



SECOND PARTY OPINION

KIRIN HOLDINGS COMPANY, LIMITED. SOCIAL BOND DNV PERIODIC REVIEW (#1)

Prepared by: DNV Business Assurance Japan K.K.

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Revision history

Revision No.	Date of Issue	Remarks
0	23 June 2023	Initial

Disclaimer

Our assessment relies on the premise that the data and information provided by Issuer to us as part of our review procedures have been provided in good faith. Because of the selected nature (sampling) and other inherent limitation of both procedures and systems of internal control, there remains the unavoidable risk that errors or irregularities, possibly significant, may not have been detected. Limited depth of evidence gathering including inquiry and analytical procedures and limited sampling at lower levels in the organization were applied as per scope of work. DNV expressly disclaims any liability or co-responsibility for any decision a person or an entity may make based on this Statement.

Statement of Competence and Independence

DNV applies its own management standards and compliance policies for quality control, in accordance with ISO/IEC 17021:2011 - Conformity Assessment Requirements for bodies providing audit and certification of management systems, and accordingly maintains a comprehensive system of quality control, including documented policies and procedures regarding compliance with ethical requirements, professional standards and applicable legal and regulatory requirements. We have complied with the DNV Code of Conduct1 during the assessment and maintain independence where required by relevant ethical requirements. This engagement work was carried out by an independent team of sustainability assurance professionals. DNV was not involved in the preparation of statements or data included in the Framework except for this Statement. DNV maintains complete impartiality toward stakeholders interviewed during the assessment process.

 $^{^{1}}$ DNV Code of Conduct is available from DNV website (www.DNV.com)



I. Scope and Objectives

Kirin Holdings Company, Limited (hereinafter, Kirin Holdings) has commissioned DNV to conduct a a post-issuance periodic review of the "Social Bond" issued on 7 June 2022. The objective of the post-issuance periodic review of DNV is to ensure that Kirin Holdings meets the requirements of the Social Bond Principles (hereinafter, SBP) and the Social Bond Guidelines (hereinafter, SBGLs) described below, and to provide a second party opinion on the eligibility of this Social Bond.

Kirin Holdings issued a Social Bond on 7 June 2022. The issuance amount was JPY 20 billion. DNV conducted a periodic review (#1) based on the SBP and SBGLs, following the Kirin Sustainable Finance Framework Second Party Opinion (issued on 18 March 2022).

DNV, as an independent external reviewer, identified no real or perceived conflict of interest associated with the delivery of this second-party opinion for Kirin Holdings.

In this paper, no assurance is provided regarding the financial performance of the Social Bond, the value of any investment in the Social Bond, or the long-term social benefits of the transaction.

Standards to be Applied

No.	Standards/Guidelines	Scheme owner	Applied level ^{*1}
1.	Social Bond Principles	International Capital Market Association (ICMA), 2021	Apply
2.	Social Bond Guidelines	Financial Services Agency, 2021	Apply

^{*1} Apply: Eligibility for all four core common elements to each principle and guideline was evaluated.



II. Project Overview

The Kirin Group has identified "Health and Well-being" as one of the key issues within "CSV Purpose". It has determined "immunity", "brain function," and the "gut microbiome" as its three key areas and is endeavoring to solve health issues in these areas through providing products and services that use strategic ingredients produced by utilizing fermentation & biotechnology, the Kirin Group's core competencies.

Specifically, Kirin Group addresses the improvement of access to nutrition, support to brain function improvement and brain function decline prevention, and the maintenance of immune function. Human Milk Oligosaccharide (HMO), a unique nutrient of human breast milk, was successfully mass-produced by the Kirin Group's fermentation production technology utilizing microorganisms. β -Lactolin (Citicoline) is a proprietary ingredient derived from Kirin Group's brain research that supports the maintenance of memory, which declines with age. The world's first Lc-PLASMA activates pDC (Plasmacytoid dendritic cells), the command center of immune cells. By providing such highly functional products as the result of various research and development efforts, the Kirin Group contributes to solving social and health issues in Japan and around the world.

This time, Kirin Holdings has allocated a total of JPY 20 billion to the three projects for which eligibility has been confirmed.

Eligible projects	Social Projects Categories	Target population	Contribution to SDGs
Capital investment, operation, and procurement of raw materials contributing to the production of Human Milk Oligosaccharide (HMO)	Access to essential services (health, health care)	General public	Goals 2, 3, and 9
Capital investment, operation, and procurement of raw materials contributing to the production of Citicoline		General public, aging people, patients	Goals 2, 3, and 9
Capital investment, operation, and procurement of raw materials contributing to the research and development of Lc-PLASMA and the production of raw material powder utilizing Lc-PLASMA		General public, aging people, vulnerable youth	Goals 3 and 9



II. Responsibilities of Kirin Holdings and DNV

Kirin Holdings has provided the information and data used by DNV during the delivery of this review. DNV's second party opinion represents an independent opinion and is intended to inform Kirin Holdings and other interested stakeholders in the allocated Social Bond of whether the established criteria have been met, based on the information provided to us. In our work, we have relied on the information and the facts presented to us by Kirin Holdings.

DNV is not responsible for any aspect of the nominated assets referred to in this opinion and cannot be held liable if estimates, findings, opinions, or conclusions are incorrect. Thus, DNV shall not be held liable if any of the information or data provided by the management of Kirin Holdings and used as a basis for this assessment were not correct or complete.



IV. Basis of DNV's Opinion

To provide as much flexibility for the issuer, Kirin Holdings, as possible, we have adapted our Kirin Holdings Social Bond assessment methodology, which incorporate the requirements of the SBP and SBGLs, to create a Social Bond Eligibility Assessment Protocol (hereinafter, Protocol). (Refer to Schedule-2 and 3). The Protocol is applicable to Social Bond based on the SBP and SBGLs.

Our Protocol includes a set of suitable criteria that can be used to underpin DNV's opinion. The overarching principle and guidelines behind the criteria are that a Social Bond should "enable capital-raising and investment for new and existing projects with social benefits."

As per our Protocol, the criteria against which the Social Bond has been reviewed are grouped under four Principles:

• Principle One: Use of Proceeds

The Use of Proceeds criteria are guided by the requirement that a Social Bond issuer must use the funds raised to eligible activities. The eligible activities should produce clear social benefits.

Principle Two: Process for Project Evaluation and Selection

The Project Evaluation and Selection criteria are guided by the requirements that a Social Bond issuer should outline the process it follows when determining the eligibility of an investment using Social Bond proceeds and outline any impact objectives it will consider.

• Principle Three: Management of Proceeds

The Management of Proceeds criteria are guided by the requirements that a Social Bond should be tracked within the issuing organization, that separate portfolios should be created when necessary and that a declaration of how unallocated funds will be handled should be made.

• Principle Four: Reporting

The Reporting criteria are guided by the recommendation that at least Sustainability Reporting to the bond investors should be made of the use of finance proceeds and that quantitative and/or qualitative performance indicators should be used, where feasible.



V. Work Undertaken

Our work constituted a high-level review of the available information, based on the understanding that this information was provided to us by Kirin Holdings in good faith. We have not performed an audit or other tests to check the veracity of the information provided to us. The work undertaken to form our opinion included:

i. Pre-Issuance Assessment of Social Bond (*not included in this report)

- Creation of the issuer's specific Protocol, adapted to the purpose of the Social Bond, as described above and in Schedule-2 to this assessment;
- Assessment of documentary evidence provided by the issuer on this bond and supplemented by high-level desktop research. These checks refer to current assessment best practices and standards methodology;
- Discussions with the issuer, and review of relevant documentation;
- Documentation of findings against each element of the criteria.

ii. Post-Issuance Assessment of Social Bond ^{*}This Report

- Assessment of evidential documents provided by Kirin Holdings after the Social Bond issuance, and supplemental by desk review from a higher perspective;
- Interview with key personnel of Kirin Holdings and review the relevant documentation;
- Field research and inspection (if necessary);
- Review of the nominated projects and assets at the time of post-issuance (update of the details mentioned in Schedule-1);
- Document creation at the time of post-issuance verification.



VI. Findings and DNV's Opinion

DNV's findings and opinion are as follows.

(1) Use of Proceeds

DNV confirmed that the proceeds raised by Kirin Holdings from the Social Bond have been allocated to social projects, which are consistent with the following eligible project categories outlined in the SBP and SBGLs.

DNV also confirmed that these projects have social benefits and contribute to the three SDGs (2. Zero hunger, 3. Good health and well-being, and 9. Industry innovation and infrastructure).

<Social projects categories>

Access to essential services (health, health care)

Eligible projects	Time of allocation (actual)	Allocated amount
Capital investment, operation, and procurement of raw materials contributing to the production of Human Milk Oligosaccharides (HMO)	June - December 2022 (completed)	JPY 7.3 billion ^{*1} (refinancing ratio: 86.8%)
Capital investment, operation, and procurement of raw materials contributing to the production of Citicoline	June - December 2022 (completed)	JPY 9.5 billion (refinancing ratio: 58.7%)
Capital investment, operation, and procurement of raw materials contributing to the research and development of Lc- PLASMA and the production of raw material powder utilizing Lc-PLASMA	June - December 2022 (completed)	JPY 3.2 billion (refinancing ratio: 90.0%)
	Total amount	JPY 20 billion (refinancing ratio: 74.0%)

*1: Although allocations were made in local currency, DNV confirmed through the assessment that the allocation amount converted to Japanese yen was appropriate.

(2) Process for Project Evaluation and Selection

For the evaluation and selection of projects closely related to the key issues outlined in "CSV Purpose" and "Management Issues for Sustainable Growth (the Kirin Group Materiality Matrix (GMM)", DNV confirmed through the review that the accounting department and the CSV strategy department selected the eligible projects which meet the eligible criteria defined by the Framework, and the Executive Officer in charge of Financial Strategy made the final decisions on the selected eligible projects.

DNV confirmed that Kirin Holdings has met the eligibility criteria set out in the "Standards to be applied" in selecting the project in question, and that it has assessed and considered the negative impacts associated with the implementation of the project and identified the environmental and social risks in advance.



(3) Management of Proceeds

DNV confirmed how Kirin Holdings tracked and managed the proceeds during the period from the bond issuance to the periodic review.

Kirin Holdings allocated JPY 7.3 billion (refinancing ratio: 86.8%) of the proceeds raised from the Social Bond for THAI KYOWA's capital investment contributing to the production of Human Milk Oligosaccharide (HMO). Although the allocations were made in local currency, DNV confirmed through the assessment that the allocation amount converted to Japanese yen was appropriate.

Of the proceeds raised, JPY 9.5 billion (refinancing ratio: 58.7%) was allocated to the procurement of raw materials contributing to the production of Citicoline.

Furthermore, JPY 3.2 billion (refinancing ratio: 90.0%) of the proceeds raised was allocated to Capital investment, operation, and procurement of raw materials contributing to the research and development of Lc-PLASMA and the production of raw material powder utilizing Lc-PLASMA.

DNV confirmed that Kirin Holdings has fully allocated the JPY 20 billion raised from the Social Bond to the above three projects and that no unallocated proceeds have arisen.

(4) Reporting

DNV confirmed that Kirin Holdings plans to report annually on its website with regard to information specific to the Social Bond required by the SBP and SBGLs.

The annual report will include the allocation status of proceeds and social benefits as described below until the proceeds have been allocated to projects and the production facilities start operation.

Key reporting items will include the following.

<Allocation of Proceeds>

- Eligible criteria and the amount of allocated proceeds: Capital investment, operation, and procurement of raw materials contributing to the production of Human Milk Oligosaccharides (HMO) (JPY 7.3 billion); procurement of raw materials contributing to the production of Citicoline (JPY 9.5 billion); Capital investment, operation, and procurement of raw materials contributing to the research and development of Lc-PLASMA and the production of raw material powder utilizing Lc-PLASMA (JPY 3.2 billion)
- Management methods and the balance of unallocated proceeds: No balance of unallocated proceeds, managed in cash
- Proceeds to be allocated to refinancing: Capital investment, operation, and procurement of raw materials contributing to the production of Human Milk Oligosaccharides (HMO) (JPY 6.3 billion); procurement of raw materials contributing to the production of Citicoline (JPY 5.6 billion); Capital investment, operation, and procurement of raw materials contributing to the research and development of Lc-



PLASMA and the production of raw material powder utilizing Lc-PLASMA (JPY 2.9 billion)

<Social benefits>

- Human Milk Oligosaccharide production: Production facilities completed
- Citicoline production (food): 0.51 million continuous users of the products
 (Calculation method: sales volume ÷ intake per day ÷ 12 months duration of use)
- Citicoline production (Pharmaceutical): 1.02 million continuous users of the products (Calculation method: sales volume ÷ intake per day ÷ 6 months duration of use)
- Lc-PLASMA production: 0.64 million continuous users of the products

(Calculation method: sales volume \div intake per day \div 12 months duration of use)



Assessment Conclusion

On the basis of the information provided by Kirin Holdings and the work undertaken, it is DNV's opinion that Kirin Holdings meets the criteria established in the Protocol and is aligned with the stated definition and purpose of the Social Bond within the SBP and SBGLs, which is to "enable capital-raising and investment for new and existing projects with social benefits."

DNV Business Assurance Japan K.K.

June 23, 2023

Mark Robinson Manager, Sustainability Services DNV Business Assurance, Australia

M Konedon

Masato Kanedome Project Leader DNV Business Assurance Japan K.K.

Much.

Naoki Maeda Managing Director DNV Business Assurance Japan K.K.

(jmisjamoto

Yasuaki Miyamoto Team Leader DNV Business Assurance Japan K.K.

About DNV

Driven by our purpose of safeguarding life, property and the environment, DNV enables organisations to advance the safety and sustainability of their business. Combining leading technical and operational expertise, risk methodology and in-depth industry knowledge, we empower our customers' decisions and actions with trust and confidence. We continuously invest in research and collaborative innovation to provide customers and society with operational and technological foresight.

With our origins stretching back to 1864, our reach today is global. Operating in more than 100 countries, our 16,000 professionals are dedicated to helping customers make the world safer, smarter and greener.

Disclaimer

Responsibilities of the Management of the Issuer and the Second-Party Opinion Providers, DNV : The management of Issuer has provided the information and data used by DNV during the delivery of this review. Our statement represents an independent opinion and is intended to inform the Issuer management and other interested stakeholders in the Bond as to whether the established criteria have been met, based on the information provided to us. In our work we have relied on the information and the facts presented to us by the Issuer. DNV is not responsible for any aspect of the nominated assets referred to in this opinion and cannot be held liable if estimates, findings, opinions, or conclusions are incorrect. Thus, DNV shall not be held liable if any of the information or data provided by the Issuer's management and used as a basis for this assessment were not correct or complete.



Schedule-1 Social Bond Projects

The projects in the table are those that have already been allocated after the issuance of the Social Bond (as of March 2023).

Categories	Social Projects Categories	Eligible projects	Target population	Social Benefits	Time of allocation (actual)	Allocated amount
Businesses that contribute to the achievement of a society of health and longevity, mainly through infant and toddler health improvement and disease prevention		Capital investment, operation, and procurement of raw materials contributing to the production of Human Milk Oligosaccharide (HMO)	General public	Contributing to the health of a wide range of our customers through providing products containing Human Milk Oligosaccharide (HMO)	June - December 2022 (completed)	JPY 7.3 billion ^{*1} (refinancing ratio: 86.8%)
Businesses that contribute to the achievement of a society of health and longevity, through brain function improvement and brain function decline prevention	Access to essential services (health, health care)	Capital investment, operation, and procurement of raw materials contributing to the production of Citicoline	General public, aging people, patients	Contributing to brain function improvement and brain function decline prevention of our customers through providing products containing Citicoline as health food and pharmaceutical ingredients	June - December	JPY 9.5 billion (refinancing ratio: 58.7%)
Businesses that contribute to the achievement of a society of health and longevity, through the maintenance of immune function		Capital investment, operation, and procurement of raw materials contributing to the research and development of Lc- PLASMA and the production of raw material powder utilizing Lc-PLASMA	General public, aging people, vulnerable youth	Contributing to the maintenance of immune function of our customers through providing products containing Lc-PLASMA	June - December 2022 (completed)	JPY 3.2 billion (refinancing ratio: 90.0%)
			·	·	Total amount	JPY 20 billion (refinancing ratio: 74.0%)



Schedule-2 Social Bond Eligibility Assessment Protocol

The following SBP-1 ~ SBP-4 are DNV's Framework Eligibility Assessment Protocol created for Kirin Holdings based on the requirements of SBP (2021). The "Confirmed documents" in the work undertaken includes internal documents of the issuer and are provided by the Kirin Holdings as evidence of eligibility judgement for DNV.

SBP-1 Use of Proceeds

Ref.	Criteria	Requirements	Work Undertaken	DNV Findings
1a	Type of bond	 The bond must fall in one of the following categories: Use of Proceeds Bond Revenue Bond Project Bond Securitized or covered Bond 	 Confirmed Documents: Kirin Sustainable Finance Framework (hereinafter, Framework) Social bond periodic review materials Interviews with stakeholders 	Through the evaluation process, DNV confirmed that Kirin Holdings' Social Bond falls into the following categories. (Standard) Social Bond
1b	Social Project Categories	The cornerstone of a Social Bond is the utilization of the proceeds of the bond which should be appropriately described in the legal documentation for the security.	 Confirmed Documents: Framework Social bond periodic review materials 	DNV confirmed that all of the proceeds have been allocated to the following projects. "Access to essential services (health, healthcare)"
1c	Social benefits	All designated Social Project categories should provide clear socially sustainable benefits, which, where feasible, will be quantified or assessed by the issuer.	 Confirmed Documents: Framework Social bond periodic review materials Interviews with stakeholders 	DNV confirmed that the social project is a solution for the objective social issue, that local characteristics are taken into account, and that the target population and social contribution (outcome) of the project are clearly identified by the issuer. Specifically, DNV confirmed that each social project had social benefits respectively: production of Human Milk Oligosaccharide (HMO) for the health of a wide range of customers, production of Citicoline for brain function improvement of customers, and production of Lc-PLASMA for maintenance of immune function of customers, and that the benefits were quantitatively evaluated in terms of the number of continuous users.



Ref.	Criteria	Requirements	Work Undertaken	DNV Findings
1d	share	proceeds may be used for refinancing, it is recommended that issuers provide an estimate of the share of financing vs.	FrameworkSocial bond periodic review	DNV confirmed that the proceeds from the Social Bond have been fully allocated to Social Bond projects listed in Schedule-1. Kirin Holdings will report the eligible projects and refinancing ratios in its annual reporting.



SBP-2 Process for Project Selection and Evaluation

Ref.	Criteria	Requirements	Work Undertaken	DNV Findings
2a	Investment- decision process	 The issuer of a Social Bond should outline the decision making process it follows to determine the eligibility of projects using Social Bond proceeds. This includes, without limitation: A process to determine how the projects fit within the eligible Social Projects categories identified in the ICMA SBP 2020; The criteria making the projects eligible for using the Social Bond proceeds; The social sustainability objectives 	 Confirmed Documents: Framework Social bond periodic review materials Project selection records Interviews with stakeholders 	DNV confirmed that the accounting department and the CSV strategy department selected the eligible projects which meet the eligible criteria defined by the Framework, and the Executive Officer in charge of Financial Strategy made the final decisions on the selected eligible projects. DNV also confirmed that Kirin Holdings has met the eligibility criteria set out in the "Standards to be applied" in selecting the project in question, and that it has assessed and considered the negative impacts associated with the implementation of the project and identified the environmental and social risks in advance.
2b	Issuer's environmental social governance framework	In addition to information disclosed by an issuer on its Social Bond process, criteria and assurances, Social Bond investors may also take into consideration the quality of the issuer's overall framework and performance regarding social sustainability.	 Confirmed Documents: Framework Social bond periodic review materials Interviews with stakeholders 	DNV confirmed that Kirin Holdings' social projects are in line with Kirin Holdings' "CSV Purpose" and the Long-Term Management Vision "Kirin Group Vision 2027 (KV2027)," and compliance with environmental laws, regulations, ordinances and agreements with the relevant regions was taken into account when implementing the projects. DNV also confirmed that the social benefits of social projects have been clearly identified through the review of the Framework and other documents and interviews with relevant stakeholders.



SBP-3 Management of Proceeds

Ref.	Criteria	Requirements	Work Undertaken	DNV Findings
3a	Tracking procedure	The net proceeds of Social Bonds should be credited to a sub-account, moved to a sub- portfolio or otherwise tracked by the issuer in an appropriate manner and attested to by a formal internal process that will be linked to the issuer's lending and investment operations for Social Projects.	 Confirmed Documents: Framework Social bond periodic review materials Interviews with stakeholders 	DNV confirmed through document review and interviews the following required by the cash management. The net proceeds were credited to the account of Kirin Holdings and allocated through group companies and local subsidiaries to the eligible projects indicated in Schedule-1. DNV also confirmed that the proceeds from the Social Bond were managed by the internal management system, which specifies the recipients and the amount of proceeds to be allocated.
3b	Tracking procedure	So long as the Social Bonds are outstanding, the balance of the tracked proceeds should be periodically reduced by amounts matching eligible Social investments or loan disbursements made during that period.	 Confirmed Documents: Framework Social bond periodic review materials Interviews with stakeholders 	DNV confirmed through document review and interviews the following required by the cash management. Tracking and management of proceeds from the Social Bond (deposits, withdrawals, and balance checks) were conducted by the Kirin Holdings accounting department every month, and were controlled by the internal management system and internal regulations.
3c	Temporary holdings	Pending such investments or disbursements to eligible Social Projects, the issuer should make known to investors the intended types of temporary investment instruments for the balance of unallocated proceeds.		DNV confirmed through document review and interviews the following required by the cash management. The proceeds were fully allocated and there is no unallocated balance. The proceeds were managed in cash until the time of actual allocation.



SBP-4 Reporting

Ref.	Criteria	Requirements	Work Undertaken	DNV Findings
4a	Periodical reporting	In addition to reporting on the use of proceeds and the temporary investment of unallocated proceeds, issuers should provide at least annually a list of projects to which Social Bond proceeds have been allocated including - when possible with regards to confidentiality and/or competitive considerations - a brief description of the projects and the amounts disbursed, as well as the expected socially sustainable impact.	Confirmed Documents: • Framework • Social bond periodic review materials Interviews with stakeholders	 DNV confirmed that Kirin Holdings plans to disclose information on the Kirin Holdings website regarding specific items required by the Social Bond (reporting of allocation status and impact reporting). Eligible criteria and the amount of allocated proceeds: Capital investment, operation, and procurement of raw materials contributing to the production of Human Milk Oligosaccharides (HMO) (JPY 7.3 billion); procurement of raw materials contributing to the production of Citicoline (JPY 9.5 billion); Capital investment, operation, and procurement of raw materials contributing to the research and development of Lc-PLASMA and the production of raw material powder utilizing Lc-PLASMA (JPY 3.2 billion) Management methods and the balance of unallocated proceeds: No balance of unallocated proceeds, managed in cash Proceeds to be allocated to refinancing: Capital investment, operation, and procurement of raw materials contributing to the production of Human Milk Oligosaccharides (HMO) (JPY 6.3 billion); procurement of raw materials contributing to the production of Citicoline (JPY 5.6 billion); Capital investment, operation, and procurement of raw materials contributing to the production of Citicoline (JPY 5.6 billion); Capital investment, operation, and procurement of raw materials contributing to the production of Citicoline (JPY 5.6 billion); Capital investment, operation, and procurement of raw materials contributing to the production of Citicoline (JPY 5.6 billion); Capital investment, operation, and procurement of raw materials contributing to the research and development of Lc-PLASMA (JPY 2.9 billion) Human Milk Oligosaccharide production: Production facilities completed Citicoline production (food): 0.51 million continuous users of the products Lc-PLASMA production: 0.64 million continuous users of the products