

ASSESSMENT

13 December 2023



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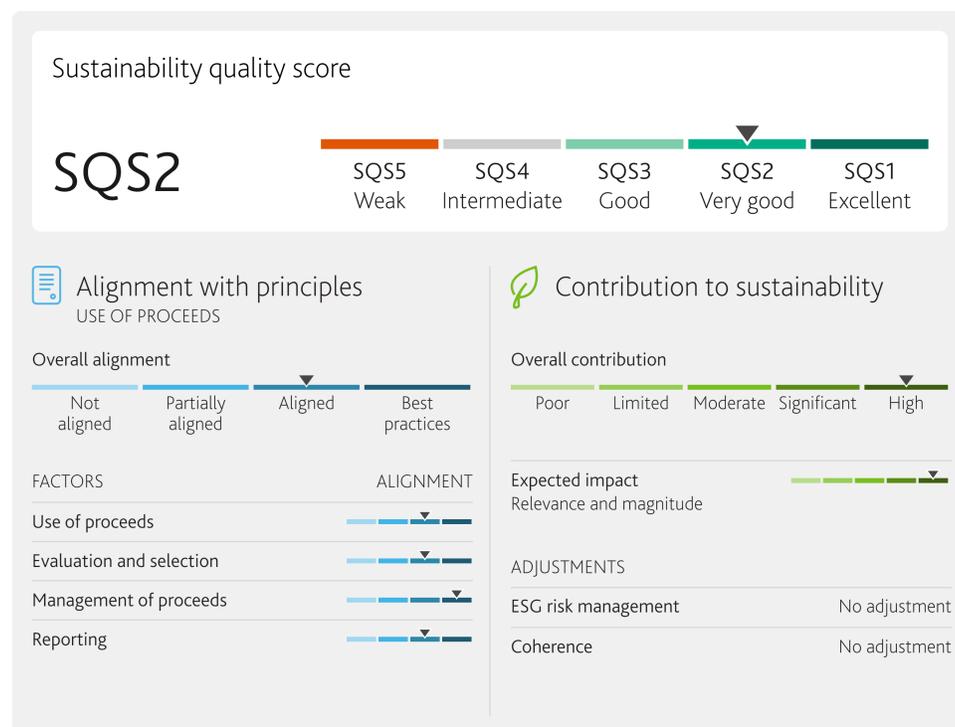
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Japan Finance Organization for Municipalities

Second Party Opinion – Green Bond Framework Assigned SQS2 Sustainability Quality Score

Summary

We have assigned an SQS2 sustainability quality score (very good) to Japan Finance Organization for Municipalities' (JFM) green bond framework dated December 2022. JFM has established its use-of-proceeds framework with the aim of financing a single eligible green project category: sustainable water and wastewater management. The framework is aligned with the four core components of the International Capital Market Association's (ICMA) Green Bond Principles 2021 (including June 2022 Appendix 1) and demonstrates a high contribution to sustainability.



Scope

We have provided a Second Party Opinion (SPO) on the sustainability credentials of JFM's green bond framework, including the framework's alignment with the ICMA's Green Bond Principles (GBP) 2021 (including June 2022, Appendix 1). Under its framework, the organization plans to issue use-of-proceeds green bonds to finance a single eligible green project category — sustainable water and wastewater management — as outlined in Appendix 2 of this report.

Our assessment is based on the latest version of JFM's framework dated December 2022 and the draft JFM Green Bond Impact Report 2023, and our opinion reflects our point-in-time assessment of the details in this version of the framework, the impact report, and other public and non-public information provided by the agency.

We produced this SPO based on our [Framework to Provide Second Party Opinions on Sustainable Debt](#), published in October 2022.

Recent developments

Following finalization of its green bond framework in December 2022, JFM issued its green bond in February 2023. Net proceeds from the EUR 500 million offering have been fully allocated to the sustainable water and wastewater management related projects, which is the single eligible green project category in the organization's framework (Appendix 2).

The organization intends to publish its JFM green bond impact report 2023 in December 2023, which covers all aspects originally anticipated under the organization's framework, including details on the specific projects - the amount of proceeds allocated at lending project level, as well as the sustainable benefits with relevant environmental reporting indicators. The company did not identify any material developments, issues or controversies related to the eligible category, and thus did not report on any of these items in its report.

As highlighted in the organization's impact report, 61% of the proceed was allocated to the installation, renewal, and reconstruction of pipes. The rest of the proceeds were allocated to other sewage related projects such as construction, renewal, and reconstruction of sewerage treatment plant, sludge treatment plant, pump station, as well as advanced treatment plant. The company has fulfilled all the commitments made in the framework and the details of the projects align with the assumptions in our original analysis. We are thus maintaining all assigned scores in this updated SPO.

Issuer profile

Japan Finance Organization for Municipalities (JFM) is a financial institution dedicated to providing long-term, low-cost funding to Japanese regional and local governments (RLGs). Established in 2008 based on the Japan Finance Organization for Municipalities Act¹, it is jointly owned by Japanese RLGs.

JFM has increased its lending to cover the RLGs' tax-supported activities since 2009, in addition to increasing its traditional lending to the RLGs' public enterprise funds that manage non-tax-supported, fee-based operations, such as water, sewage and mass transportation.

Sewage-related lending accounts for 28.5%² of the total outstanding loans and was the largest category as of the end of March 2023.

Strengths

- » Financing of sustainable water and wastewater management projects, which is likely to have a high contribution to sustainability
- » Comprehensive and transparent project evaluation and selection process, including robust environmental and social risk mitigation practices
- » Clearly defined and relevant environmental objectives associated with the eligible category
- » Granular reporting, which includes a list of financed projects and detailed impact metrics
- » Short allocation period of no more than 12 months

Challenges

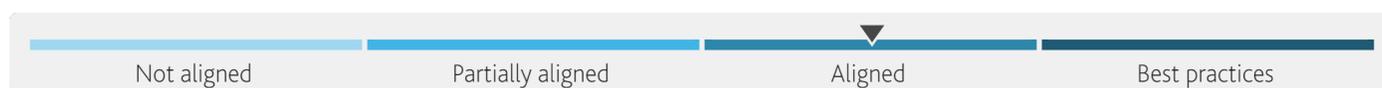
- » Reporting will only be conducted until full allocation of proceeds
- » There is no commitment to undertake verification or an independent review of the allocation, or impact reporting

Alignment with principles

JFM's green bond framework is aligned with the four core components of the ICMA's Green Bond Principles 2021 (including June 2022 Appendix 1).

- | | | |
|---|---|---|
| <input checked="" type="checkbox"/> Green Bond Principles (GBP) | <input type="checkbox"/> Social Bond Principles (SBP) | <input type="checkbox"/> Green Loan Principles (GLP) |
| <input type="checkbox"/> Social Loan Principles (SLP) | <input type="checkbox"/> Sustainability-Linked Bond Principles (SLBP) | <input type="checkbox"/> Sustainability Linked Loan Principles (SLLP) |

Use of proceeds



Clarity of the eligible categories – BEST PRACTICES

JFM has clearly and comprehensively communicated the nature of the spending, the eligibility and exclusion criteria for the financed projects, and the anticipated location of the projects. The organization plans to extend loans to municipalities to finance the sewage-related assets that comply with Japanese laws³, which set the detailed standards and requirements of sewage systems in Japan.

Clarity of the environmental or social objectives – BEST PRACTICES

JFM has clearly outlined the environmental objectives associated with the eligible category. These objectives include conservation of water resources and reduction of greenhouse gas emissions. The organization also referenced the UN Sustainable Development Goals (SDGs) as shown in Appendix 1 in articulating the objectives of the eligible category, and the objectives are coherent with the SDGs.

Clarity of expected benefits – ALIGNED

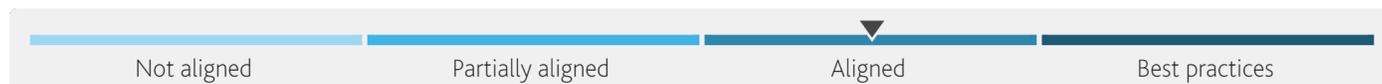
JFM has identified clear, relevant and measurable expected environmental benefits, which include pollution prevention and control, water resource conservation, recycling of sewage sludge and use of sewage sludge as an energy source. The organization plans to report on these quantitative benefits in its ongoing reporting.

The organization does not disclose the expected share of refinancing in its framework; however, it states that the lookback period is 36 months and the organization commits to report on the share of refinancing in its impact report.

Best practices identified - use of proceeds

- » Eligibility criteria are clearly defined for all project categories
- » Objectives set are defined, relevant and coherent for all project categories
- » Relevant benefits are identified for all project categories
- » Benefits are measurable and quantified for most projects, either ex-ante with clear baselines or with a commitment to do so in future reporting
- » Commitment to transparently communicate the associated lookback period(s) where feasible

Process for project evaluation and selection



Transparency and quality of process for defining eligible projects – ALIGNED

JFM has established a clear process for determining the eligibility of projects and disclosed the details in its public framework. In addition to following the standard loan screening procedure, which includes the loan department confirming that the borrower has fulfilled the requirements of Japanese laws related to the sewage projects, the Sustainability Working Group⁴ will be responsible for evaluating and selecting the projects to be financed by any specific green bond. In evaluating and selecting the projects, the working group will conduct surveys to understand the impact. The roles and responsibilities for project evaluation and selection are clearly disclosed and include relevant expertise.

The monitoring of continued compliance will be done through an on-site inspection. The process for evaluation, selection and monitoring is documented and internally traceable.

Environmental and social risk mitigation process – ALIGNED

The inclusion of the environmental and social risk mitigating process is required by Japanese sewage-related laws, and JFM will only extend loans to projects that fulfill this requirement and receive consent or approval from the relevant authorities. The breach of sewage laws, including those related to water quality standards, could lead to legal actions. Furthermore, JFM conducts surveys to ensure that the loans are exclusively used for the stated projects, and can request a full repayment if the results are unsatisfactory.

Best practices identified - process for project evaluation and selection

- » The roles and responsibilities for project evaluation and selection are clearly defined and include relevant expertise
- » The process for project evaluation and selection is traceable
- » Material environmental and social risks for most project categories are identified
- » Presence of corrective measures to address environmental and social risks across projects

Management of proceeds



Allocation and tracking of proceeds – BEST PRACTICES

JFM has defined a clear allocation and tracking process, which is disclosed in the framework. Net proceeds from any bonds issued under the framework will be placed in JFM's general treasury account and will be separately tracked under a formalized internal process to ensure that the proceeds are used for eligible projects only. The working group will ensure that the balance of the net proceeds will match allocations to eligible projects by extending loans that have longer maturities than the green bonds. In case the loans are redeemed, the organization commits to replace such projects.

Management of unallocated proceeds – BEST PRACTICES

Temporarily unallocated proceeds will be invested in JFM's liquidity portfolio as cash and cash equivalents. Based on the law⁵ that regulates JFM's investment policy and JFM's internal rule, the unallocated proceeds will not be invested in carbon-intensive or controversial activities.

Best practices identified - management of proceeds

- » Broad disclosure of a clearly articulated and comprehensive management of proceeds policy to external stakeholders; bondholders or lenders at a minimum
- » Short allocation period, for example typically less than 24 months
- » Disclosure on temporary placement and presence of exclusion criteria toward environmentally or socially harmful activities
- » Commitment to reallocate proceeds to projects that are compliant with the framework

Reporting



Transparency of reporting – ALIGNED

JFM will report annually on the allocation and impact of the bonds issued under its framework, and this reporting will be made publicly available on the organization's website. Reporting will occur until the full allocation of the funds and in the event of significant developments.

The reporting will be exhaustive, covering the amount of net proceeds, breakdown of projects, environmental reporting indicators that are clear and relevant such as water management capacity, and case studies. The methodologies and assumptions used to report on the environmental impacts will follow the relevant standards and guidelines stipulated by the Japanese sewage-related laws.

Best practices identified - reporting

- » Reporting covers material developments and issues related to the projects or assets
- » Reporting on allocation of proceeds and benefits done at least at eligible category level
- » Clear and relevant indicators to report on the expected environmental/social impact of all the projects, where feasible, or eligible categories
- » Disclosure of reporting methodology and calculation assumptions to bondholders or lenders at a minimum

Contribution to sustainability

The framework demonstrates a high expected contribution to sustainability.



Expected impact

The expected impact of the eligible projects on environmental objectives is high. A detailed assessment is provided below.

Sustainable water and wastewater management



The project exhibits significant relevance overall. The continued investments in sewage-related assets are very important to Japan's efforts to manage wastewater, especially because the country is prone to natural disasters. Typhoons and extreme rains could overwhelm the sewage systems and earthquakes could damage them, and therefore, the facilities need to be maintained well to minimize the impact of such natural disasters. In addition, the facilities need to be renewed or upgraded, or both, because these were mostly constructed in 1960-80. Furthermore, sewage treatment is an energy-intensive process, accounting for 35%⁶ of total greenhouse gas (GHG) emissions by the Metropolitan Government of Tokyo in 2020, for example. Therefore, use of sewage sludge as an energy source and recycling of sewage sludge are crucial to reducing GHG emissions. On the other hand, the sewage system in Japan is already well-established, with a penetration of 92.9%⁷ as of the end of March 2023.

The category is likely to have a high magnitude and a highly positive impact in terms of preventing water pollution. With very strict standards on water quality in Japan following the several water quality issues during the 1950s-70s, the funded sewage projects that follow the standards are likely to effectively minimize the water pollution. Furthermore, the use of sludge as an energy source would help reduce GHG emissions. It will play an important role in achieving net zero emissions under the Japanese government's plan to

decarbonize the sewage facilities⁸, and municipalities are likely to establish and follow plans to reduce GHG emissions based on the Act on Promotion of Global Warming Countermeasures⁹.

Overall, this category is highly likely to advance the environmental objectives of pollution prevention and control, water resource conservation, use of sewage sludge as an energy source and recycling of sewage sludge.

In addition, the category is likely to help Japan adapt to the impact of the climate change, though this is not explicitly included in the framework. The upgrade and maintenance of the sewage facilities are highly important because the expected change in the precipitation pattern, including the typhoons, could undermine the wastewater treatment capacity.

ESG risk management

We have not applied a negative adjustment for ESG risk management to the expected impact score. The sewage-related activities are regulated by Japan's sewage-related laws, and JFM will review necessary consent/approvals to prevent and minimize the relevant negative externalities.

Coherence

We have not applied a negative adjustment for coherence to the expected impact score. The project to be financed under JFM's framework aligns with its broader sustainability priorities because sewage-related lending was the largest loan category as of the end of March 2023.

Appendix 1 - Mapping eligible categories to the United Nations' Sustainable Development Goals

The eligible category included in JFM's framework is likely to contribute to six of the United Nations' Sustainable Development Goals (SDGs), namely:

UN SDG 17 Goals	Eligible Category	SDG Targets
GOAL 3: Good Health and Well-being	Sustainable Water and Wastewater Management	3.9: Substantially reduce the number of deaths and illnesses from hazardous chemicals and air, water and soil pollution
GOAL 6: Clean Water and Sanitation		6.3: Improve water quality by reducing pollution, eliminating dumping and minimizing hazardous chemicals and materials
GOAL 11: Sustainable Cities and Communities		11.5: Reduce deaths, people affected and economic losses caused by disasters, particularly for people in vulnerable situations
GOAL 13: Climate Action		13.1: Strengthen resilience and adaptive capacity to climate-related hazards and natural disasters in all countries
GOAL 14: Life Below Water		14.1: Prevent and significantly reduce marine pollution of all kinds, in particular from land-based activities
GOAL 15: Life on Land		15.1: Ensure the conservation and sustainable use of terrestrial and inland freshwater ecosystems and their services

The United Nations' Sustainable Development Goals (SDGs) mapping in this SPO consider the eligible project categories (or key performance indicators) and associated sustainability objectives/benefits documented in the issuer's financing framework, as well as resources and guidelines from public institutions, such as the ICMA SDG Mapping Guidance and the UN SDG targets and indicators.

Appendix 2 - Summary of eligible categories in JFM's framework and projects financed with proceeds from February 2023 Green Bond

Eligible Category	Description	Sustainable Objectives	Proceeds Allocation (Feb 2023 Green Bond)	Impact Reporting Metrics	Reported Impact
Sustainable water and wastewater management	Development, construction, maintenance, updates, operation of sewerage related assets, which comply with sewage drainage standards set by Japanese law including: <ul style="list-style-type: none"> - Sewerage Management-Related Facilities - Facility/Equipment - Pipes 	<ul style="list-style-type: none"> Pollution Prevention and Control Water Resource Conservation Energy use of sewage sludge, sewage sludge recycle 	EUR 500 million	<ul style="list-style-type: none"> - Population of the covered area - Water management capacity and water quality impact (where relevant) - Absolute amount of sludge treated and disposed of (where relevant) - Newly constructed pipe length and/or total pipe length (where relevant) - Other positive environmental impacts 	<ul style="list-style-type: none"> - Total population of treated area: 25,293,694 - Amount of electricity saved: 7,329,619 kWh - Total extension of pipes: 340.5 km - The volume of treated water: 2,999,187,751 m³

Endnotes

- 1 [The Japan Finance Organization for Municipalities Act](#)
- 2 [Annual Report 2023](#).
- 3 The laws are the Sewage Act, the Water Pollution Prevention Act and the Purification Tank Act.
- 4 The working group was renamed from the "Green Bond Working Group".
- 5 Article 45 of [Japan Finance Organization for Municipalities Law](#).
- 6 [Committee on reducing the GHG emissions from sewage system by half](#).
- 7 [The sewage system penetration as of the end of March 2023](#), accessed on 12 December 2023
- 8 [Report on contributing to the net-zero society](#), March 2022.
- 9 [Act on Promotion of Global Warming Countermeasures](#).

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REPORT NUMBER 1390524