Analysis on Green Bond Disclosures in Japan 2022

January 2023

KSI Kamakura Sustainability Institute.

Introduction

Kamakura Sustainability Institute (hereinafter referred to as KSI.) published "Analysis and Recommendations on Green Bond Disclosures in Japan[(1)]" in April 2022 (coverage: green bonds issued by domestic issuers between October 2014 and June 2021). As the green bond market is expanding globally, the number and amount of green bonds issued in Japan are also increasing[(2)]. In absence of clear eligibility standard for green bond, we examined the level of disclosure in accordance with international and national green bond guidelines as well as climate change mitigation goals. As a continuation of our previous research, we examined the green bonds issued from July 2021 to June 2022.

In the course of our research, the market outlook was worsened by global events such as Russia's invasion of Ukraine and the U.S. monetary tightening. Issuance of ESG bonds including green bonds drastically dropped during the first quarter of 2022. On the other hand, it is noteworthy that the relative ratio of ESG bonds issuance to conventional corporate bonds has been increasing. As sustainable finance gained more importance from a long-term perspective, "Sustainable Finance Disclosure Regulations" were implemented in Europe in March 2021. Effective January 2023, financial institutions are required to disclose more information including quantitative data. In the U.S., the Securities and Exchange Commission (SEC) is considering ESG disclosure standards for asset management companies.

In Japan, ministries such as the Ministry of Economy, Trade and Industry, the Ministry of the Environment, and the Financial Services Agency collaborated with financial institutions, market participants and experts to promote sustainable finance and to improve the market environment. In relation to green bonds, the Ministry of the Environment revised the Green Bond Guidelines in July 2022. Furthermore, the Japan Exchange Group (JPX) introduced ESG Bond Information Platform [(3)] in July 2022 to consolidate information regarding eligibility of ESG bonds as reference for market participants after a discussion in the Sustainable Finance Platform Development Working Group.

Against such backdrops, KSI. conducted the second round of research aiming to evaluate the domestic green bond disclosure, to accumulate quantitative data, and to present the overall perspective as well as the outstanding issues to a wide range of stakeholders.

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(1) Analysis and Recommendation on Green Bond Disclodure in Japan: https://kamakurasustainability.com/blog/2022/ksi-analysis
(2) First green bond was issued in Japan in 2014. The total amount of issue exceeded 1 trillion yen in 2020 and it recorded 1.865 trillion yen in 2021 (source: Green Finance Portal, Ministry of the Environment).
(3) ESG Bonds Information Platform: https://www.jpx-esg.jp

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Glossary

CBI	Climate Bonds Initiative
ESG	Environmental, Social, and Governance
ICMA	International Capital Market Association

Objective

While the green bond issuance in Japan is on the rise both in terms of the number and the amount, eligibility standards for green bond are still in the developing stage. Considering that, in this research, we aim to analyze the states of green bond disclosure in light of domestic and overseas green bond guidelines and globally adopted climate change mitigation goals.

Evaluation Criteria

Since this research is a continuation of our first issue, the same evaluation criteria are adopted. One exception is "Regular and Consistent Disclosure of Green Performance Indicators", which is evaluated in another report. In "1. Proceed Usage Towards Green Goals", a criterion for the conformance with the Paris goals has been changed from 2℃ to 1.5℃ goals as it's changed in the CBI Taxonomy September 2021 edition. A newly added criterion is whether the issuers' green bond framework provides explanations on how the proceeds usage fits into the issuers' overall sustainability/ ESG strategy(4).

Criteria	
1.Proceed Usage Toward Green Goals	Whether the projects/assets considered for use of the proceeds meet the CBI Taxonomy criteria, which are compatible with the scientific rationale for achieving the 1.5°C goal of the Paris Agreement. Whether the issuer explains in its green bond framework that the project/asset objectives are consistent with the issuer's overarching sustainability strategy/targets.
2.Incremental Environmental Impact of Refinancing	Regarding the projects/assets which proceeds are to be allocated for refinancing, whether issuers discloses the refinance ratio (amount) and look-back period necessary to assess an incremental environmental impact (environmental significance additionally generated) based on the environmental benefits of the projects/assets in their remaining lifetime.
3.Proper Disclosure of Risk Assessment Data	Whether issuers themselves disclose the results of the risk assessment and the management procedures of any negative environmental or social impacts associated with the relevant projects/assets.
4.Clearly Defined Data Disclosure Commitments	Whether issuers themselves disclose the framework and other information mentioned above (Criterion 1 through 3) essential in assessing the greenness of the green bond.
5.Publishing of Recurring External Reviews	Whether any external review is given, which plays an important role in enhancing the reliability of the information disclosed by the issuer.

Research Universe

Universe

- 115 bonds issued from July 2021 to June 2022, listed on the Green Finance Portal, the Ministry of the Environment (bonds issuance listed on the portal as of the end of June 2022)
- The same 262 bonds as in the previous research (bonds issued from October 2014 to June 2021) were used to conduct time series and other comparative analysis.

Information Source

- Issuers' websites and external review reports (second party opinions on green bond framework, pre-issuance green bond review, etc.)
- Data and information media such as financial information terminals were not used for the purpose of verifying whether the information is easily publicly accessible.

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(4) It is listed as one of the important recommendations in the Green Bond Guidelines 2022 (the Ministry of the Environment).
(5) Domestic issuance list on the Green Finance Portal:
https://greenfinanceportal.env.go.jp/bond/issuance_data/issuance_list.html

Data Attributes

Sector breakdown

Figure1. Sector breakdown by number of issues (n=115)

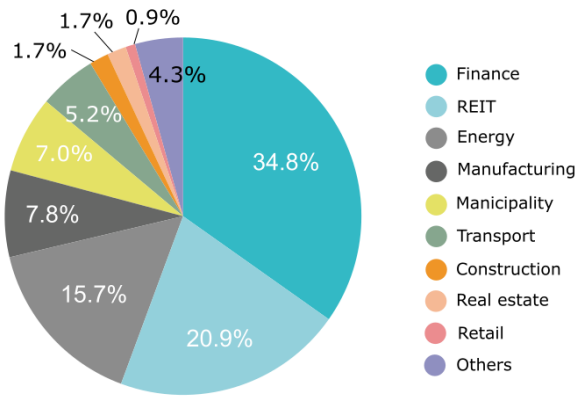
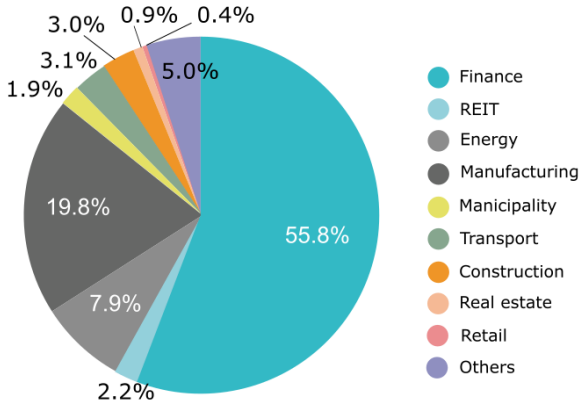
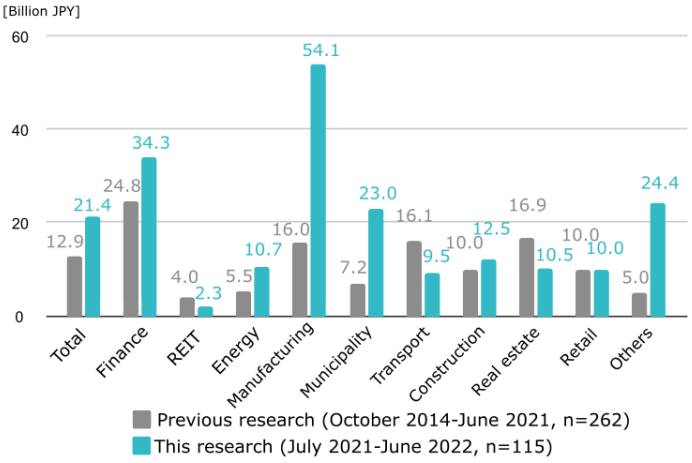


Figure2. Sector breakdown by amount (n=115)



- The average amount of issue was 21.4bn yen, an increase of approx. 66% from that of the previous research (research period of 8 years from October 2014 to June 2021) (Figure 3).
- Sector breakdown by number of issues looks similar to that of the last research, with the top three being Finance (34.8%), REIT (20.9%), and Energy (15.7%), representing more than 70% of the total. Financial sector accounts for more than 50% in terms of the issue amount.
- Manufacturing sector accounts for 7.8% of the number of issues and 19.8% in amount of issue (Figure 2). The average issue amount of the sector rose significantly, from 16bn in the previous research to 54.1bn. This is largely due to three issuances of 100bn-yen bonds by Honda Motor (Use of proceeds is mainly manufacturing of EV and FCV components).

Figure3. Average amount of issue

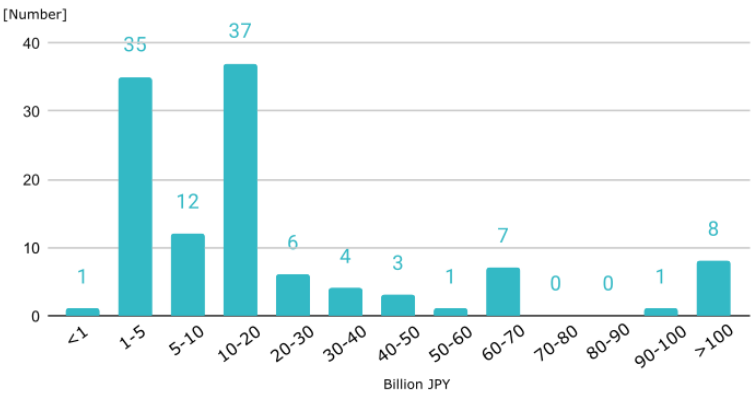


- Sectors with a remarkable increase in the average amount of issue are Manufacturing (+238%, from 16bn to 54.1bn yen), Municipalities (+219%, from 7.2bn to 23bn yen), Energy (+95%, from 5.5bn to 10.7bn yen), and Finance (+38%, from 24.8bn to 34.3bn yen). A significant increase in Manufacturing is attributed to the large-scale issuances by Honda Motor.

Amount per issue

- Issue amount of 1-5bn yen and 10-20bn yen each represents about 30%.
- In previous research, there was only one issue which exceeded 100bn yen (by Japan Housing Finance Agency). There are eight this time: five by financial sector and three by manufacturing sector including the large issue by Honda Motor issued for development of and manufacturing the EV and FCV vehicles components.

Figure4. Distribution of amount per issue



Currency

Figure5. Currency breakdown by number of issues (n=115)

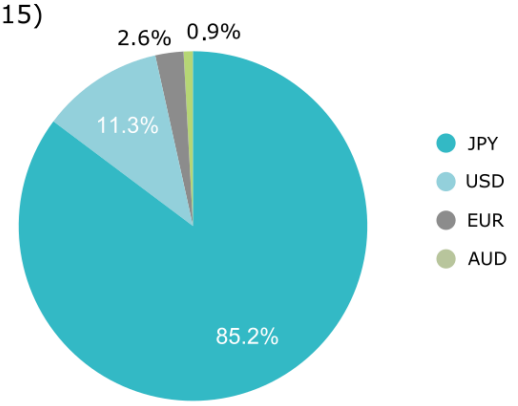
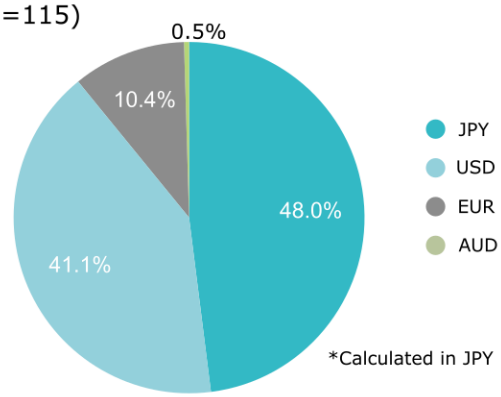
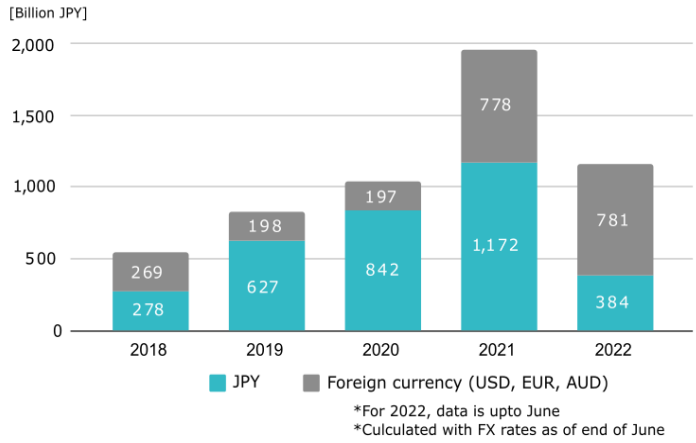


Figure6. Currency breakdown by amount (n=115)



- Out of the 115 bonds, 85.2% are Japanese yen denominated issuance, followed by US dollar at 11.3% and euro at 2.6%. While the number of issues in foreign currencies is small (Figure 5), the ratio by amount was 52% (USD at 41.1% and EUR at 10.4%) exceeding that of JPY (48.0%) (Figure 6).
- The Figure 7 shows the 5-year trend in currency denomination since 2018. During the first three years, JPY dominated among the issue currency in terms of the amount. However the ratio of foreign currency-denominated bond increased to nearly 40% in 2021. It further increased to 67% of total during the first half of 2022, exceeding its annual total in 2021 as well as JPY denomination for the first time.

Figure7. JPY v.s. foreign currency denominated bond volumes



Key Findings

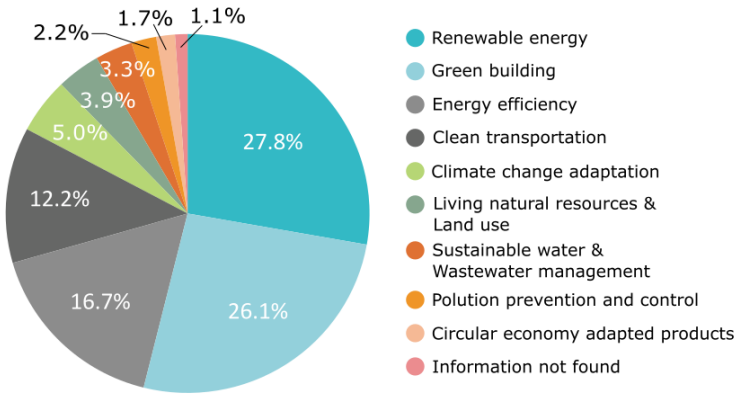
1. Proceed Usage Toward Green Goals

【Use of proceeds】

- ❑ Eligible green projects are categorized as per the ICMA Green Bond Principles.
- ❑ When a single green bond financed projects of multiple different categories, each category was counted individually (n=181).

- ‘Renewable energy’ and ‘Green building’ each accounted for more than a quarter, followed by ‘Energy efficiency’, ‘Clean transportation’ and ‘Climate change adaptation’. This overall picture has not changed since 2014 (see the Data Library at the end of this report).
- The number of issuances under ‘Living natural resources and land use’ category increased to seven in the matter of 1 year, compared to a cumulative total of three over the last 8 years; five are for the green space development by municipalities and the remaining two were projects related to certified forest by trading companies. It was our first time to see trading companies issue green bonds.
- As hydrogen drew attention as a clean energy, there were seven bonds issued for hydrogen related projects (power generation, production, supply facilities, etc.). This compares with just one over the previous 8 years.

Figure8. Breakdown of Use of Proceeds by number (n=181)

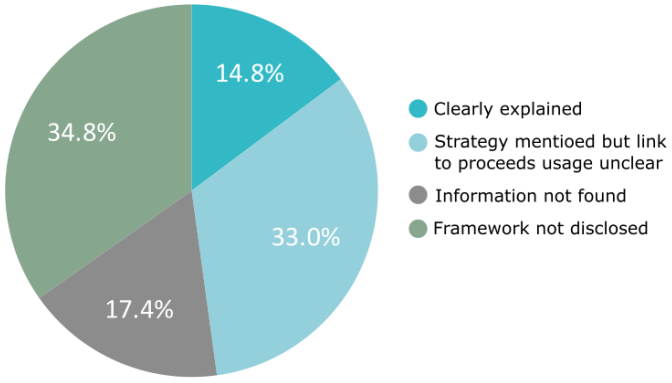


【Alignment with Issuers’ overall Sustainability/ESG Strategy】

- ❑ International guidelines such as ICMA Green Bond Principles and Climate Bonds Standard recommend issuers to explain how the project/ asset contribute to their overall sustainability policy and strategy.
- ❑ In this research, we examined whether issuers state their sustainability policy/ strategy in their green bond framework, and whether their eligibility criteria for the proceeds usage and green projects are consistent with their policy/ strategy.

- 14.8% of the total bonds explained their sustainability policy/ strategy and the consistency of proceeds usage and eligibility criteria with it in their green bond framework.
- 33% briefly mentioned their sustainability strategy, but it was unclear whether proceeds usage and eligibility criteria were consistent with the strategy.
- 17.4% did not present the issuers’ sustainability strategy in the framework. Furthermore, 34.8% of them did not report the framework itself. In other words, more than a half (or 52.2%) failed to disclose consistency with issuers’ policy/ strategy.

Figure9. Proceeds usage in issuer's sustainability strategy explained in framework (n=115)

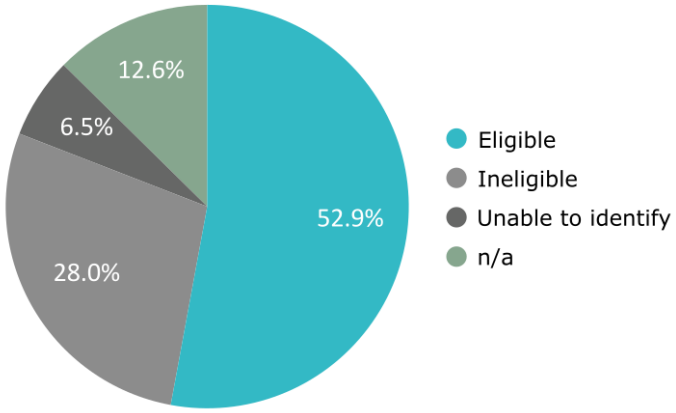


【Compatibility with CBI Taxonomy】

- ❏ As to proceed usage of each bond, we checked if it is aligned with the 1.5℃ goal based on the CBI Taxonomy (6) (Climate Bonds Taxonomy September 2021) by studying the project information publicly available.
- ❏ When proceeds of one bond were allocated to multiple categories of green projects, they were examined individually.
- ❏ In order to check against the Asset specifics of the CBI Taxonomy, projects/ assets were subdivided, resulting in a total of 293 samples.
- ❏ CBI Sector criteria are also referred for verifying the compatibility.

- 52.9% of the total projects/assets were found compatible with 1.5℃ goal based on the CBI Taxonomy versus 49.4% in the last research.
- As in the last research, there were notable number of cases where lack of disclosure made the verification impossible; 28% were found “unable to verify” (not enough information to verify the compatibility) and 6.5% were “unable to categorize” (not enough information to categorize projects/ assets based on the Taxonomy).

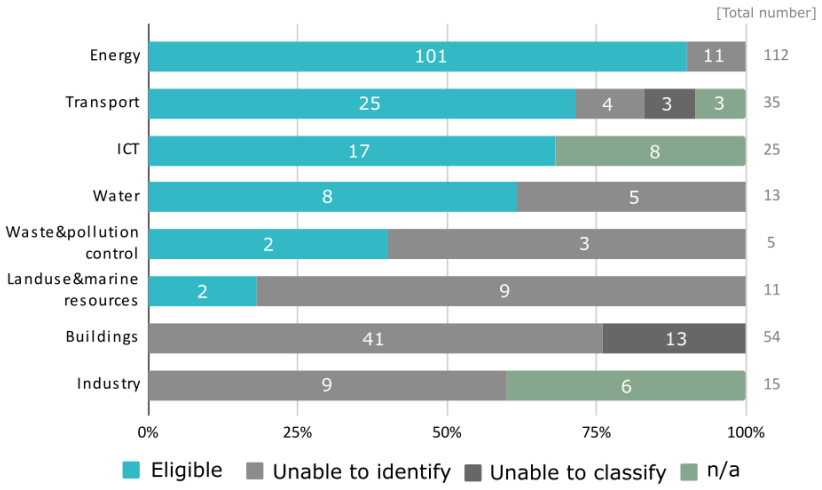
Figure10. Eligibility under CBI taxonomy (n=293)



【CBI Taxonomy compatibility：Asset Type】

- The figure below shows CBI Taxonomy compatibility by project category (categorized as per CBI Taxonomy Asset Type). Eligibility ratio is higher in Energy (90.2%) and Transport (71.4%).
- ICT, which has the 3rd highest eligibility ratio, appeared for the first time in our research. There was no green bonds issued for ICT projects in the past 8 years. Most of their projects were related to power deduction of consumption of communication network such as data centers and 5G/ optic fiber.
- For the Buildings, which is the second largest category, 75.9% of the projects/ assets fell into “unable to verify”. The relative carbon footprint performance in the local market is a criterion given in the CBI Taxonomy. However, no such data is disclosed in Japan nor is a legislation in place to compel the data disclosure.

Figure11. Eligibility under CBI taxonomy [by category]



(6) Climate Bonds Taxonomy January 2021, used as reference in the last research, set 2℃ goal as the taxonomy standard but it was changed to 1.5℃ in the Climate Bonds Taxonomy September 2021. At COP26, held in Glasgow in 2021, the consensus document included the phrase "pursuing efforts to limit the temperature increase to 1.5°C above pre-industrial levels".

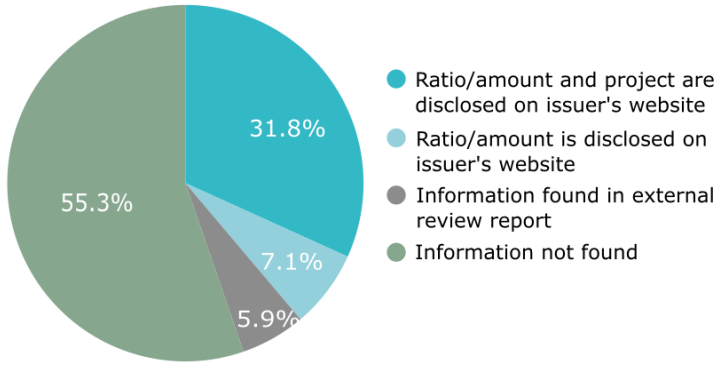
2. Incremental Environmental Impact of Refinancing

【Refinancing Ratio】

- ❑ Out of the total 115 bonds surveyed, 85 bonds for refinancing were surveyed to determine whether they disclosed the project/ asset to be refinanced, refinancing ratio/ amount, and the look-back period at the time of issuance.
- ❑ Bonds that disclose both the project/asset and the ratio/amount were treated separately from the bonds that disclose only the ratio/amount, which is a change from the last research.

- Only about 30% of the bonds disclosed both the project/asset and the ratio/amount on the issuer's websites. Guidelines recommends the issuers themselves disclose the information, but disclosure rate is less than 40% even combined with disclosure in external review reports (5.9%),.
- In some cases, issuers stated that the refinancing information would be given in the post-issuance annual report when the project and ratio were not determined at the time of issuance.

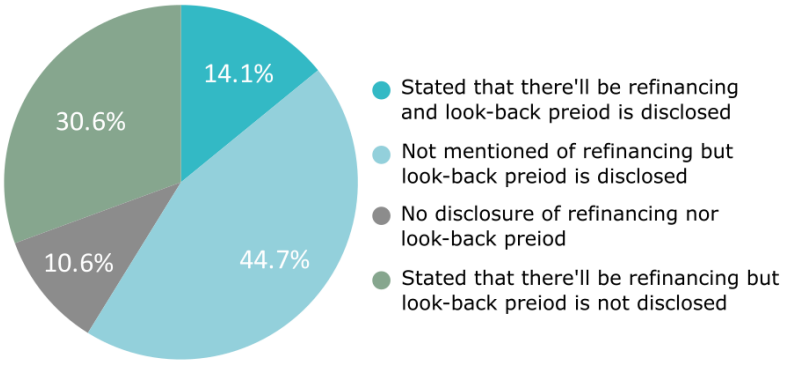
Figure12. Disclosure of refinancing (n=85)



【Look-back period】

- When refinancing, it is desirable to set and disclose a look-back period based on the remaining depreciable life of the project/asset. However, 30.6% of the reported refinancing did not state a look-back period and 10.6% did not disclose the fact of refinancing nor look-back period because refinancing was undetermined upon the bond issuance.

Figure13. Disclosure of look-back preiod (n=85)



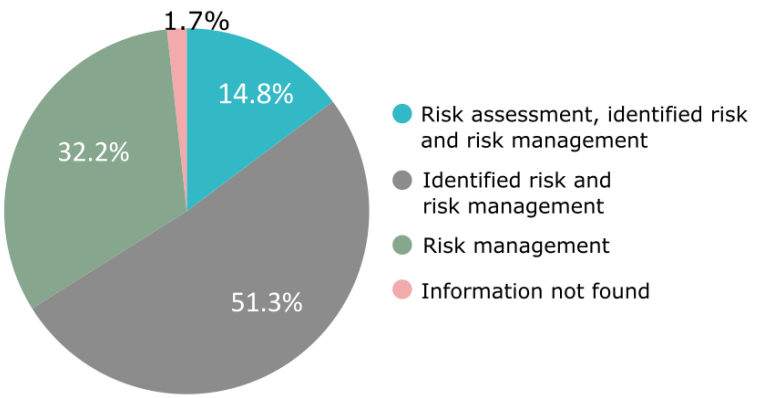
3. Proper Disclosure of Risk Assessment Data

【Disclosure of negative impact】

- ❑ With regards to the negative impacts associated with green projects/ assets, we checked whether the following three information were disclosed: risk assessment conducted, identified risks, and the risk management (mitigation) measures.

- Half of the bonds disclosed the identified risks and risk management measures. However, only 14.8% also reported risk assessment conducted (environmental due diligence, etc.)
- About 30% disclosed only the risk management measures and no risk assessment conducted nor identified risks.
- Two bonds (1.7%) disclosed no information regarding the negative impact (vis-à-vis 24% in the previous research) .

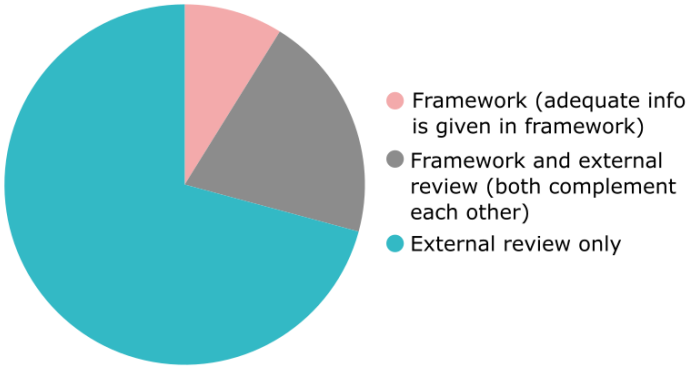
Figure14. Disclosure of negative impact (n=115)



【Method of Negative Impacts Disclosure】

- 70% of the bonds had the information on negative impacts disclosed only in the external review reports.
- Since the information on negative impacts is critical for investment decision making, it should be disclosed by the issuers themselves, not solely via external reviews.

Figure15. Method of negative impact disclosure (n=113)



4. Clearly Defined Data Disclosure Commitments

【Green bond framework disclosure on the issuer's websites】

- 65.2% of the bonds presented their green bond framework on their websites, 12.1% higher than the total of the past eight years combined (ref. the previous research).
- Since 2014, there has been an upward trend. This research covered only the first half of 2022, in which more than 70% had their framework disclosed on the issuers' websites.

Figure16. Disclosure of Green bond framework on issuers' websites (n=115)

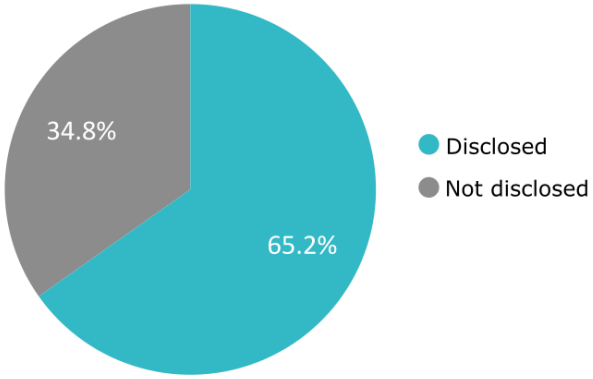
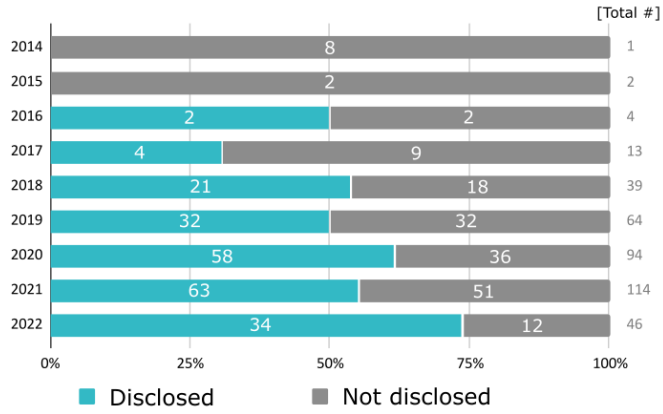


Figure17. Framework disclosure over the years



5. Publishing of Recurring External Reviews

【Pre-issuance external review】

- 73% of bonds had external green bond framework or/and bond review report disclosed on their websites. The percentage greatly exceeds that of the last research (53.1%).

Figure18. Disclosure of pre-issuance external reviews (n=115)

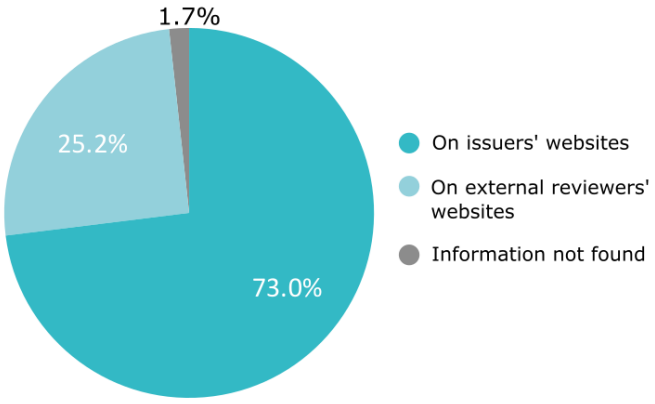
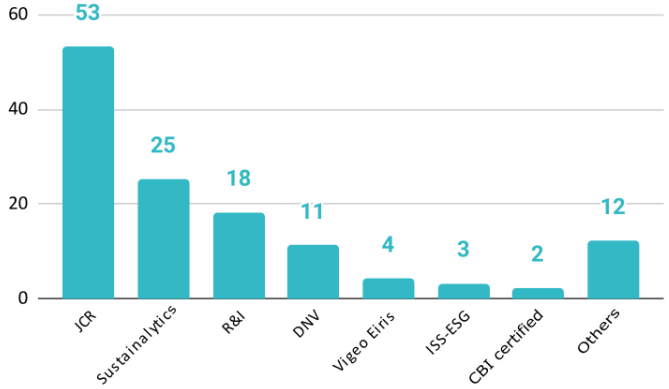


Figure19. Number of external reviews by provider



Conclusion

The previous research covered green bond issued over eight years since the first one was issued in Japan (between October 2014 and June 2021). As a continuation, this research was conducted to examine the bonds issued in recent single year (July 2021 to June 2022). In summarizing our analysis, we overview the data accumulated between October 2014 and June 2022.

Green bond market

The number of green bond issued in 2021 was 1.3 times more than in 2020. The total issue amount was 1.8 times bigger (source: Green Finance Portal, the Ministry of the Environment). Average issue amount of the bonds covered in this research was 21.4bn yen, a 66% increase from that of the previous research. Financial sector remains the largest in terms of both the number and the amount of issuance. Average issue amount significantly increased in manufacturing, energy, and municipality sectors in the past year. The issue amount of foreign currency denominated bonds exceeded that of yen denominated bonds, which is also indicative of future market trend.

Green use of proceeds

In this research, we added another criterion, alignment between the issuer's sustainability/ESG strategy and proceeds usage of their green bonds. It should be of great interest to investors how the issuer positions its company/organization's main businesses under a long-term sustainability strategy and whether the green projects contribute to them. The results show that less than 15% of the total bonds clearly explained the alignment of proceeds usage with the sustainability/ESG strategy whereas about 50% did not describe the strategy in the green bond framework or did not disclose the framework itself. As the green bond market grows, so do the concerns on greenwashing. More efforts should be made to explain how the green bond contributes to the issuer's green strategy.

In verifying the compatibility of proceeds usage with the CBI Taxonomy, we run into many cases where insufficient disclosure made such analysis impossible. Issuers are expected to include their transition plans towards the Paris goals in their disclosures. To that end, the role of regulatory authorities is also important. We look forward to more discussion toward the establishment of ESG bonds disclosure standards.

Refinancing

This research examined whether the refinance ratio/amount was disclosed along with the project to be refinanced as a part of pre-issuance information. The result shows that about 30% provided the information on issuers' websites. Nevertheless, the disclosure rate is lower than 40%, even including those cases where the information was given in the external review. In more than 50%, we could not find any information on refinancing. Furthermore, about 30% did not disclose look-back period in spite of the fact that they planned on refinancing.

Negative Impact

In the previous research, there was no information on negative impact that green project might have for 24% of the bonds studied. However, the ratio dropped to 1.7% this time. Furthermore, bonds that mention "identified risks and risk management method" was 36% of the total in the previous research. It increased to 51% this time, which means that more issuers give information on the identified risks. However, for the 70% of the bonds information on negtative impact is only found in external reviewers' reports and disclosure by issuers themselves remains limited.

Transparency and credibility

Increasing number of issuers have been reporting their green bond framework on their websites since 2014. In this research, the ratio reached 65%. However, the percentage is not sufficient yet and should ideally be 100%. Similarly, 73% had external review reports readily available on the issuers' websites. The structure to ensure independence and objectivity of the external reviewers is an important issue not only for green bonds but also sustainable finance as a whole. In December 2022, the Financial Services Agency announced the "Code of Conduct for ESG Evaluation and Data Providers". We hope that it will further enhance the integrity of ESG assessment and data providers.

Data Library

- The nine-year cumulative data from the first research (Oct 2014 to June 2021) and the second research (July 2021 to June 2022) are shown below.
- The data for research criterion newly added or changed is excluded.

Figure20. Use of Proceeds by number (n=523)

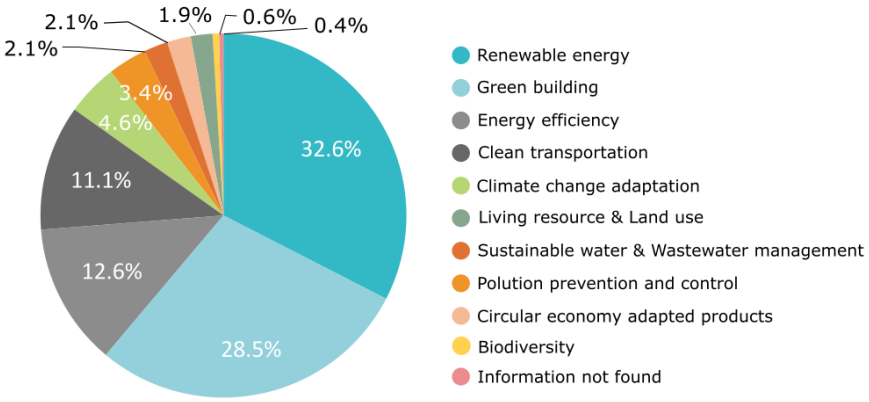


Figure21. Eligibility under CBI taxonomy (n=697)

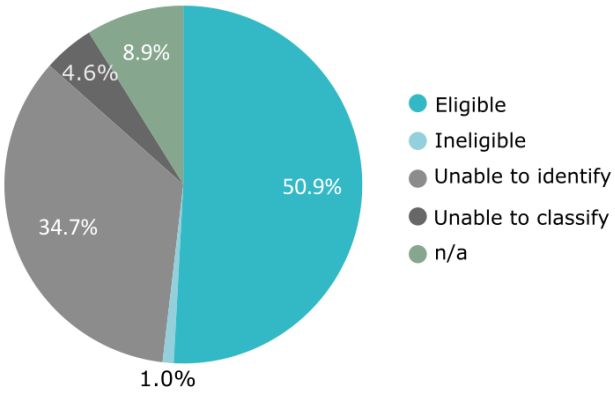


Figure22. Eligibility under CBI taxonomy [by category]

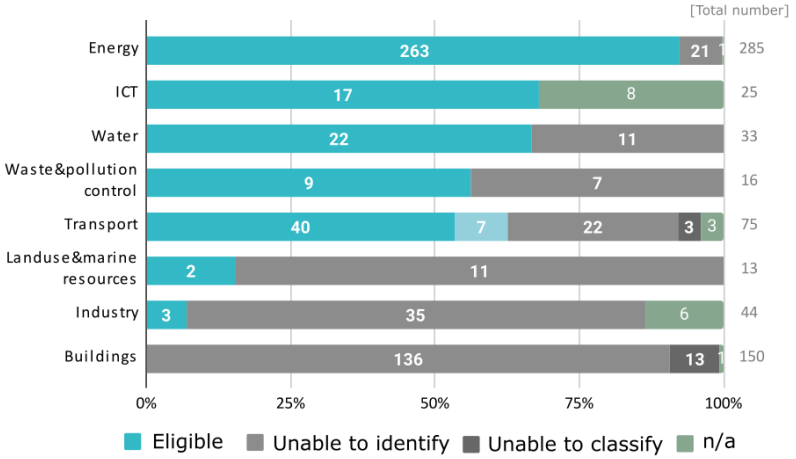


Figure23. Disclosure level of negative impact (n=377)

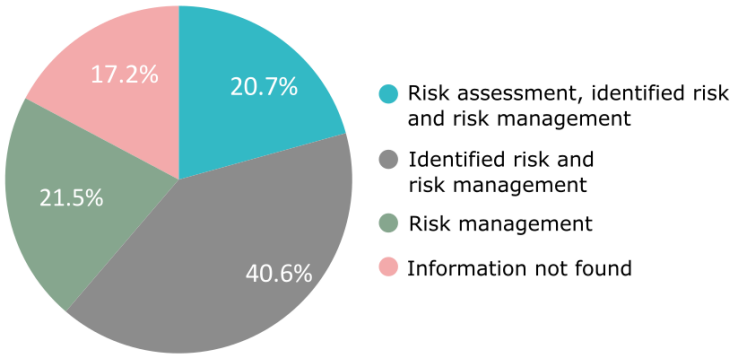


Figure24. Method of negative impact disclosure (n=312)

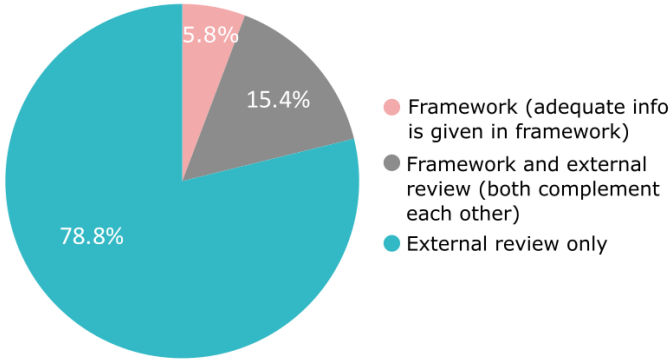


Figure25. Disclosure level and method of negative impact (n=312)

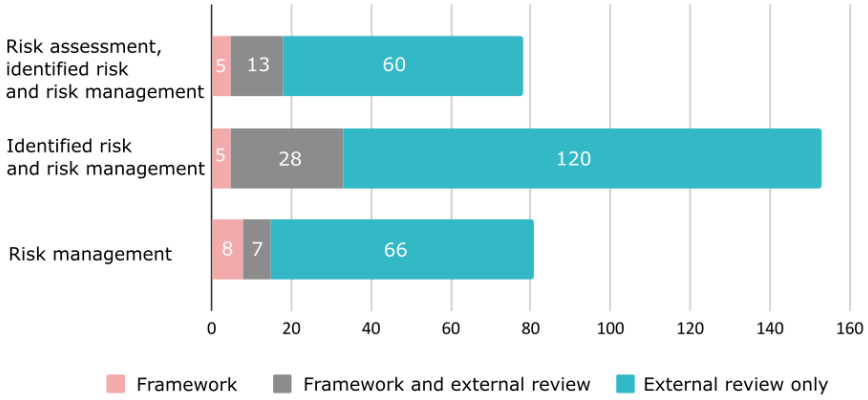


Figure26. Disclosure of Green bond framework on issuers' websites (n=377)

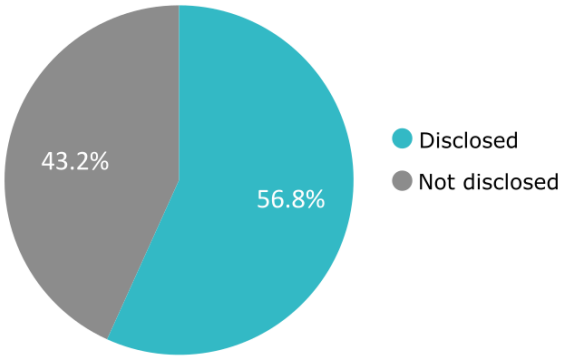


Figure27. Disclosure of pre-issuance external reviews (n=377)

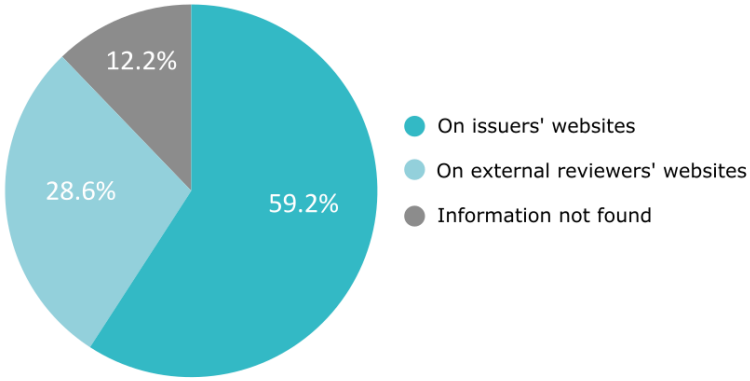
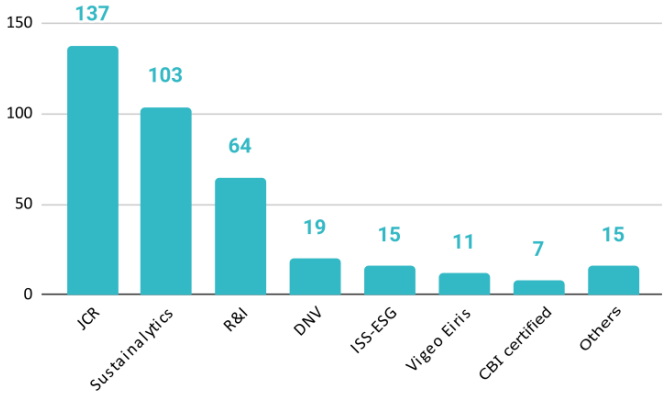


Figure28. Number of external reviews by provider



About Kamakura Sustainability Institute (KSI.)

KSI. is a no-profit organization established in Kamakura, Japan in 2017 with the aim of developing sustainability specialists who care about the earth, people, and the future and contribute to the development of responsible businesses. KSI.'s work includes training courses, seminars, research, and career support in the field of sustainability. KSI. is supported by various professionals in the financial industry and beyond.

Director Ai Aonuma
5-15-12 Zaimokuza, Kamakura, Kanagawa 248-0013, Japan
info@kamakurasustainability.com

Analysis on Green Bond Disclosures in Japan 2022
January 2023
Author Sachi Nakajima, Miharu Sato

KSI Kamakura Sustainability Institute.

kamakurasustainability.com