, and palm oil as biological resources for which risks should be reduced. In 2021, we added coffee beans and soybeans to the list considering business and social issues after completing the aforementioned three initiatives.



With regard to agricultural raw materials, we have been supporting tea farmers in Sri Lanka to obtain Rainforest Alliance certification\*5 since 2013. The certification training not only emphasizes the preservation of the ecosystem but also teaches the proper use of fertilizers and pesticides, and the planting of grasses that hold the soil together to prevent landslides and soil runoff during torrential rains caused by climate change. Every year, the Kirin Group representatives visit the area to build relationships of trust with tea estate managers and NGOs in charge of local training, as well as to understand local issues. The conservation of water sources within the tea plantations is one of the newly added activities. This February, Toru Yoshimura, CEO of Kirin Beverage, visited Sri Lanka.

We are also promoting the use of FSC®-certified paper in our paper containers to prevent the destruction of forests. These forests play a crucial role in absorbing and storing GHGs while also preserving biodiversity. In Japan, our beverage business has already achieved a 100% FSC-certified paper or recovered paper ratio for both paper containers and office paper, and we are working on expanding this initiative globally.

In addition, we have begun promoting the use of certified palm oil and supporting the acquisition of Rainforest Alliance certification for coffee beans in Vietnam.

Apart from that, we have been conducting an ecosystem survey at the Château Mercian Vineyard in collaboration with the National Agriculture and Food Research Organization (NARO). The transformation of idle and derelict land into a hedgerow and grass-cultivated vineyard has created a high-quality, extensive grassland environment that supports a diverse range of living creatures, and we are disseminating these

findings to the public through academic papers and other publications.

With regard to water risks, various measures have also been implemented based on risk/stress surveys conducted at the Kirin Group's global production sites. In Australia, where water stress is high, we have introduced advanced water treatment facilities with reverse osmosis membranes to prioritize water recycling, even if it increases energy consumption. Meanwhile, in Japan, where water stress is low, we have implemented water conservation measures that reuse and creatively save water, to the extent that energy consumption does not increase.



Kirin Gogo-no-Kocha Straight Tea, 250 ml LL Slim, using tea leaves from farms certificated by Rainforest Alliance FSC®C137754

In an effort to mitigate climate change, we are implementing renewable energy sources and energy conservation practices in our plants. Our ultimate goal is to realize a “society that continuously recycles plastics” that contributes to a circular economy, while simultaneously reducing GHG emissions and minimizing the negative impact on natural capital.

In this way, the Kirin Group has been promoting initiatives to resolve issues to lead a sustainable use of natural capital and a decarbonized society, taking into consideration trends in the international community, environmental impacts, and business materiality.

\*5 Rainforest Alliance certification is granted to farms that demonstrate their dedication to sustainable farming practices while prioritizing environmental protection and the well-being of farm workers.

<https://www.rainforest-alliance.org/>

## Sustainable use of natural capital through active engagement with the TNFD

The challenges posed by climate change and natural capital issues cannot be resolved by a single company; they must be tackled on a social level that expands beyond the boundaries of individual companies. Therefore, to ensure the sustainable use of natural capital, it is crucial to consider how companies, investors, and local communities are interconnected with, dependent on, and impacted by natural capital, in the same way as they are with climate change. TNFD provides the necessary framework to facilitate this consideration.

Unlike climate change, which has a straightforward measure in the form of GHG emissions, the challenge with natural capital lies in the fact that it cannot be measured by a single metric. To gain

acceptance among diverse stakeholders as TCFD does and make the disclosure of natural capital information mainstream, it is necessary to provide as many examples as possible. By leading the way, the Kirin Group can serve as a reference for other companies, and the widespread adoption of TNFD can contribute to creating a positive impact on society and the environment.

## Contributing to society by participating in the creation of a framework

The Kirin Group's environmental management has been elevated through its adoption of excellent disclosure frameworks. The Kirin Group Long-Term Environmental Vision, announced in 2013, was formulated and disclosed as a vision for identifying material issues and resolving them in response to the disclosure of "risks and opportunities related to climate change" on the CDP questionnaire. The Kirin Group's Environmental Vision 2050, announced in 2020, reflects the challenges identified through scenario analysis conducted in response to TCFD's final recommendations that were disclosed in 2017.

Thus, by disclosing information through initiatives such as TCFD and CDP, the Kirin Group has gained a scientific understanding of its own risks and impacts and has been able to reflect and enhance this knowledge in its environmental management. The establishment of a shared framework for society has facilitated greater mutual understanding between investors and the company, while external evaluation and feedback have fostered a deeper internal understanding of the issues at hand.

However, the TCFD and CDP frameworks do not allow general companies to reflect their opinions within the frameworks, despite being required to disclose information. In contrast, the TNFD, which is currently under development, takes an open innovation approach by incorporating input from companies in the framework's development. LEAP's trial disclosure results are also fed back to the TNFD, and we aim to contribute to making the TNFD framework even better by continuously participating in various pilot programs.

Through our active involvement in TNFD, SBTs for Nature\*6, TCFD, CDP, and other initiatives, we will continue to contribute to international rulemaking for better disclosure and the diffusion of rules and make a positive impact to enhance the sustainability of natural capital.

\*6 A movement aimed at establishing science-based targets for the sustainable use of natural capital, similar to the SBT initiative which sets targets for addressing climate change.



**Yoko Okonogi**

CSV Strategy Department Kirin Holdings Company, Limited

Joined Kirin Holdings in 2021. She majored in natural environmental studies and ecology, and since joining the company, she has been focusing on enhancing the sustainability of the Kirin Group's raw materials and biological resources. Furthermore, by participating in international rulemaking relating to natural capital, she aims to make the sustainable use of natural capital mainstream and create a positive impact.

## CSV Stories

A Responsible  
Alcohol Producer



# Lion's Commitment to Responsible Drinking and Innovation

## Justin Merrell

Sustainability Director  
Lion Pty Ltd

### Related Management Issues

- Dealing with alcohol-related problems

### Sustainable Development Goals



As a leading beverage company in Australia and New Zealand, Lion is committed to promoting responsible drinking and enabling customers to make informed choices that suit their lifestyle. Our dedication to sustainability, innovation, and partnerships with industry colleagues and community organizations is at the heart of our mission.

## Our commitment to responsible drinking

At Lion, we recognize the importance of eliminating the marketing, advertising, and sale of alcoholic beverages to minors. To this end, we've partnered with industry colleagues such as the International Alliance for Responsible Drinking (IARD) and are voluntarily rolling out "not for minors" labeling across our product range.

Additionally, over the past decade, Lion's Alcohol&Me program has been providing expert information on the effects of alcohol on the body and mind, helping New Zealanders make responsible choices and stay safe while drinking. The program is available as online modules and workplace workshops

and offers a variety of engaging educational materials, including videos, quizzes, interactive demonstrations, and personal reflection exercises.

Starting from humble beginnings as an internal workshop back in April 2013, Alcohol&Me has now helped to educate over 400,000 adult New Zealanders, equating to 10% of the country's population over the drinking age of 18, or an average of 100 people every day that are now equipped to make smarter drinking choices. The program has received high praise, with 89% of people who have done Alcohol&Me in New Zealand reporting making changes to their drinking behavior, and 95% saying they would recommend the program to others. Feedback from participants has been overwhelmingly positive, with comments such as "The workshop was extremely informative, interactive,





and engaging for our employees” and “I genuinely think it will be a powerful tool to change people’s perceptions and illusions about their drinking.” Following its success in New Zealand, Alcohol&Me has recently been launched in Australia. By continuously increasing the number of participants, we aim to contribute to a reduction in anti-social behavior and negative outcomes.

We also collaborate with industry and community organizations that share our vision. Since 2005, we have been a member of DrinkWise Australia, an independent not-for-profit that promotes safer drinking practices. In New Zealand, we partner with the Tomorrow Project, an industry-funded organization that supports the SMASHED Program, which uses live theatre to educate students and teachers on the dangers of underage drinking and how to cope with peer pressure and other risks associated with excessive drinking.

## Expanding the low and non-alcoholic market through innovation and sustainability

As a company, we’re committed to innovation that empowers our customers to make choices that suit their lifestyle. In 2022, we announced a major innovation within the non-alcoholic beer category with the launch of XXXX Zero, Australia’s first carbon-neutral alcohol-free beer. We’ve consistently responded to consumer tastes, such as pioneering the mid-strength market with the launch of XXXX Gold, and the new XXXX Zero reflects the shift in Australians’ drinking habits towards moderation.

We understand the potential for alcohol misuse and want to be part of a changing drinking culture that includes a drive towards moderation. We believe we have a responsibility to ensure our products aren’t consumed in ways that foster anti-social behavior or result in negative health outcomes. Building our portfolio of low and non-alcohol options is a core element of this. We’ve made a significant commitment to the growing non-alcohol beer category, having invested \$6 million on a de-alcoholizing plant at our Tooheys Brewery in



New South Wales to support our growing range of non-alcohol options, which now includes *James Squire Zero*, *Steinlager Zero*, *Speights Summit Zero*, and *XXXX Zero*.

When enjoyed responsibly, our products can be part of the social connection and interactions that are essential to wellbeing. As a company, we’re open about the potential for misuse and want to be part of the solution by promoting responsible drinking and providing our customers with innovative options that meet their needs.



**Justin Merrell**  
Sustainability Director  
Lion Pty Ltd

Justin Merrell is currently part of Lion’s Supply Chain team, where he is responsible for developing the company’s Sustainability agenda as Sustainability Director. Prior to his current role, he was Lion’s Environmental Director, providing leadership in environment strategy and compliance.