

Second-Party Opinion

The Norinchukin Bank Sustainable Bond Framework

Evaluation Summary

Sustainalytics is of the opinion that the Norinchukin Bank Sustainable Bond Framework is credible and impactful and aligns with the Sustainability Bond Guidelines 2021, Green Bond Principles 2021 and Social Bond Principles 2023. This assessment is based on the following:



USE OF PROCEEDS The eligible categories for the use of proceeds – Renewable Energy, Clean Transportation, Green Buildings, Sustainable Marine Value Chains, Sustainable Marine Transport, Access to Essential Services (Healthcare), Access to Essential Services (Education), Affordable Housing and Affordable Basic Infrastructure (Water) – are aligned with those recognized by the Green Bond Principles and Social Bond Principles. Sustainalytics considers that investments in the eligible categories will lead to positive environmental or social impacts and advance the UN Sustainable Development Goals, specifically SDGs 3, 4, 6, 7, 9, 11 and 14.



PROJECT EVALUATION AND SELECTION Nochu’s Treasury and Forex division will be responsible for the process of evaluating and selecting eligible projects in line with the Framework’s eligibility criteria. Nochu’s Corporate Design division together with the front business units and the Treasury and Forex division, will provide the final approval for the selected eligible projects. Nochu’s Environmental and Social Risk Management Framework are applicable to all allocation decisions made under the Framework. Sustainalytics considers Nochu’s risk management systems to be adequate and the project evaluation and selection process to be in line with market practice.



MANAGEMENT OF PROCEEDS Nochu’s Treasury and Forex division will be responsible for tracking and managing the proceeds through an internal tracking system. Nochu intends to allocate proceeds within 24 months of issuance. Pending full allocation, unallocated proceeds will be held temporarily in the Bank’s account or in cash or cash equivalents, and may be invested in current funds, which the Bank has confirmed will exclude financing carbon-intensive assets or activities. This is in line with market practice.



REPORTING Nochu commits to report on the allocation of proceeds in a sustainable bond report, which will be published on its website on an annual basis until full allocation. In addition, Nochu intends to report on the environmental or social impacts of the use of proceeds using relevant impact metrics. Sustainalytics views Nochu’s allocation and impact reporting as aligned with market practice.

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Issuer Location	Tokyo, Japan

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Introduction

The Norinchukin Bank (“Nochu” or the “Bank”) is a national-level financial institution founded in Japan in 1923. Headquartered in Tokyo, the Bank serves as a national-level financial institution for agricultural, fishery and forestry cooperatives in Japan.¹ The Bank is engaged in three business areas: the food and agriculture business, the retail business and the investment business.² As of March 2023, the Bank had 3,365 employees and 19 branches in Japan, as well as three branches and two representative offices abroad.³

Nochu has developed the Norinchukin Bank Sustainable Bond Framework dated March 2024 (the “Framework”) under which it intends to issue green, social and sustainability bonds and use the proceeds to finance or refinance, in whole or in part, existing or future projects, aimed at supporting sustainable development and socio-economic advancement globally.

The Framework defines eligibility criteria in five environmental areas:

1. Renewable Energy
2. Clean Transportation
3. Green Buildings
4. Sustainable Marine Value Chains
5. Sustainable Marine Transport

The Framework defines eligibility criteria in four social areas:

1. Access to Essential Services (Healthcare)
2. Access to Essential Services (Education)
3. Affordable Housing
4. Affordable Basic Infrastructure (Water)

Nochu engaged Sustainalytics to review the Framework and provide a Second-Party Opinion on the Framework’s environmental and social credentials and its alignment with the Sustainability Bond Guidelines 2021 (SBG), Green Bond Principles 2021 (GBP) and Social Bond Principles 2023 (SBP).⁴ The Framework has been published in a separate document.⁵

Scope of work and limitations of Sustainalytics’ Second-Party Opinion

Sustainalytics’ Second-Party Opinion reflects Sustainalytics’ independent⁶ opinion on the alignment of the reviewed Framework with the current market standards and the extent to which the eligible project categories are credible and impactful.

As part of the Second-Party Opinion, Sustainalytics assessed the following:

- The Framework’s alignment with the Sustainability Bond Guidelines 2021, Green Bond Principles 2021, and Social Bond Principles 2023, as administered by ICMA;
- The credibility and anticipated positive impacts of the use of proceeds; and
- The alignment of the issuer’s sustainability strategy and performance and sustainability risk management in relation to the use of proceeds.

For the use of proceeds assessment, Sustainalytics relied on its internal taxonomy, version 1.15, which is informed by market practice and Sustainalytics’ expertise as an ESG research provider.

As part of this engagement, Sustainalytics held conversations with various members of Nochu’s management team to understand the sustainability impact of their business processes and planned use of proceeds, as well as management of proceeds and reporting aspects of the Framework. Nochu representatives have

¹ The Norinchukin Bank, “About the Norinchukin Bank”, at: <https://www.nochubank.or.jp/en/about/>

² The Norinchukin Bank, “Toward a leading bank that supports the agriculture, fishery and forestry industries, food production and consumption, and the daily lives of local communities”, at: <https://www.nochubank.or.jp/en/about/business/index.html>

³ The Norinchukin Bank, “Annual Report 2023”, at: https://www.nochubank.or.jp/en/ir/annual_report/pdf/ar_2023.pdf

⁴ The Sustainability Bond Guidelines, Green Bond Principles, and Social Bond Principles are administered by the International Capital Market Association and are available at <https://www.icmagroup.org/sustainable-finance/the-principles-guidelines-and-handbooks/>

⁵ The Norinchukin Bank Sustainable Bond Framework is available on The Norinchukin Bank’s website at: https://www.nochubank.or.jp/en/ir/fixed_income_information/green_bond_information/

⁶ When operating multiple lines of business that serve a variety of client types, objective research is a cornerstone of Sustainalytics and ensuring analyst independence is paramount to producing objective, actionable research. Sustainalytics has therefore put in place a robust conflict management framework that specifically addresses the need for analyst independence, consistency of process, structural separation of commercial and research (and engagement) teams, data protection and systems separation. Last but not the least, analyst compensation is not directly tied to specific commercial outcomes. One of Sustainalytics’ hallmarks is integrity, another is transparency.

confirmed (1) they understand it is the sole responsibility of Nochu to ensure that the information provided is complete, accurate and up to date; (2) that they have provided Sustainalytics with all relevant information and (3) that any provided material information has been duly disclosed in a timely manner. Sustainalytics also reviewed relevant public documents and non-public information.

This document contains Sustainalytics' opinion of the Framework and should be read in conjunction with that Framework.

Any update of the present Second-Party Opinion will be conducted according to the agreed engagement conditions between Sustainalytics and Nochu.

Sustainalytics' Second-Party Opinion, while reflecting on the alignment of the Framework with market standards, is no guarantee of alignment nor warrants any alignment with future versions of relevant market standards. Furthermore, Sustainalytics' Second-Party Opinion addresses the anticipated impacts of eligible projects expected to be financed with bond proceeds but does not measure the actual impact. The measurement and reporting of the impact achieved through projects financed under the Framework is the responsibility of the Framework owner. In addition, the Second-Party Opinion opines on the potential allocation of proceeds but does not guarantee the realized allocation of proceeds towards eligible activities.

No information provided by Sustainalytics under the present Second-Party Opinion shall be considered as being a statement, representation, warrant or argument, either in favour or against, the truthfulness, reliability or completeness of any facts or statements and related surrounding circumstances that Nochu has made available to Sustainalytics for the purpose of this Second-Party Opinion.

Sustainalytics' Opinion

Section 1: Sustainalytics' Opinion on the Norinchukin Bank Sustainable Bond Framework

Sustainalytics is of the opinion that the Norinchukin Bank Sustainable Bond Framework is credible and impactful and aligns with the four core components of the GBP and SBP. Sustainalytics highlights the following elements of the Framework:

- Use of Proceeds:
 - The eligible categories – Renewable Energy, Clean Transportation, Green Buildings, Sustainable Marine Value Chains, Sustainable Marine Transport, Access to Essential Services (Healthcare), Access to Essential Services (Education), Affordable Housing and Affordable Basic Infrastructure (Water) – are aligned with those recognized by the GBP and SBP.
 - The Framework has defined a look-back period of two years for refinancing of operating expenditures, which Sustainalytics considers to be aligned with market practice.
 - Under the Renewable Energy category, Nochu may finance or refinance the construction, maintenance and operation of renewable energy projects and supporting infrastructure, in accordance with the following criteria:
 - Solar photovoltaic (PV) and solar thermal energy generation facilities. Regarding solar thermal facilities, the Bank has confirmed to Sustainalytics that it intends to finance facilities where more than 85% of the energy generated is derived from solar energy.
 - Onshore and offshore wind energy generation facilities.
 - Geothermal power generation facilities with direct emissions up to 100 gCO₂e/kWh.
 - Biomass power plants with life cycle GHG emissions intensity up to 100 gCO₂e/kWh, where the feedstock is waste residue (including wood chips and wood pellets) sourced from sustainable forest operations. The Bank has confirmed to Sustainalytics that: i) waste feedstock will be sourced from forests certified by the Sustainable Biomass Program (SBP),⁷ Forest Stewardship Council (FSC),⁸ Programme for the Endorsement of Forest Certification (PEFC)⁹ or other certification schemes; and ii) feedstock from non-RSPO certified palm oil operations will be excluded. Sustainalytics considers the aforementioned certifications as credible and aligned with market practice. However, Sustainalytics also notes that it is market expectation to specify all eligible schemes

⁷ SBP, at: <https://sbp-cert.org/>

⁸ FSC, at: <https://fsc.org/en>

⁹ PEFC, at: <https://www.pefc.org/>

- and encourages the Bank to report on other forest certification schemes it intends to consider under this activity.
- Green hydrogen or ammonia production with emissions below 3 tCO₂e/tH₂. Nochu has confirmed to Sustainalytics that the production process will be powered by renewable energy.
 - Transmission and distribution systems (power lines and related infrastructure, such as substations) where more than 67% of the newly connected generation capacity in the system has a life cycle emissions intensity below 100 gCO₂e/kWh over a rolling five-year period.
 - Sustainalytics considers investments under this category to be in line with market practice.
- Under the Clean Transportation category, Nochu may finance or refinance electric or hybrid passenger rail with emissions intensity below 50 gCO₂/pkm and supporting infrastructure according to the following eligibility criteria:
 - Construction, maintenance and operation of light rail lines, high-speed rail lines and tunnels. The Bank has confirmed to Sustainalytics that the tunnel infrastructure will be dedicated to low-carbon rail.
 - Manufacture of electric trains, including spare and related parts, such as rolling stock and rail tracks dedicated to low-carbon rail.
 - Sustainalytics considers investments under this category to be in line with market practice.
 - Under the Green Buildings category, Nochu may finance or refinance residential and commercial real estate properties¹⁰ certified by one of the following green building certifications: i) LEED (Gold or above);¹¹ ii) BREEAM (Excellent or above);¹² iii) CASBEE for Buildings (A or above);¹³ or iv) DBJ Green Building Certification (4 stars or above).¹⁴ Sustainalytics views the certification schemes and levels specified in the Framework to be credible and considers investments under this category to be in line with market practice.
 - Under the Sustainable Marine Value Chain category, Nochu may finance or refinance projects and investments related to fisheries and aquaculture activities certified by: Marine Stewardship Council (MSC);¹⁵ Aquaculture Stewardship Council (ASC);¹⁶ or Marine Eco-Label Japan (MEL).¹⁷ Sustainalytics considers investments under this category to be in line with market practice.
 - Under the Sustainable Marine Transport category, Nochu may finance or refinance the production, maintenance and operation of vessels (such as cargo ships) that have zero direct tailpipe CO₂ emissions. The Bank has confirmed to Sustainalytics that the financing of such vessels will be limited to those operations that do not engage in the transportation of fossil fuel freight. Sustainalytics considers investments under this category to be in line with market practice.
 - Under the Access to Essential Services (Healthcare) category, Nochu may finance or refinance the construction, maintenance and operation of public hospitals which will be available to all regardless of ability to pay. Sustainalytics recognizes that financing such infrastructure may help in improving the quality of healthcare and hence considers the activity to be socially impactful.
 - Under Access to Essential Services (Education) category, Nochu may finance or refinance the construction, maintenance and operation of public schools which will be available to all regardless of ability to pay. Sustainalytics considers that such expenditures may enhance access to education and improve its quality and hence considers the financing to create positive social impacts.
 - Under the Affordable Housing category, Nochu may finance or refinance the construction, maintenance and operation of public housing through public-private partnerships or private finance initiatives in the UK and Ireland. The Bank has confirmed to Sustainalytics that financing will be directed to affordable housing projects for rental to low-to-middle income individuals through i) the public housing providers registered with the Regulator of Social Housing in the

¹⁰ The properties include those owned by Japanese real estate investment trusts.

¹¹ LEED, at: <https://www.usgbc.org/leed>

¹² BREEAM, at: <https://bregroup.com/products/breeam/>

¹³ CASBEE, at:

<https://www.ibec.or.jp/CASBEE/english/#:~:text=Comprehensive%20Assessment%20System%20for%20Built,buildings%20and%20the%20built%20environment>.

¹⁴ DBJ, at: https://www.dbj.jp/en/service/program/g_building/

¹⁵ MSC, at: <https://www.msc.org/standards-and-certification/the-msc-standards>

¹⁶ ASC, at: <https://asc-aqua.org/new-standards-programme-improvements/aligned-farm-standard/>

¹⁷ MEL, at: <https://melj.jp/eng/wp-content/uploads/2019/04/Fisheries-Management-StandardFMSver.2.0.pdf>

UK;¹⁸ or ii) recognized as an affordable housing by the Ireland's Department of Housing, Local Government and Heritage.¹⁹ Sustainalytics notes the following:

- In the context of the UK, Sustainalytics notes that the Regulator mandates the public housing providers to adhere to rent standard that introduces a rent formula subject to a maximum ceiling of a rent cap.²⁰ For affordable housing project in Ireland, Sustainalytics notes that housing supports such as rent cap are available to beneficiaries through cost rental scheme that aim to make housing more affordable.²¹ Additionally, the Bank has confirmed that eligible affordable housing projects in Ireland will have adequate affordability measures in place for the targeted beneficiaries.
- Sustainalytics considers financing public housing projects with affordability measures in place for clearly defined low-income beneficiaries to be socially impactful. However, Sustainalytics notes that the role of the Bank is limited to financing housing through affordable housing providers in both countries and that the Bank does not have control over the detailed criteria for determining the low-income income groups deemed eligible for public housing schemes and the corresponding affordability mechanisms. As such, Sustainalytics encourages the Bank, where feasible, to provide further disclosure on the affordable housing programmes financed, including relevant beneficiaries as defined by regional authorities and to report on the social impacts achieved.
- Under the Affordable Basic Infrastructure (Water) category, Nochu may finance or refinance projects to improve the water supply and water treatment infrastructure, including desalination facilities. The Bank has confirmed to Sustainalytics that financing will be limited to i) desalination facilities that have reasonable assurances of appropriate waste management plans for brine disposal and ii) exclude integrated water and power plants with fossil fuel power. Further, the Bank has confirmed to Sustainalytics that it may finance desalination facilities that may rely primarily on power derived from carbon-intensive energy sources. Sustainalytics recognizes that such facilities may help to improve access to water but notes that desalination plants are highly energy intensive. Hence, Sustainalytics encourages Nochu to evaluate the carbon intensity of the power sources when selecting projects.
- Sustainalytics notes that the Framework excludes financing for the following activities: i) cluster bombs and munitions; ii) projects with adverse impacts to UNESCO World Heritage sites, wetlands designated as Wetlands of International Importance under the Ramsar Convention or high conservation value areas (IUCN Categories I- IV); iii) projects involving child or forced labour, land expropriation leading to involuntary resettlements and those affecting indigenous peoples' communities; iv) businesses dedicated to the extraction, refining or transportation of fossil fuels, palm oil, deforestation and weapons. Sustainalytics views positively the presence of exclusionary criteria in the Framework.
- Project Evaluation and Selection:
 - Nochu's Treasury and Forex division will be responsible for the process of evaluating and selecting eligible projects in line with the Framework's eligibility criteria. The Bank's front business units, consisting of the Project Finance division and the Real-estate Investment and Solution division will put together a list of eligible projects that will be further double checked by the Bank's Treasury and Forex division against the Framework criteria. Nochu's Corporate Design division (Sustainability Management Department) together with the front business units and Treasury and Forex division, will provide the final approval for the selected eligible projects.
 - Nochu's Environmental and Social Risk Management (ESRM) framework on managing and mitigating the environmental and social risks and are applicable to all allocation decisions made under the Framework. Sustainalytics considers these environmental and social risk management systems to be adequate and aligned with market expectations. For additional detail, see Section 2.
 - Based on the process for project evaluation and selection and the presence of a risk management system, Sustainalytics considers this process to be aligned with market practice.
- Management of Proceeds:
 - Nochu's Treasury and Forex division will be responsible for tracking and managing proceeds using an internal tracking system.

¹⁸ UK Government, "Regulator of Social Housing", at: <https://www.gov.uk/government/organisations/regulator-of-social-housing>

¹⁹ Government of Ireland, "Department of Housing, Local Government and Heritage", at: <https://www.gov.ie/en/organisation/departments-of-housing-local-government-and-heritage/>

²⁰ UK Government, "Guidance Rent Standard - from April 2023", at: <https://www.gov.uk/government/publications/rent-standard/rent-standard-april-2023-accessible-version>

²¹ Government of Ireland, "Department of Housing, Local Government and Heritage: Housing for All: Available supports", at: <https://www.gov.ie/en/publication/5568b-housing-for-all-available-supports/>

- The Bank intends to allocate proceeds within 24 months of issuance. Pending full allocation, unallocated proceeds will be held temporarily in the Bank's account, or in cash or cash equivalents. Additionally, unallocated proceeds may be invested in current funds, which the Bank has confirmed to Sustainalytics that such funds will exclude financing carbon-intensive assets or activities.
- Based on the use of an internal tracking system and the disclosure of temporary use of proceeds, Sustainalytics considers this process to be aligned with market practice.
- Reporting:
 - Nochu commits to report on the allocation of proceeds in a sustainable bond report, which will be published on its website on an annual basis until full allocation.
 - Allocation reporting will include information such as the total amount of net proceeds allocated to eligible projects and the outstanding amount of net proceeds yet to be allocated to projects at the end of the reporting period.
 - In addition, the Bank is committed to reporting on the estimated environmental and social impacts of the use of proceeds, using relevant impact metrics, such as annual power generation, number and types of environmental certifications obtained, number of clean and sustainable vessels financed, number of patients receiving medical services or number of hospitals beds, capacity of water supply or treatment facilities or volume of water supplied or treated annually.
 - Sustainalytics considers Nochu's allocation and impact reporting commitments to be aligned with market practice.

Alignment with Sustainability Bond Guidelines 2021

Sustainalytics has determined that the Norinchukin Bank Sustainable Bond Framework aligns with the four core components of the GBP and SBP.

Section 2: Sustainability Strategy of Nochu

Contribution to Nochu's sustainability strategy

Sustainalytics is of the opinion that Nochu demonstrates a commitment to sustainability by integrating environmental and social considerations into its operations and lending activities, with a primary focus on responsible investments.²² The Bank conducted a materiality assessment to identify the key sustainability-related issues relevant to its business and stakeholders.²³ The assessment identified five focus areas, including: i) promoting responsible finance; ii) promoting sustainability management; and iii) creating a positive impact on the agriculture, fishery and forestry industries, food and local communities.²⁴

In March 2023, Nochu updated its commitment to sustainability by establishing a target to achieve net zero by 2050.²⁵ To fulfil its commitment, the Bank joined the Net-Zero Banking Alliance (NZBA) and set the following interim targets for 2030: i) reducing financed emissions from its power sector lending portfolio to 138 gCO₂e/kWh from 165 gCO₂e/kWh; ii) reducing financed emissions per unit of investment in its investment portfolio of stocks and bonds by 49% in comparison with 2019; iii) securing a forest carbon sink of 9 million tCO₂/year from 2020; iv) reducing GHG emissions of its investees and financial customers by 50% compared to 2013; v) investing JPY 10 trillion (USD 69.4 billion)²⁶ in new sustainable finance loans and investments; vi) reducing the outstanding investment and loans for coal-fired thermal power to zero by 2040; and vii) reducing emissions from its own operations to zero.²⁷ As a part of its NZBA commitment, the Bank has set interim targets for 2030 for the electricity sector in its loan portfolio and will continue to set targets for at least one of the nine carbon-intensive sectors: oil and gas, iron and steel, power generation, coal, transportation, real estate, agriculture, cement and aluminium and implement a practice of periodic disclosure.²⁸ In 2022, Nochu had estimated the financed GHG emissions in its investment and finance portfolios and has targeted the measurement and to reduction of scope 3, category 15 emissions.²⁹ The Bank estimated 22.1 million tCO₂e

²² The Norinchukin Bank, "Sustainability", at: <https://www.nochubank.or.jp/en/sustainability/>

²³ The Norinchukin Bank, "Sustainability Report 2023", at: https://www.nochubank.or.jp/en/sustainability/pdf/2023/all_en.pdf

²⁴ Ibid.

²⁵ Ibid.

²⁶ As on 23 Jan 2023, the conversion of USD 1 is JPY 144.

²⁷ The Norinchukin Bank, "Sustainability Report 2023", at: https://www.nochubank.or.jp/en/sustainability/pdf/2023/all_en.pdf

²⁸ Ibid.

²⁹ Ibid.

of measured GHG emissions from its assets in the energy, transportation, materials and buildings and agriculture sectors.³⁰

Regarding Nochu's social objectives, the Bank has established a social medium to long term target of increasing income of farmers, fisherman and foresters. To achieve this goal, the Bank provides consultation to farmers, fisherman and foresters, offering support for the establishment of food and agricultural value chains through investments and loans to food and agriculture companies.³¹ Nochu has invested USD 100 million from Sustainable Development Bonds issued by the World Bank and the Inter-American Development Bank.³² These investments are expected to contribute to reducing the gender gap and enhancing food production globally.³³

Nochu also supports and participates in international initiatives on sustainability and climate change, including the United Nations Environment Programme Finance Initiative's Principles for Responsible Banking, the Partnership for Carbon Accounting Financials, Principles for Financial Action, Climate Action 100+, Asia Investor Group on Climate Change, Japan Impact-driven Financing Initiative, Keidanren Initiative for Biodiversity Conservation, Glasgow Financial Alliance for Net Zero and the United Nations Global Compact.³⁴

Sustainalytics is of the opinion that the Norinchukin Bank Sustainable Bond Framework is aligned with the Bank's overall sustainability strategy and initiatives and will further the Bank's action on its key environmental and social priorities.

Approach to managing environmental and social risks associated with the projects

Sustainalytics recognizes that proceeds from the bonds issued under the Framework will be directed towards projects expected to have positive environmental and social impacts. However, Sustainalytics is aware that such eligible projects could also lead to negative environmental and social outcomes. Sustainalytics notes that the Bank plays a limited role in the development of the projects and the financed assets, but it remains exposed to environmental and social risks associated with the projects that it may finance or refinance through its lending activities. Some key environmental and social risks possibly associated with the eligible projects may include issues involving credit lending risks, land use and biodiversity issues associated with large-scale infrastructure development, community relations and business ethics.

Sustainalytics is of the opinion that Norinchukin Bank is able to manage and mitigate potential risks through implementation of the following:

- Nochu has integrated ESG considerations into its lending portfolio and investment decisions by employing an evaluation that integrates financial analysis with an ESG assessment of the borrower. This is done by adopting an ESRM framework which involves conducting a due diligence of transactions or projects considering the environmental and social aspects as well as Equator Principles guidelines.^{35,36} The framework also includes a mechanism for continuous monitoring of ESG incidents of their borrowers.³⁷ Additionally, the Bank has established a Policy on Environmental and Social Considerations in Financing and Investment Activities that prohibits financing and investment in projects and activities that adversely impact the environment and society.³⁸
- The Bank manages land use and biodiversity risks associated with large-scale projects by adopting the Equator Principles guidelines.³⁹ This includes identifying and evaluating environmental risks associated with large-scale development projects to be financed. The Bank adopts a LEAP (Locate, Evaluate, Assess, Prepare) approach to analyzing and addressing natural capital and biodiversity risks and opportunities.⁴⁰ This approach helps the Bank to understand how its borrowers' dependencies on natural capital and biodiversity can impact the Bank through investments and borrowing. Additionally, the Bank's Policy on Measures Relating to Concern for the Environment and Society in Regard to Investment and Financing prohibits or

³⁰ Ibid.

³¹ The Norinchukin Bank, "Sustainability Report 2023", at: https://www.nochubank.or.jp/en/sustainability/pdf/2023/all_en.pdf

³² Norinchukin, "A Society Leaving No one Behind", at: <https://www.nochubank.or.jp/en/sustainability/social/furusato/>

³³ Ibid.

³⁴ The Norinchukin Bank, "Sustainability Report 2023", at: https://www.nochubank.or.jp/en/sustainability/pdf/2023/all_en.pdf

³⁵ Equator Principles, "Equator Principles EPA 4", (2020), at: https://equator-principles.com/app/uploads/The-Equator-Principles_EP4_July2020.pdf

³⁶ The Norinchukin Bank, "Sustainability Report 2023", at: https://www.nochubank.or.jp/en/sustainability/pdf/2023/all_en.pdf

³⁷ Ibid.

³⁸ The Norinchukin Bank, "Policy on Environmental and Social Considerations in Financing and Investment Activities", (2023), at: https://www.nochubank.or.jp/en/sustainability/management/esmr/pdf/Policy_for_Environmental_and_Social_Considerations.pdf

³⁹ Equator Principles, "Equator Principles EPA 4", (2020), at: https://equator-principles.com/app/uploads/The-Equator-Principles_EP4_July2020.pdf

⁴⁰ The Norinchukin Bank, "Sustainability Report 2023", at: https://www.nochubank.or.jp/en/sustainability/pdf/2023/all_en.pdf

restricts investment and financing for projects that raise concerns on safeguarding biodiversity in protected areas and forests.⁴¹

- Regarding community relations, the Bank conducts due diligence assessments and stakeholder engagement initiatives under its ESRM framework for social risks associated with its borrowers and related projects.⁴² The Bank's Basic Policy on the Norinchukin Bank Governance promotes establishment of dialogue channels with communities in areas affected by the Bank's activities.⁴³
- With respect to business ethics, the Bank's Code of Ethics and Code of Conduct provide guidance and outline the Bank's procedures to prevent, detect, manage and mitigate unethical business practices, including on bribery, corruption, consumer safety, privacy and conflicts of interest.^{44,45} Additionally, the Bank's 2019 Human Rights Policy mandates the Bank to conduct a due diligence review and a human rights impact assessment every three years in relation to the human rights impacts resulting from its business activities.^{46,47}

Based on these policies, standards and assessments, Sustainalytics is of the opinion that Nochu has implemented adequate measures and is well positioned to manage and mitigate environmental and social risks commonly associated with the eligible categories.

Section 3: Impact of Use of Proceeds

All nine use of proceeds categories are aligned with those recognized by the GBP or SBP. Sustainalytics has focused below on where the impact is specifically relevant in the local context.

Importance of financing renewable energy projects in Japan, the US and the EU

The energy sector accounted for more than two-thirds of global GHG emissions in 2021.⁴⁸ Energy-related emissions increased 6% from 2020 to 36.3 Gt in 2021.⁴⁹ More specifically in relation to electricity, demand is expected to nearly double between 2020 and 2050.⁵⁰ In this scenario, for the global energy sector to achieve net zero by 2050, the share of renewables in total global electricity generation would need to increase from 29% in 2020 to more than 60% in 2030 and nearly 90% in 2050.⁵¹ Additionally, in order to achieve net zero emissions by 2050 annual global investment in the energy sector is required to grow to USD 5 trillion by 2030 from USD 2 trillion in 2021.⁵²

In Japan, fossil fuels accounted for 88% of the primary energy supply in 2019, with the electricity and heating sector responsible for 48.7% of CO₂ emissions⁵³ and thermal plants accounting for 70% of electricity and heating production.^{54,55} Japan has set a goal to achieve climate neutrality by 2050 and aims to reduce its GHG emissions by 46% in 2030 compared to 2013.⁵⁶ To achieve its climate targets, Japan intends to: i) expand offshore wind power to 30-45 GW by 2040; ii) prioritize research and development of next generation solar cells to achieve commercialization by 2030; iii) achieve a market scale of more than JPY 1 trillion;⁵⁷ iv)

⁴¹ Ibid.

⁴² The Norinchukin Bank, "Initiatives to Manage Environmental and Social Risks", at: <https://www.nochubank.or.jp/en/sustainability/management/esmr/>

⁴³ Ibid.

⁴⁴ The Norinchukin Bank, "Code of Ethics", at: <https://www.nochubank.or.jp/en/about/ethics.html>

⁴⁵ The Norinchukin Bank, "Annual Report 2023", at: https://www.nochubank.or.jp/en/ir/annual_report/pdf/ar_2023.pdf

⁴⁶ The Norinchukin Bank, "Human Rights Policy", at: https://www.nochubank.or.jp/en/sustainability/management/policy/pdf/humanrights_policy.pdf

⁴⁷ The Norinchukin Bank, "Sustainability Report 2023", at: https://www.nochubank.or.jp/en/sustainability/pdf/2023/all_en.pdf

⁴⁸ IEA, "Greenhouse Gas Emissions from Energy Data Explorer", (2023), at: <https://www.iea.org/data-and-statistics/data-tools/greenhouse-gas-emissions-from-energy-data-explorer>

⁴⁹ IEA, "Global Energy Review: CO₂ Emissions", (2021), at: <https://iea.blob.core.windows.net/assets/c3086240-732b-4f6a-89d7-db01be018f5e/GlobalEnergyReviewCO2Emissionsin2021.pdf>

⁵⁰ IEA, "Net Zero by 2050: A Roadmap for the Global Energy Sector", (2021), at: https://iea.blob.core.windows.net/assets/deebef5d-0c34-4539-9d0c-10b13d840027/NetZeroBy2050-ARoadmapfortheGlobalEnergySector_CORR.pdf

⁵¹ Ibid.

⁵² Ibid.

⁵³ IEA, "Japan 2021 Energy Policy Review", (2021), at: https://iea.blob.core.windows.net/assets/3470b395-cfdd-44a9-9184-0537cf069c3d/Japan2021_EnergyPolicyReview.pdf

⁵⁴ Ding, D. (2022), "The impacts of carbon pricing on the electricity market in Japan", Humanities and Social Sciences Communication, at: <https://www.nature.com/articles/s41599-022-01360-9>

⁵⁵ IEA, "Japan 2021 Energy Policy Review", (2021), at: https://iea.blob.core.windows.net/assets/3470b395-cfdd-44a9-9184-0537cf069c3d/Japan2021_EnergyPolicyReview.pdf

⁵⁶ UNFCCC, "The Long-Term Strategy under the Paris Agreement", (2021), at: https://unfccc.int/sites/default/files/resource/Japan_LTS2021.pdf

⁵⁷ Government of Japan, Ministry of Economy, Trade and Industry, "Green Growth Strategy Through Achieving Carbon Neutrality in 2050: 01_Offshore wind pwr. Solar, heat energy", at: https://www.meti.go.jp/english/policy/energy_environment/global_warming/ggs2050/pdf/01_offshore.pdf

increase hydrogen production to 3 million tonnes by 2030 and 50 million tonnes by 2050.⁵⁸ Japan's 2020 Green Growth Strategy sets policies and an action plan for the country to achieve carbon neutrality and promote renewable energy installation to meet 50-60% of its electricity demand by 2050.⁵⁹

In EU, the energy sector accounted for 75% of the bloc's total GHG emissions and 6.2% of the global power sector emissions in 2022.⁶⁰ As part of its goal to achieve climate neutrality by 2050, the European Commission has committed to reducing GHG emissions by 55% by 2030 relative to 1990 levels.⁶¹ In 2022, the European Commission released its REPowerEU Plan, proposing to increase the share of renewable energy in the EU's final energy consumption from 40% to 45% by 2030.⁶² The plan also set targets to: i) install new solar PV systems, targeting a total capacity of over 320 GW by 2025 and nearly 600 GW by 2030;⁶³ and ii) increase the installed capacity of offshore wind to more than 60 GW by 2030 and 300 GW by 2050.⁶⁴

In the US, the electric power sector is responsible for 25% of total GHG emissions, the second-largest contributor after transportation.⁶⁵ The US has committed to reducing GHG emissions by at least 50% to 52% from a 2005 baseline by 2030 and achieving economy-wide net zero emissions by 2050 as part of its Nationally Determined Contribution.⁶⁶ In line with these targets, the US government set a goal to achieve 100% carbon pollution-free electricity by 2035.⁶⁷ Additionally, the 2022 Inflation Reduction Act targets a 40% reduction in carbon emissions by 2030⁶⁸ creating measures to expedite the deployment of clean energy through a combination of grants, loans, tax provisions and other incentives intended to accelerate investments in expanding the electricity grid and developing domestic clean technology manufacturing in the US.⁶⁹

Based on the above, Sustainalytics is of the opinion that Nochu's investments in renewable energy projects are expected to contribute to lowering energy related GHG emissions and contribute to national climate goals in Japan, the US and the EU.

Contribution to SDGs

The Sustainable Development Goals were adopted in September 2015 by the United Nations General Assembly and form part of an agenda for achieving sustainable development by 2030. The instruments issued under the Norinchukin Bank Sustainable Bond Framework are expected to help advance the following SDGs and targets:

Use of Proceeds Category	SDG	SDG target
Renewable Energy	7. Affordable and Clean Energy	7.2. By 2030, increase substantially the share of renewable energy in the global energy mix
Clean Transportation	11. Sustainable Cities and Communities	11.2. By 2030, provide access to safe, affordable, accessible and sustainable transport systems for all, improving road safety, notably by expanding public transport, with special attention to the needs of those in

⁵⁸ Government of Japan, Ministry of Economy, Trade and Industry, "Green Growth Strategy Through Achieving Carbon Neutrality in 2050: 02_Hydrogen, Fuel Ammonia", at: https://www.meti.go.jp/english/policy/energy_environment/global_warming/ggs2050/pdf/02_hydrogen.pdf

⁵⁹ IEA, "Japan 2021 Energy Policy Review", (2021), at: https://iea.blob.core.windows.net/assets/3470b395-cfdd-44a9-9184-0537cf069c3d/Japan2021_EnergyPolicyReview.pdf

⁶⁰ European Council and Council of the European Union, "5 facts about the EU's goal of climate neutrality", (2023), at: <https://www.consilium.europa.eu/en/5-facts-eu-climate-neutrality/#:~:text=Energy%20production%20and%20use%20is,of%20EU%20greenhouse%20gas%20emissions.>

⁶¹ European Commission, "2030 climate & energy framework", at: https://ec.europa.eu/clima/policies/strategies/2030_en

⁶² European Commission, "REPowerEU: A plan to rapidly reduce dependence on Russian fossil fuels and fast forward the green transition", (2022), at: https://ec.europa.eu/commission/presscorner/detail/en/IP_22_3131

⁶³ European Commission, "EU Solar Energy Strategy", (2022), at: https://eur-lex.europa.eu/resource.html?uri=cellar:516a902d-d7a0-11ec-a95f-01aa75ed71a1.0001.02/DOC_1&format=PDF

⁶⁴ European Commission, "Offshore renewable energy", at: https://energy.ec.europa.eu/topics/renewable-energy/offshore-renewable-energy_en

⁶⁵ US Environment Protection Agency, "Sources of Greenhouse Gas Emissions", at: <https://www.epa.gov/ghgemissions/sources-greenhouse-gas-emissions#>

⁶⁶ UNFCCC, "The United States of America Nationally Determined Contribution", (2022), at: <https://unfccc.int/sites/default/files/NDC/2022-06/United%20States%20NDC%20April%2021%202021%20Final.pdf>

⁶⁷ The White House, "FACT SHEET: President Biden Sets 2030 Greenhouse Gas Pollution Reduction Target Aimed at Creating Good-Paying Union Jobs and Securing U.S. Leadership on Clean Energy Technologies", (2021), at: <https://www.whitehouse.gov/briefing-room/statements-releases/2021/04/22/fact-sheet-president-biden-sets-2030-greenhouse-gas-pollution-reduction-target-aimed-at-creating-good-paying-union-jobs-and-securing-u-s-leadership-on-clean-energy-technologies/>

⁶⁸ IEA, "Inflation Reduction Act of 2022", (2023), at: <https://www.iea.org/policies/16156-inflation-reduction-act-of-2022>

⁶⁹ Ibid.

		vulnerable situations, women, children, persons with disabilities and older persons
Green Buildings	9. Industry, Innovation and Infrastructure	9.4. By 2030, upgrade infrastructure and retrofit industries to make them sustainable, with increased resource-use efficiency and greater adoption of clean and environmentally sound technologies and industrial processes, with all countries taking action in accordance with their respective capabilities
Sustainable Marine Value Chains	14. Life Below Water	14.2: By 2020, sustainably manage and protect marine and coastal ecosystems to avoid significant adverse impacts, including by strengthening their resilience, and take action for their restoration in order to achieve healthy and productive oceans
Sustainable Marine Transport	11. Sustainable Cities and Communities	11.2. By 2030, provide access to safe, affordable, accessible and sustainable transport systems for all, improving road safety, notably by expanding public transport, with special attention to the needs of those in vulnerable situations, women, children, persons with disabilities and older persons
Access to Essential Services (Healthcare)	3. Good Health and Wellbeing	3.8. Achieve universal health coverage, including financial risk protection, access to quality essential health-care services and access to safe, effective, quality and affordable essential medicines and vaccines for all
Access to Essential Services (Education)	4. Quality Education	4.1. By 2030, ensure that all girls and boys complete free, equitable and quality primary and secondary education leading to relevant and effective learning outcomes
Affordable Housing	11. Sustainable Cities and Communities	11.1. By 2030, ensure access for all to adequate, safe and affordable housing and basic services and upgrade slums
Affordable Basic Infrastructure (Water)	6. Clean Water and Sanitation	6.1. By 2030, achieve universal and equitable access to safe and affordable drinking water for all

Conclusion

Norinchukin Bank has developed the Norinchukin Bank Sustainable Framework under which it may issue green, social and sustainability bonds, and use the proceeds to finance or refinance, in whole or in part, existing or future projects expected to deliver positive environmental and social outcomes globally.

The Norinchukin Bank Sustainable Framework outlines a process for tracking, allocating and managing proceeds, and makes commitments for the Bank to report on allocation and impact. Sustainalytics believes that the Norinchukin Bank Sustainable Framework is aligned with the overall sustainability strategy of the Bank and that the use of proceeds will contribute to the advancement of the UN SDGs 3, 4, 6, 7, 9, 11 and 14. Additionally, Sustainalytics is of the opinion that Norinchukin Bank has adequate measures to identify, manage and mitigate environmental and social risks commonly associated with the eligible projects.

Based on the above, Sustainalytics is confident that Norinchukin Bank is well positioned to issue green, social, and sustainability bonds and that the Norinchukin Bank Sustainable Framework is robust, transparent and in alignment with the four core components of the Green Bond Principles and the Social Bond Principles.

Appendix 1: Sustainability Bond / Sustainability Bond Programme - External Review Form

Section 1. Basic Information

Issuer name:	The Norinchukin Bank
Green Bond ISIN or Issuer Green Bond Framework Name, if applicable:	The Norinchukin Bank Sustainable Bond Framework
Review provider's name:	Sustainalytics
Completion date of this form:	February 27, 2024
Publication date of review publication:	
Original publication date:	

Section 2. Review overview

SCOPE OF REVIEW

The review:

- ☒ assessed the 4 core components of the Principles (**complete review**) and confirmed the alignment with the GBP/SBP/SBG.
- ☐ assessed only some of them (**partial review**) and confirmed the alignment with the GBP/SBP/SBG (*delete where appropriate*); please indicate which ones:
- | | |
|---|---|
| ☐ Use of Proceeds | ☐ Process for Project Evaluation and Selection |
| ☐ Management of Proceeds | ☒ Reporting |
- ☐ assessed the alignment with other regulations or standards (CBI, EU GBS, ASEAN Green Bond Standard, ISO 14030, etc.); please indicate which ones:

ROLE(S) OF INDEPENDENT REVIEW PROVIDER

- | | |
|--|---|
| ☒ Second Party Opinion | ☐ Certification |
| ☐ Verification | ☐ Scoring/Rating |
| ☐ Other (please specify): | |

Does the review include a sustainability quality score?

- | | |
|--|--|
| ☐ Of the issuer | ☐ Of the project |
| ☐ Of the Framework | ☐ Other (please specify): |
| ☒ No scoring | |

ASSESSMENT OF THE PROJECT(S)

Does the review include:

- ☒ The environmental and/or social features of the type of project(s) intended for the Use of Proceeds?
- ☒ The environmental and/or social benefits and impact targeted by the eligible Green and/or Social Project(s) financed by the Green, Social or Sustainability Bond?
- ☒ The potentially material environmental and/or social risks associated with the project(s) (where relevant)?

ISSUER'S OVERARCHING OBJECTIVES

Does the review include:

- ☒ An assessment of the issuer's overarching sustainability objectives and strategy, and the policies and/or processes towards their delivery?
- ☒ An identification and assessment of environmental, social and governance related risks of adverse impact through the Issuer's [actions] and explanations on how they are managed and mitigated by the issuer?
- ☒ A reference to the issuer's relevant regulations, standards, or frameworks for sustainability-related disclosure and reporting?

CLIMATE TRANSITION STRATEGY

Does the review assess:

- ☐ The issuer's climate transition strategy & governance?
- ☐ The alignment of both the long-term and short/medium-term targets with the relevant regional, sector, or international climate scenario?
- ☐ The credibility of the issuer's climate transition strategy to reach its targets?
- ☐ The level/type of independent governance and oversight of the issuer's climate transition strategy (e.g., by independent members of the board, dedicated board sub-committees with relevant expertise, or via the submission of an issuer's climate transition strategy to shareholders' approval).
- ☐ If appropriate, the materiality of the planned transition trajectory in the context of the issuers overall business (including the relevant historical datapoints)?
- ☐ The alignment of the issuer's proposed strategy and targets with appropriate science-based targets and transition pathways that are deemed necessary to limit climate change to targeted levels?
- ☐ The comprehensiveness of the issuer's disclosure to help investors assess its performance holistically?

Overall comment on this section:

Section 3. Detailed review

1. USE OF PROCEEDS

Does the review assess:

- ☒ the environmental/social benefits of the project(s)?
- ☒ whether those benefits are quantifiable and meaningful?
- ☒ for social projects, whether the target population is properly identified?

Does the review assess if the issuer provides clear information on:

- ☐ the estimated proceeds allocation per project category (in case of multiple projects)?
- ☐ the estimated share of financing vs. re-financing (and the related lookback period)?

Overall comment on this section: The eligible categories for the use of proceeds – Renewable Energy, Clean Transportation, Green Buildings, Sustainable Marine Value Chains, Sustainable Marine Transport, Access to Essential Services (Healthcare), Access to Essential Services (Education), Affordable Housing and Affordable Basic Infrastructure (Water) – are aligned with those recognized by the Green Bond Principles and Social Bond Principles. Sustainalytics considers that investments in the eligible categories will lead to positive environmental or social impacts and advance the UN Sustainable Development Goals, specifically SDGs 3, 4, 6, 7, 9, 11 and 14.

2. PROCESS FOR PROJECT EVALUATION AND SELECTION

Does the review assess:

- ☒ whether the eligibility of the project(s) is aligned with official or market-based taxonomies or recognized international standards? Please specify which ones: *Sustainalytics has a proprietary taxonomy which is influenced by the EU taxonomy, Climate Bonds Initiative taxonomy as well as international standards.*
- ☒ whether the eligible projects are aligned with the overall sustainability strategy of the issuer and/or if the eligible projects are aligned with material ESG-related objectives in the issuer's industry?
- ☒ the process and governance to set the eligibility criteria including, if applicable, exclusion criteria?
- ☒ the processes by which the issuer identifies and manages perceived social and environmental risks associated with the relevant project(s)?
- ☒ any process in place to identify mitigants to known material risks of negative social and/or environmental impacts from the relevant project(s)?

Overall comment on this section: Nochu's Treasury and Forex division will be responsible for the process of evaluating and selecting eligible projects in line with the Framework's eligibility criteria. Nochu's Corporate Design division together with the front business units and the Treasury and Forex division, will provide the final approval for the selected eligible projects. Nochu's Environmental and Social Risk Management Framework are applicable to all allocation decisions made under the Framework. Sustainalytics considers Nochu's risk management systems to be adequate and the project evaluation and selection process to be in line with market practice.

3. MANAGEMENT OF PROCEEDS

Does the review assess:

- ☒ the issuer's policy for segregating or tracking the proceeds in an appropriate manner?
- ☒ the intended types of temporary investment instruments for unallocated proceeds?
- ☐ Whether an external auditor will verify the internal tracking of the proceeds and the allocation of the funds?

Overall comment on this section: Nochu's Treasury and Forex division will be responsible for tracking and managing the proceeds through an internal tracking system. Nochu intends to allocate proceeds within 24 months of issuance. Pending full allocation, unallocated proceeds will be held temporarily in the Bank's account or in cash or cash equivalents and may be invested in current funds which the Bank has confirmed will exclude financing carbon intensive assets or activities. This is in line with market practice.

4. REPORTING

Does the review assess:

- ☒ the expected type of allocation and impact reporting (bond-by-bond or on a portfolio basis)?
- ☒ the frequency and the means of disclosure?
- ☐ the disclosure of the methodology of the expected or achieved impact of the financed project(s)?

Overall comment on this section: Nochu commits to report on the allocation of proceeds in a sustainable bond report, which will be published on its website on an annual basis until full allocation. In addition, Nochu intends to report on the environmental or social impact of the use of proceeds using relevant impact metrics. Sustainalytics views Nochu's allocation and impact reporting as aligned with market practice.

Section 4. Additional Information

Useful links (e.g., to the external review provider's methodology or credentials, to the full review, to issuer's documentation, etc.)

Analysis of the contribution of the project(s) to the UN Sustainable Development Goals:

Additional assessment in relation to the issuer/bond framework/eligible project(s):

ABOUT ROLE(S) OF INDEPENDENT REVIEW PROVIDERS AS DEFINED BY THE GBP

- i. Second-Party Opinion: An institution with environmental expertise, that is independent from the issuer may issue a Second-Party Opinion. The institution should be independent from the issuer's adviser for its Green Bond framework, or appropriate procedures, such as information barriers, will have been implemented within the institution to ensure the independence of the Second-Party Opinion. It normally entails an assessment of the alignment with the Green Bond Principles. In particular, it can include an assessment of the issuer's overarching objectives, strategy, policy and/or processes relating to environmental sustainability, and an evaluation of the environmental features of the type of projects intended for the Use of Proceeds.
- ii. Verification: An issuer can obtain independent verification against a designated set of criteria, typically pertaining to business processes and/or environmental criteria. Verification may focus on alignment with internal or external standards or claims made by the issuer. Also, evaluation of the environmentally sustainable features of underlying assets may be termed verification and may reference external criteria. Assurance or attestation regarding an issuer's internal tracking method for use of proceeds, allocation of funds from Green Bond proceeds, statement of environmental impact or alignment of reporting with the GBP, may also be termed verification.
- iii. Certification: An issuer can have its Green Bond or associated Green Bond framework or Use of Proceeds certified against a recognized external green standard or label. A standard or label defines specific criteria, and alignment with such criteria is normally tested by qualified, accredited third parties, which may verify consistency with the certification criteria.
- iv. Green Bond Scoring/Rating: An issuer can have its Green Bond, associated Green Bond framework or a key feature such as Use of Proceeds evaluated or assessed by qualified third parties, such as specialized research providers or rating agencies, according to an established scoring/rating methodology. The output may include a focus on environmental performance data, the process relative to the GBP, or another benchmark, such as a 2-degree climate change scenario. Such scoring/rating is distinct from credit ratings, which may nonetheless reflect material environmental risks.

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