環境省
Ministry of the Environment

Green Bond and Sustainability Linked Bond Guidelines

Green Loan and Sustainability Linked Loan Guidelines

2022

Green Bond and Sustainability-Linked Bond Guidelines 2022

Green Loan and Sustainability-Linked Loan Guidelines 2022

Established in March 2017
Revised in March 2020
Revised in July 2022
Ministry of the Environment, Japan

Foreword for the Green Bond and Sustainability-Linked Bond Guidelines 2022 and the Green Loan and Sustainability-Linked Loan Guidelines 2022

More than two years have passed since revision of the Green Bond Guidelines 2020 and the formulation of the Green Loan and Sustainability-Linked Loan Guidelines 2020. Since then, and despite the COVID-19 pandemic, the world has seen a strong push to promote commitments to decarbonization toward achieving the goals of the Paris Agreement. Against the backdrop of these major global trends, the green finance market, including the Green Bond market, has continued to expand both domestically and internationally.

Furthermore, Russian invasion of Ukraine has caused a spike in the international prices of crude oil, raw materials, grains, and other commodities, and concerns over the supply of scarce materials have persisted. The importance of energy security from the perspective of maintaining our livelihoods and economic activities has accordingly been reaffirmed. Meanwhile, from this same perspective, Japan must further accelerate its efforts to transition to a decarbonized society, including comprehensive energy conservation and the promotion of autonomous and decentralized renewable energy.

With over 150 trillion yen of domestic investment reportedly needed over the next ten years to transform Japan's economy, society, and industrial structure toward decarbonization, the mobilization of public and private investment is essential. Furthermore, Green Bonds and other forms of green finance are expected to play an increasingly significant role. At the same time, internationally, issues related to natural capital and the circular economy have been indicated to be closely related to decarbonization. Domestically, we have seen an increasingly strong awareness of the problems arising in local communities from the rapid expansion of solar power generation, such as causing landslides or disturbing cultural landscapes. Accordingly, it has become all the more important to take a holistic view of various environmental and social impacts, including both positive and negative ones.

In light of these circumstances, the revision and formulation of the Guidelines was undertaken in 2022 in accordance with discussions on the Guidelines to date. Deliberations were conducted on how to realize an appropriate expansion of the green finance market in Japan, taking into consideration consistency with international principles such as the Green Bond Principles (GBP).

Specifically, in the main text of the Green Bond Guidelines, the Green Bond Framework and conducting of external reviews have been positioned as key recommendations for issuers in the context of promoting explanations to market participants by those seeking financing (issuers and borrowers). Explanations to market participants regarding the identification, mitigation, and management of negative impacts associated with a project have also been recommended. In the Annex, in order to improve the usefulness

of the Guidelines for a wider range of those seeking financing, we have clarified points for determining the so-called “greenness” of Green Projects, and compiled a list of uses for proceeds in Japan, key performance indicators (KPI), and examples of negative impacts, making significant additions to the content. Furthermore, the Guidelines have positioned the relationship with climate transition finance, which is already in practice in Japan, in a manner consistent with the “Basic Guidelines for Climate Transition Finance”. Moreover, the Sustainability-Linked Bond Guidelines have been newly formulated for Sustainability-Linked Bonds, which are expected to expand significantly in Japan going forward.

In addition, the discussions of the Green Finance Committee in 2022 also focused on various issues. These included how discussions and situations taking place both domestically and internationally should be reflected in guidelines for the domestic market in Japan in a flexible manner, as well as how long the domestic guidelines will be needed in the first place, in light of the expansion of the domestic green finance market and the acceleration of the international debate on sustainable finance.

In formulating and revising the Guidelines in 2022, examples of specific responses in financing in Japan, taking into consideration consistency with international principles and adding interpretations in line with domestic conditions, are provided in the main text of the Guidelines. The Guidelines also include an “Annex,” which provides specific examples adapted to domestic characteristics. The content of the examples in the Annex was expanded considerably in 2022. Going forward, while continuing to specify the relationship between these Guidelines and international principles, we will continue to examine mechanisms to expand the domestic market by appropriately reflecting domestic and international knowledge and past issuance records in a timely manner, especially with regard to the Annex.

In order to fully promote a substantial expansion of public and private investment aimed at the structural transformation of our economy and society toward decarbonization and the realization of a sustainable economy and society, it is important for all market participants, including those seeking financing, investors/financial institutions, intermediaries, and service providers, to seek to visualize and maximize the positive impacts arising from investments. We strongly hope that the Guidelines herein will contribute to the creation of a sustainable economy and society by promoting the full performance of market functions, together with various other guidelines and measures established by the government.

Revision of the Green Bond Guidelines 2022 and the Green Loan and Sustainability-Linked Loan Guidelines 2022 (Formulation of Sustainability-Linked Bond Guidelines 2022)

The “Green Finance Committee” met four times between December 2021 and June 2022. The content of the Guidelines was discussed by experts and practitioners in the field of Green Bonds, etc., based on the revision of international principles by ICMA and other organizations, as well as market and domestic policy trends.

In February 2022, an “Opinion Exchange Meeting of the Green Finance Committee” was held to exchange opinions on the content of the Guidelines among the committee members and market participants with knowledge in various fields. A wide range of opinions were exchanged, including those of operating companies (issuers) and data vendors, in addition to those of banks, securities companies, and consultants/external reviewers.

In addition, public comment on the Guidelines was called for from April 22 to May 20, 2022, to solicit a wide range of opinions on the content of these Guidelines. We also asked relevant international organizations for their opinions on the content of the Guidelines. These opinions were considered by the study group and reflected in the discussions of the study group as necessary.

Based on these discussions, the Ministry of the Environment, Japan (MOE) formulated these Guidelines.

Foreword for the Green Bond Guidelines 2020 and Green Loan and Sustainability Linked Loan Guidelines 2020

Approximately three years has passed since the publication of the "Green Bond Guidelines 2017" in 2017, and the total amount of issuance in Japan's Green Bond market has greatly expanded since their inception, reaching approximately 820 billion yen in 2019.

In the meantime, however, the environmental problems surrounding us are becoming increasingly serious. In Japan, flooding and landslides have been frequent occurrences in various parts of the country due to heavy rains and other events, causing significant damage. Concerns have arisen over the increasing frequency and extremity of water-related disasters caused by increased rainfall and rising sea levels accompanying climate change. Severe marine pollution from plastic waste has also become apparent. Australia is experiencing large-scale and devastating forest fires due to climate change. The top five global risks likely to occur in the next decade, as identified in the Global Risk Report 2020 prepared by the World Economic Forum, were all environmental issues: extreme weather, failure of climate action on mitigation and adaptation, large-scale natural disasters, large-scale biodiversity loss and ecosystem collapse, and human-made environmental disasters.

The global situation surrounding sustainable finance is undergoing major changes amid the materialization of risks and increased awareness of crises associated with climate change and planetary boundaries. Above and beyond increasing ESG investments and issuance of Green Bonds globally, there has been an accelerating trend toward climate-related financial disclosures since the delivery of the final recommendations of the Task Force on Climate-related Financial Disclosures (TCFD). In addition, the Network for Greening the Financial System (NGFS) has begun to work on climate change risks, and interest in climate change risks is increasing among central banks and supervisory authorities. In the EU, policy implementation is progressing based on the Sustainable Finance Action Plan (SFAP), including the development of the EU Green Bond Standard and EU Taxonomy. Developments surrounding transition finance have also begun. In addition, Positive Impact Finance, which generates positive environmental and social impacts, is being promoted for the creation of a sustainable society and economy.

Amid the progress on these various measures, attention is increasingly on Green Bonds as they can have a clear positive impact on the environment by supporting companies that are making credible green investment proposals. In the Sustainable and Responsible Investment Guide for Central Banks' Portfolio Management (released by NGFS in October 2019), Green Bond investments were cited as the most commonly-known responsible investment strategy by central banks. The Bank for International Settlements (BIS) launched its Green Bond fund initiative and established the Green Bond Fund for central banks in September 2019. ICMA has also revised its Green Bond Principles as appropriate and published a supplementary Guidance Handbook.

The publication of the Green Loan Principles (GLP) in 2018 has also raised interest in Green Loans. Green Loans are loans received for financing projects with environmental benefits, and by aligning the basic framework with Green Bonds, seamless financing for Green Projects is expected to become more active. Furthermore, the Sustainability-Linked Loan Principles (SLLP) were released in 2019, and the number of Sustainability-Linked Loans is on the increase. Considering that the ratio of indirect financing is high in Japan and that financial institutions are the ones working directly with and providing funds to local SMEs, Green Loans and Sustainability-Linked Loans have a major role to play in the creation of a sustainable

society that has realized the SDGs.

These Guidelines have been revised and formulated in light of the above developments, including the revision of the Green Bond Principles (GBP) and the publication of the Guidance Handbook. For this revision and formulation, consistency with the Green Bond Principles, Green Loan Principles, and Sustainability-Linked Loan Principles has been taken into consideration, and content has been aligned with international trends. In addition, the concept of Sustainability Bonds has been explained, and examples based on issuances in Japan have been expanded.

As noted above, the crisis associated with climate change and planetary boundaries requires immediate action. For the transition to a decarbonized society and the realization of a sustainable society that embodies the SDGs, it is absolutely necessary for market participants, including issuers and borrowers, investors and financial institutions, intermediaries, and service providers, to mainstream the consideration of ESG factors. We strongly expect Japan to make further progress in ESG finance initiatives in all asset classes, not limited to Green Bonds, Green Loans and Sustainability-Linked Loans, and for Japan to truly become a major power in ESG finance.

Foreword for the Green Bond Guidelines 2017

Currently, the world faces a variety of environmental issues that could threaten the survival of the human species and the sustainability of economic activities. According to the Fifth Assessment Report (AR5) of the Intergovernmental Panel on Climate Change (IPCC) published over the course of 2013 and 2014, there is no room for doubt on the progress of global warming, and extensive, serious risks are expected to affect human society due to temperature rise and the concomitant negative impacts on the availability of food and water and extreme weather events. All human activities are based on a favorable global environment, and economic activities, including finance, are no exception. On the other hand, economic activities involve risks that could damage the favorable global environment, such as CO2 emissions.

In light of this situation, the Paris Agreement, the first legally binding consensus on climate change in the 18 years since the Kyoto Protocol, was adopted at COP21 on December 12, 2015, in Paris, France. As an international agreement, the Paris Agreement brought all nations together for a common cause, for the first time aiming to undertake ambitious efforts to combat climate change by setting targets to hold the increase in global average temperature to well below 2°C above pre-industrial levels, and to pursue efforts to limit the temperature increase to 1.5°C above pre-industrial levels. It also aimed to make finance flows consistent with a pathway towards low greenhouse gas emissions and climate-resilient development.

Since a favorable global environment connotes limited resources, these must not be exhausted by the current generation. We have a responsibility to pass on the favorable global environment, on which prosperity on par with current levels can be built, to future generations. The 2°C target of the Paris Agreement embodies our efforts to fulfill this responsibility.

However, achievement of the 2°C target will require substantial capital. According to estimates by the International Energy Agency (IEA), additional investments of US$9 trillion are required from 2016 to 2050 to decarbonize the power sector as part of the effort to achieve the 2°C target. Moreover, in order to achieve energy efficiency targets in the building, manufacturing, and transportation sectors during the period from 2016 to 2050, additional investments of US$3 trillion are required. Financing all these investment needs with public funds is not realistic, however. A more efficient way of securing capital is to

draw on market dynamics, and introducing private funds is essential. Therefore, charting a pathway for domestic and overseas private funds, including Japan's household financial assets of over 1,700 trillion yen, to flow into such investment opportunities is critical.

Finance is the lifeblood of the economy and wields great influence over the direction of the economy and society. As such, the basic responsibility of financial market participants is expected to be contributions to the maintenance of the favorable global environment by creating such financial flows.

Furthermore, the funds in the financial market are originally those directly or indirectly entrusted to market participants by a wide range of citizens. Therefore, the essential role of fiduciaries is not only executing their legal fiduciary duty, but also using funds for the creation of a safe and secure future society for citizens. Moreover, with the finite nature of the global environment becoming ever more a reality, protecting the favorable global environment is equivalent to protecting the foundation of economic activities, and has medium and long-term implications for the survival of finance itself.

Along with global decarbonization efforts, the technologies, products, and services required for decarbonization are expected to create a variety of business opportunities. Therefore, accommodating investment demand in markets expected to grow is important for financial market participants.

Green Bonds are bonds for which proceeds are invested exclusively in projects that offer environmental benefits (Green Projects). The bonds explicitly create a flow of funds toward Green Projects by combining the efforts of issuers and investors and are expected to become one of the pathways by which financial market participants can fulfill their basic responsibilities for the maintenance of the favorable global environment, while at the same time pursuing investment opportunities. In fact, since the release of the Green Bond Principles (GBP) in 2014, Green Bond issuances and investments have increased significantly, mainly overseas. While paying our highest respect to people who have developed and supported the Green Bond market, we voice our expectation that a broad range of financial market participants will continue to actively promote the issuance of and investment in Green Bonds looking ahead to the future.

In addition, Green Bonds may help to attract people who have not been interested in investments in conventional bonds. For example, if a local government or a local company issues a Green Bond for a Green Project in the local community, it may create a new flow of funds that circulate within the community. Investing local funds in projects to protect a community's favorable natural environment has the potential to contribute to regional revitalization through creating employment in renewable energy projects, the maintenance and development of tourism projects, and the creation of disaster-resilient communities.

These Green Bond Guidelines were created in an aim to enhance the visibility of Green Bonds and expand Green Bond issuance and investment within Japan in line with the global development of the Green Bond market. When developing the Guidelines, we considered consistency with the Green Bond Principles, which are widely accepted around the world. It is expected that a broad range of market participants will issue and invest in Green Bonds under these Guidelines, leading to private funds being appropriately invested in projects that contribute to the conservation of the global environment. We sincerely hope that such efforts will ensure that consideration for the environment is embedded in every decision-making process, not only related to bonds but to all financial activities, so that a sustainable society is achieved through market mechanisms.

Background to the Development of the Guidelines

Formulation of the Green Bond Guidelines 2017

From October 2016 to March 2017, the Green Bond Review Committee (hereinafter referred to as the "First Review Committee") met four times, where scholars and practitioners in Green Bonds discussed the details of the Guidelines based on the following three basic approaches:

(i) Due consideration should be given to consistency with the Green Bond Principles, which are widely accepted around the world;

(ii) The Guidelines should reflect the immature market situation in Japan, where Green Bond issuance and investment have not been actively implemented (including lowering costs and the clerical workload);

(iii) In an effort to ensure the safety of investments in Green Bonds by domestic and overseas investors, the Guidelines should prevent "green-wash" bonds (bonds labelled as "green" despite the fact that they have no environmental benefits, or that their proceeds have not been appropriately allocated to Green Projects) from being issued and invested in.

In December 2016, a meeting for opinion exchange on Green Bonds was held with the First Review Committee members and European and American financial market participants well-versed in the Green Bond Principles to exchange views on the Guidelines.

In February 2017, the Third-Party Committee on Green Bond Guidelines (provisional name) met to allow for an examination of the Guidelines by independent third parties who had no direct stake in the Guidelines.

From Thursday, January 26 to Tuesday, February 14, 2017, public comments regarding the Guidelines were invited. These were later reviewed and discussed (as appropriate) by the First Review Committee.

Based on these discussions, the Guidelines were developed by the Ministry of the Environment, Japan.

Revision of Green Bond Guidelines 2020 and Formulation of Green Loan and Sustainability Linked Loan Guidelines 2020

The "Review Committee on Green Bonds" (hereinafter referred to as the "Second Review Committee") was held three times between July 2019 and February 2020. Academics and practitioners related to Green Bonds discussed the content of the Guidelines among other related matters while taking into account three basic concepts adopted at the First Review Committee.

In August 2019, a Green Bond Dialogue was held to exchange views on the content of the Guidelines and other related issues between the members of the Review Committee and market participants with expertise on the Green Bond Principles, the Green Loan Principles, and the Sustainability-Linked Loan Principles.

Public comments were accepted between Thursday, December 12, 2019, and Friday, January 10, 2020, and called for a wide range of opinions on the content of the Guidelines. In addition, opinions were also sought from relevant overseas organizations regarding the contents of these guidelines. These opinions were reviewed at the Review Committee and were reflected in the discussions of the Review Board as appropriate.

Based on these discussions, the Guidelines were developed by the Ministry of the Environment, Japan of Japan. Meetings of the Green Bonds Review Committee (hereinafter referred to as the "Second Review Committee") were held three times between July 2019 and February 2020. Academics and practitioners related to Green Bonds discussed the content of the Guidelines among other related matters, while taking into account the three basic approaches adopted by the First Review Committee.

In August 2019, a Green Bond Dialogue was held to exchange views on the content of the Guidelines and other related issues between the members of the Second Review Committee and market participants with expertise on the Green Bond Principles, the Green Loan Principles, and the Sustainability-Linked Loan Principles.

Public comments were accepted between Thursday, December 12, 2019, and Friday, January 10, 2020,

and called for a wide range of opinions on the content of the Guidelines. In addition, opinions were also sought from relevant overseas organizations regarding the content of the Guidelines. These opinions were reviewed by the Second Review Committee and reflected in the discussions of the Committee as appropriate.

Based on these discussions, the Guidelines were developed by the Ministry of the Environment, Japan of Japan.

The “Green Finance Committee” met four times between December 2021 and June 2022. The contents of the Guidelines were discussed by experts and practitioners in the field of Green Bonds, etc., based on the revision of international principles by ICMA and other organizations, as well as market and domestic policy trends.

In February 2022, an “Opinion Exchange Meeting of the Green Finance Committee” was held to exchange opinions on the contents of the Guidelines among the committee members and market participants with knowledge in various fields. A wide range of opinions were exchanged, including those of operating companies (issuers) and data vendors, in addition to those of banks, securities companies, and consultants/external reviewers.

In addition, public comment on the Guidelines was called for from April 22 to May 20, 2022, to solicit a wide range of opinions on the contents of these Guidelines. We also asked relevant international organizations for their opinions on the content of the Guidelines. These opinions were considered by the study group and reflected in the discussions of the study group as necessary.

Based on these discussions, the Ministry of the Environment, Japan (MOE) formulated these Guidelines.

List of Members of the Green Finance Committee in 2022

Chairperson	Takeshi Mizuguchi	Professor, Faculty of Economics, Takasaki University of Economics
Committee member	Kazuyuki Aihara	Senior Officer, Head of ESG products, Debt Capital Market Department, Nomura Securities Co., Ltd.
Committee member	Eiichiro Adachi	Senior Counselor, The Japan Research Institute, Limited
Committee member	Takahiro Ueno	Senior Researcher and R&D Manager (Sustainability), Socio-Economic Research Center, Central Research Institute of Electric Power Industry）
Committee member	Shunsuke Oshida	Managing Director, Head of Credit Research, Japan,. Manulife Investment Management (Japan) Limited
Committee member	Atsuko Kajiwara	Executive Officer, Head of Sustainable Finance Evaluation Department, Japan Credit Rating Agency
Committee member	Tadahiro Kaneko	Senior Deputy Head, Sustainability Division · Sumitomo Mitsui Banking Corporation
Committee member	Arisa Kishigami	Board member, Japan Sustainable Investment Forum (JSIF) Specialist, Sustainable Investment, Chonos Sustainability Ltd.
Committee member	Yoshio Shima	Professor, Faculty of Business Administration, Tamagawa University
Committee member	Masato Takebayashi	Associate Director, Asia Pacific Research, Sustainalytics
Committee member	Ryosuke Tamura	Executive Director, General Manager of ESG Finance & Product Innovation Division Investment Banking Business Unit
Committee member	Mana Nakazora	Chief Credit Strategist / Chief ESG Strategist Vice Chairperson Global Markets, Japan BNP Paribas Securities (Japan) Ltd
Committee member	Masami Hasegawa	Director, Environment & Energy Policy Bureau Keidanren (Japan Business Federation)
Committee member	Maiko Hachiya	Development Bank of Japan Inc. Sustainable Solution Department Senior Vice President
Committee member	Toshikazu Hayashi	Chief Director, Nippon Life Global Investors Europe Plc
Committee member	Reiko Hayashi	Director and Deputy President, BofA Securities Japan, Co., Ltd.
Committee member	Yuichi Honda	Line Manager, Responsible Investment Panning Center, Responsible Investment Dept The Dai-ichi Life Insurance Company, Limited
Committee member	Mari Yoshitaka	Mari Yoshitaka, Fellow, Principal Sustainability Strategist, Mitsubishi UFJ Research and Consulting Co., Ltd.

*Title is as of June 16, 2022, when the fourth Committee was held.

Observer	Financial Servicies Agency, Ministry of Economy, Trade and Industry, Bank of Japan
	The Life Insurance Association of Japan, Japanese Bankers Association, Japan Investment Advisors Association、Japan Exchange Group、The Japanese Institute of Certified Public Association, Japan Securities Dealers Association
Secretariat	Environment and Economy Division, Minister's Secretariat, the Ministry of the Environment, Japan
	The Japan Research Institute

Green Finance Committee (Exchange Meeting)
List of the names of participants

[Banking Sector]

Shiga Bank

Shinsei Bank

Development Bank of Japan

Mizuho Bank

Sumitomo Mitsui Banking Corporation

MUFJ Bank

Risona Holdings

Norinchukin

[Securities Sector]

Citigroup Global Markets Japan Inc.

Daiwa Securities

Nomura Securities

Mizuho Securities

Mitsubishi UFJ Morgan Stanley

Morgan Stanley MUFG Securities

BNP Paribas

JP Morgan Securities Japan

SMBC Nikko Securities

[Consulting & External Review Sector]

E&E Solutions Inc.

R&I

Japan Credit Rating Agency

Japan Research Institute

Mitsubishi UFJ Research & Consulting

DNV Business Assurance Japan K.K.

Sustainalytics

[Business Company (Issuer) Sector]

Ajinomoto Co., Inc

Kawasaki City

Japan Real Estate Asset Management

Tokyu Fudosan Holdidngs

Tokyo Metropolitan Government

TODA Coporation

East Japan Railway Company

NTT Finance Corporation

[Data Vendor Sector]

Refinitiv Japan K.K.

Bloomberg L.P.

FTSE Russell

MSCI Inc.

S&P Global Inc.

*S&P Global Inc. did not attend the opinion exchange meeting and responded in writing.

[Secretariat]

Environment and Economy Division, Minister's Secretariat, the Ministry of the Environment, Japan

The Japan Research Institute

List of Members of the Review Committee on Green Bonds / Green Loans, etc. in 2019

Chairperson	Takeshi Mizuguchi	Professor, Faculty of Economics, Takasaki University of Economics
Committee member	Kazuyuki Aihara	Senior Officer, Head of ESG products, Debt Capital Market Department, Nomura Securities Co., Ltd.
Committee member	Naoki Adachi	Representative Director of Response Ability Co., Ltd.
Committee member	Shinichiro Arie	Director, Head of Fixed Income Department, Investment Management Division, Amundi Japan Ltd.
Committee member	Yoshiyuki Arima	Representative of Japan, Finance Bureau of the World Bank
Committee member	Kosuke Ito	Director, Division of Financing,Treasury Department, Development Bank of Japan Inc.
Committee member	Takashi Uni	Deputy General Manager, Credit Investment Department, Nippon Life Insurance Company
Committee member	Hiroshi Kawakami	Joint General Manager, Syndicated Finance Structuring Department No.1, Mizuho Bank, Ltd.
Committee member	Kenji Kawamura	Professor of Commercial Law, Rikkyo Law School
Committee member	Ryo Saeki	Director, Bond Section, Budget Division, Bureau of Finance, Tokyo Metropolitan Government
Committee member	Yoshio Shima	Professor, Faculty of Business Administration, Tamagawa University
Committee member	Kazushi Shimizu	Executive Director, Department of Debt Capital Markets, Daiwa Securities Co., Ltd.
Committee member	Rin Shimizu	Vice President, Growth Industry Cluster Department, Sumitomo Mitsui Banking Corporation
Committee member	Masato Takebayashi	Associate Director, Asia Pacific Research, Sustainalytics
Committee member	Ryosuke Tamura	Executive Director, Debt Capital Markets Division, Investment Banking Business Unit, Mitsubishi UFJ Morgan Stanley Securities Co., Ltd.
Committee member	Mana Nakazora	Deputy Chairman, Global Market Management Division, BNP Paribas Securities Co., Ltd.
Committee member	Amane Yamazaki	Office Manager, Sustainable Business Office, MUFG Bank, Ltd., Responsible for Environmental and Social Risk Management
Observer	Japanese Bankers Association	
Observer	The Japanese Institute of Certified Public Accountants	
Observer	Japan Securities Dealers Association	
Secretariat	Environment and Economy Division, Minister's Secretariat, the Ministry of the	

Environment, Japan

Institute for Global Environmental Strategies

List of Participants in Opinion Exchange Meetings on Green Bonds, Green Loans, etc.

[Banking Sector]

<Attendees>

Kosuke Ito	Director, Division of Financing,Treasury Department, Development Bank of Japan Inc.
Hiroshi Kawakami	Joint General Manager, Syndicated Finance Structuring Department No.1, Mizuho Bank, Ltd.
Rin Shimizu	Vice President, Growth Industry Cluster Department, Sumitomo Mitsui Banking Corporation
Takeshi Mizuguchi	Professor, Faculty of Economics, Takasaki University of Economics
Amane Yamazaki	Sustainable Business Office, MUFG Bank, Ltd., Responsible for Environmental and Social Risk Management

<Observer>

Japanese Bankers Association

List of Participants in Opinion Exchange Meetings on Green Bonds, Green Loans, etc.

[Securities Sector]

<Attendees>

Kazuyuki Aihara	Senior Officer, Head of ESG products, Debt Capital Market Department, Nomura Securities Co., Ltd.
Sachie Ii	Head of Sustainable Finance Office, Corporate Finance Department, Mizuho Securities Co., Ltd.
Yuki Ukegawa	Vice President, Debt Capital Markets, JP Morgan Securities Co., Ltd.
Koji Ohmachi	Managing Director, Capital Markets Origination, Citigroup Global Markets Japan Inc.
Masataka Sampei	Managing Director, Deputy Head of Capital Markets, SDGs Finance, SMBC Nikko Securities Inc.
Yoshio Shima	Professor, Faculty of Business Administration, Tamagawa University
Kazushi Shimizu	Executive Director, Department of Debt Capital Markets, Daiwa Securities Co., Ltd.
Masanori Suzuki	Manager of Debt Capital Markets Group, Capital Markets Department, Tokai Tokyo Securities Co., Ltd.
Ryosuke Tamura	Executive Director, Debt Capital Markets Division, Investment Banking Business Unit, Mitsubishi UFJ Morgan Stanley Securities Co., Ltd.

Mana Nakazora	Deputy Chairman, Global Market Management Division, BNP Paribas Securities Co., Ltd.
Munetada Nakayama	Senior Manager, Syndication Department, SBI SECURITIES Co., Ltd.
Reiko Hayashi	Director of the Board, Deputy President, Managing Director, Merrill Lynch Japan Securities Co., Ltd.
Takeshi Mizuguchi	Professor, Faculty of Economics, Takasaki University of Economics

<Observer>

Japan Securities
Dealers Association

List of Participants in Opinion Exchange Meetings on Green Bonds, Green Loans, etc.

[Consulting & External Review Sector]

<Attendees>

Akira Ishiwata	Head of Credit Rating Planning and Research Office and Chief Analyst, ESG Promotion Department, Rating and Investment Information, Inc.
Atsuko Kajiwara	General Manager, Head Chief Sustainable Finance Analyst, Sustainable Finance Evaluation Department, Japan Credit Rating Agency, Ltd.
Masato Kanedome	Technical Assessor, Engineering Department, DNV GL Business Assurance Japan K. K.
Yoshio Shima	Professor, Faculty of Business Administration, Tamagawa University
Naoko Hase	Manager, ESG Research Center, Center for the Strategy of Emergence, Japan Research Institute, Co., Ltd.
Masato Takebayashi	Associate Director, Asia Pacific Research, Sustainalytics
Takeshi Mizuguchi	Professor, Faculty of Economics, Takasaki University of Economics

<Observer>
The Japanese Institute of Certified Public Accountants

Green Bond Review Committee
List of Names

<Chairman>

Takeshi Mizuguchi, Professor, Faculty of Economics, Takasaki City University of Economics

<Committee Member>

Naoki Adachi, President, Response Ability, Inc.

Kazuhiko Abe, Executive Officer, PwC Sustainability LLC

Toru Inoue, General Manager of the Investment Banking, Capital Market, and Infrastructure and Structured Finance Departments, Goldman Sachs Japan Co., Ltd.

Daisuke Kawaguchi, Section Chief, Credit Investment Department, Nippon Life Insurance Company

Yoshio Shima, Professor, College of Business Administration, Tamagawa Academy and University

Masayasu Sugawara, Public Bond Section Chief, Accounting Division, Bureau of Finance, Tokyo Metropolitan Government

Ko Teramoto, General Manager, Planning Department, Office REIT Division, Kenedix Real Estate Fund Management, INC.

Ken Tokuda, Senior Deputy Section Chief, Overseas Origination Section and Second Origination Section, Debt Capital Market Department, Daiwa Securities Co., Ltd.

Mototsugu Matsuoka, Assistant Manager and Treasury Section Chief, Treasury Department, Development Bank of Japan Inc.

<Observer>

Keiko Kishigami, Executive Director, Japanese Institute of Certified Public Accountants

Masato Maruno, General Manager, Public Bonds and Financial Products Department, and Market Statistics Office Chief, Self-regulation Board, Japan Securities Dealers Association

<**Secretariat**>

Environment and Economy Division, Environmental Policy Bureau, Ministry of the Environment, Japan

Green Bond Opinion Exchange Meeting
List of the names of participants

<**Market Participants**>

Dai Kitatani	Vice President, Capital Market Department, Citigroup Global Markets Japan Inc.
Hiroshi Aoki	General Manager, Capital Market Department, Tokyo Branch, Credit Agricole Securities Asia BV
Masanori Kato	Managing Director and General Manager, Bond and Capital Market Department, JP Morgan Securities Japan, Co., Ltd.
Yuki Ukegawa	Associate, Bond and Capital Market Department, JP Morgan Securities Japan, Co., Ltd.
Reiko Hayashi	Executive Officer, Managing Director, and General Manager, Bond and Capital Market Department, Merrill Lynch Japan Securities
Ryota Suzuki	Managing Director and General Manager, Bond and Capital Market Department, Capital Market Division, Merrill Lynch Japan Securities

<**Green Bond Review Committee Members**>

Kazuhiko Abe	Executive Officer, PwC Sustainability LLC
Toru Inoue	General Manager of the Investment Banking, Capital Market, and Infrastructure and

Structured Finance Departments, Goldman Sachs Japan Co., Ltd.

Daisuke Kawaguchi Section Chief, Credit Investment Department, Nippon Life Insurance Company

Yoshio Shima Professor, College of Business Administration, Tamagawa Academy and University

Ken Tokuda Senior Deputy Section Chief, Overseas Origination Section and Second Origination Section, Debt Capital Market Department, Daiwa Securities Co., Ltd.

(Attendance by proxy: Yuma Morisawa, Assistant Section Chief, Overseas Origination Section, Debt Capital Market Department)

Mototsugu Matsuoka Assistant Manager and Treasury Section Chief, Treasury Department, Development Bank of Japan Inc.

Takeshi Mizuguchi Professor, Faculty of Economics, Takasaki City University of Economics

<**Observers>**

Keiko Kishigami Executive Director, The Japanese Institute of Certified Public Accountants

Masato Maruno General Manager, Public Bonds and Financial Products Department, and Market Statistics Office Chief, Self-regulation Board, Japan Securities Dealers Association

Third-Party Committee on Green Bond Guidelines

<**Committee Member**>

Toshihiko Goto Supreme Advisor, Japan Sustainable Investment Forum

Representative Trustee, Sustainability Forum Japan

Takejiro Sueyoshi Special Advisor, UNEP Finance Initiative

Itaru Yasui Professor Emeritus at the University of Tokyo

President, Institute of Promoting Sustainable Societies

<**Observer**>

Takeshi Mizuguchi Professor, Faculty of Economics, Takasaki City University of Economics

<**Secretariat>**

Environment and Economy Division, Environmental Policy Bureau, Ministry of the Environment, Japan

Green Bond and Sustainability-Linked Bond Guidelines 2022

Established in March 2017

Revised in March 2020

Revised in July 2022

Ministry of the Environment, Japan

Disclaimer

The Green Bond Guidelines (hereinafter “the Guidelines”) are legally non-binding and no legal penalties will be imposed even if a certain action does not comply with the elements (including elements described with the word “should”) described in the Guidelines. However, it is necessary to note that if a certain action violates any laws or regulations, legal penalties may be imposed based on said laws or regulations, even though the action complies with the elements described in the Guidelines.

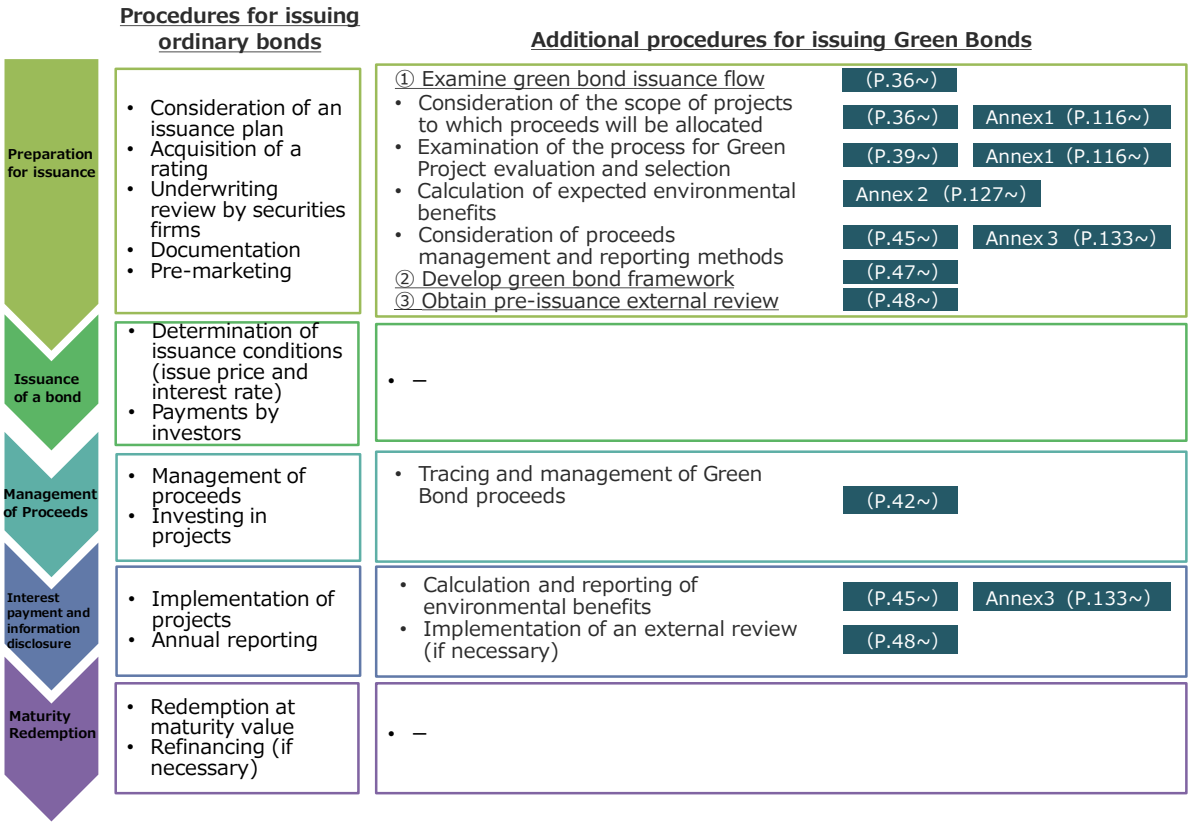
The Guidelines do not constitute advice on decisions regarding investments in individuals, other securities, or financial matters, or recommendations to purchase, sell, or hold specific Green Bonds or other securities.

The Guidelines do not guarantee that the projects to which proceeds from specific Green Bonds, etc. are allocated will produce the intended environmental benefits, and assume no responsibility whether the projects realize their environmental benefits or not.

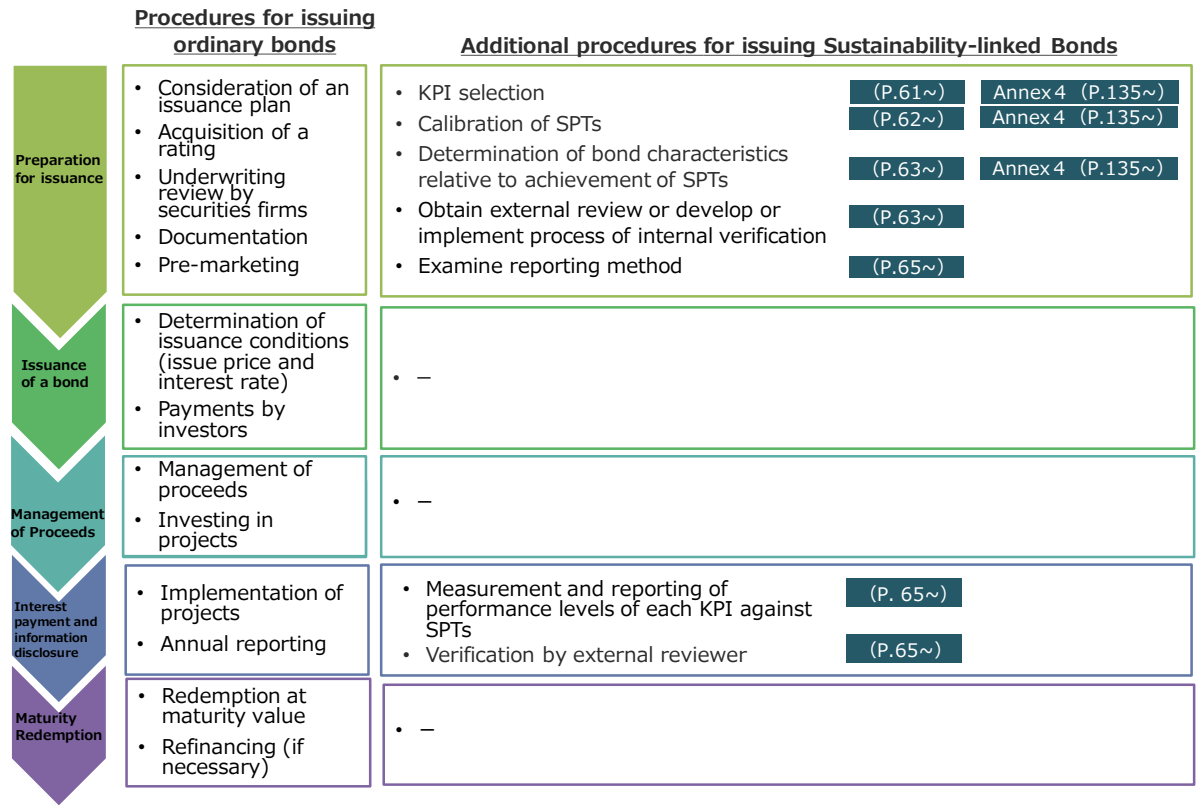
Those who issue, purchase, sell, or hold specific Green Bonds or other securities shall do so at their own risk.

The Ministry of the Environment, Japan of Japan will not be liable in any way for any loss, damage, or expense of any kind incurred as a result of, or in connection with, the use of the information presented in the Guidelines, and/or caused by any modifications or the abolition of the Guidelines.

Issuance flow of Green Bond and Sustainability-Linked Bond



*The page numbers in the figure refer to the relevant sections of these guidelines.



*The page numbers in the figure refer to the relevant sections of these guidelines.

Chapter 1 Introduction

1. Purpose of the Guidelines

In November 2021, the "Glasgow Climate Pact" was adopted at COP26 held in Glasgow, United Kingdom. Pursuant to this pact, it was agreed that it would be necessary to reduce global CO2 emissions by 45% by 2030 relative to the 2010 levels and to net zero around mid-century in order to achieve "the goal of limiting global warming preferably to 1.5 degrees Celsius" in the "Paris Agreement". To achieve this goal, COP26 agreed that accelerated actions would be required in this "critical decade" to 2030. For a substantial early reduction in CO2 emissions and structural changes towards a decarbonized economy and society, it is necessary to mobilize large amounts of private investments towards Green Projects, such as renewable energy projects.

During COP26, GFANZ[1], a global coalition of financial institutions aiming to achieve net zero, was officially established, with the participation of many Japanese financial institutions. In addition, there has been further acceleration of the global movements from the financial side to encourage companies to decarbonize; for instance, the IFRS Foundation, affiliating the International Accounting Standards Board (IASB) which established the International Financial Reporting Standards (IFRS), founded the International Sustainability Standards Board (ISSB) and started working toward the international standardization of information disclosure on sustainability including climate change.

In addition, heavy rainfall events have become more frequent in recent years, with climate change identified as a contributing factor in weather-related disasters that have caused significant damages. As global warming intensifies, it is predicted that the frequency and intensity of extreme events such as heavy rainfall will increase and that the impacts will increase in various sectors such as agriculture, forestry, fisheries, and health. In parallel to this, the importance of adaptation projects that avoid or mitigate the risks of climate change. At the same time, it is essential to address, along with climate change, conservation of biodiversity, prevention of air and marine pollution, and resource recycling including measures against plastic waste, as the interlinkage between climate change and biodiversity loss in the Glasgow Climate Pact that highlights the importance of protecting, conserving and restoring nature and ecosystems. The role of private capital is also important for integrated initiatives in these fields.

In addition to the sustainable finance frameworks such as TCFD[2], which has taken the lead on decarbonization, the Taskforce on Nature-related Financial Disclosures (TNFD) was launched in 2021and discussions are in progress toward the publication of a disclosure framework in 2023. Not only business entities but also investors and financial institutions came to regard the sustainable

[1] Glasgow Financial Alliance for Net Zero
[2] Task force on Climate-related Financial Disclosures

use of natural capital as an element of business, as all business activities of companies affect and depend on natural capital.

Japan has pledged to become carbon neutral by 2050, and has set an ambitious target aligned with the 2050 goal: a 46% reduction in GHG emissions by 2030 from 2013 levels, while striving for a 50% reduction. To achieve these goals, not only the transformation in the energy distribution structure but also bold actions across local communities, lifestyles, and industrial structures are necessary. Furthermore, responding to climate change is deeply interlinked with challenges across various fields, including natural disasters, natural ecosystems, health, agriculture, forestry and fisheries, industry and economic activities. Therefore, Japan needs to holistically approach its aim to achieve carbon neutrality by 2050, as well as its aim to realize a sustainable economy and society in a broader sense, and drive investments into these initiatives.

Under such circumstances, the issuance of Green Bonds, bonds[3] issued by corporations and local governments to raise funds for Green Projects, and investment in these bonds have expanded both inside and outside of Japan.. Green Bonds are becoming one of the effective tools to drive private funds for Green Projects, including ones that contribute to the reduction of greenhouse gas (GHG) emissions and the prevention of natural capital deterioration. This trend became evident after the "Green Bond Principles[4]" (hereinafter referred to as "GBP") were formulated in January 2014. In Japan, after establishing these Guidelines for the first time in 2017, bond issuance expanded rapidly, with the amount of bonds issued by domestic entities exceeding 1.8 trillion yen in 2021. However, while the issuance of Green Bonds in Japan is on upward trend, it is still in its developing state compared to other countries, and also insufficient given the need to introduce large amounts of private funds to achieve the afore-mentioned international goals. At the same time, as the global Green Bond market continues to expand, there has been rising concerns about "green wash" (proclaiming to be "green" despite having no environmental benefits or not allocating proceeds[5] appropriately to eligible Green Projects) and the requirement from the market has increased, taking into account the overall environmental performance and sustainability/ESG strategies of the issuer when assessing Green Bonds. Accordingly, it is essential to ensure the credibility of Green Bonds for further expansion of the market.

In addition, the Sustainability-Linked Bond Principles[6] (hereinafter referred to as "SLBP") were

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[3] "Green Bonds" not only include bonds but also securitized bonds described in 1 under Section 1 of Chapter 2.

[4] ICMA, Green Bond Principles (June 2021),
https://www.icmagroup.org/sustainable-finance/the-principles-guidelines-and-handbooks/green-bond-principles-gbp/
Green Bond Principles (GBP) are published by the International Capital Market Association (ICMA) for voluntary frameworks and commonly recognized as international standards on issuance of Green Bonds. Following the June 2021 revision of the GBP, the Appendix was updated in June 2022, and a new supplemental Pre-issuance Checklist was published.

[5] "Proceeds" in the Guidelines means the "net proceeds" after issuance fees of the Green Bonds have been deducted.

[6] ICMA, Sustainability-Linked Bond Principles (June 2020)
https://www.icmagroup.org/sustainable-finance/the-principles-guidelines-and-handbooks/sustainability-linked-bond-principles-slbp/

published in June 2020. Sustainability-Linked Bonds allow the funds raised can be used for general purposes and encourage companies to enhance their sustainability management by achieving ambitious targets (SPTs: Sustainability Performance Targets). Such instruments can also be effective tools for mobilizing private funds in this field, as they increase incentives to achieve targets and enhance sustainability management through dialogue with investors. Also, while Sustainability-Linked Bonds have the significant advantage of enabling companies to show the direction of their sustainability business strategies as they encourage companies to enhance their sustainability management through achieving SPTs, there are some arguments whether green eligibility is sufficiently secured. Therefore, it is expected that appropriate disclosure will be made in accordance with the Guidelines.

Considering the above, the purpose of the Guidelines is to expand the Green Bond market and the Sustainability-Linked Bond market in Japan in a sound and proper manner. In the meantime, the Guidelines provide market transparency as well as clarification on green eligibility reflecting international trends, in order to address the concerns around greenwashing and secure credibility of Green Bonds.

Moreover, the Guidelines align with the GBP and SLBP, which are widely accepted in international Green Bond and Sustainability-Linked Bond markets, and provide issuers, investors, and other market participants with illustrative examples of specific approaches and interpretations tailored to the Japanese market for their reference in decision-making regarding Green Bonds and Sustainability-Linked Bonds. The Guidelines aim to establish the credibility of the Green Bonds' impact on improving the environment as well as alleviate the costs and administrative burdens for issuers, thereby spurring sound and proper expansion of the Green Bond and Sustainability-Linked Bond markets in Japan.

It should be noted that the Guidelines are not legally binding and thus no legal penalties will be imposed if a certain action does not comply with the elements described in the Guidelines (including elements described with the word "should"). However, it is necessary to note that, if a certain action violates any laws and regulations, legal penalties may be imposed .

Furthermore, the Guidelines were first developed as the Green Bond Guidelines in 2017 and revised twice in 2020 and 2022, in light of revisions to the international principles as well as market and domestic policy trends. Thus it is recommended to make sure to refer to the latest version.

Sustainability-Linked Bond Principles are published by the International Capital Market Association (ICMA) for voluntary frameworks and commonly recognised as international standards on issuance of Sustainability-Linked Bonds. Following the development of the SLBP in June 2020, a registry of KPIs was released as a new supplement in June 2022.

2. Basic Concepts of the Guidelines

(1) Green Bonds

The Green Bond market is to be developed through interactions based on sufficient information between issuers clearly declaring that they will allocate the proceeds only to Green Projects, and investors who want to invest in Green Projects of their choice. The final decision on how to evaluate the appropriateness of the issuer's approach to Green Bonds, and whether or not to target Green Bonds for investment, is left to the market.

It is helpful to organize the expected elements of Green Bonds in the Guidelines to form the foundation for interactions between issuers and investors and serve as a tool for assuring stakeholders that the finance/investment is for Green Projects.

Additionally, it is important for both issuers and investors that the credibility of the green eligibility of Green Bonds is maintained within the market and society. In particular, preventing greenwashing in the market is imperative for the protection of Green Bond investors.

Based on the above, the Guidelines have been developed in alignment with the internationally accepted GBP (as of June 2021) . The Guidelines recognize that a Green Bond that align with its four components: (1) Use of Proceeds, (2) Process for Project Evaluation and Selection, (3) Management of Proceeds, and (4) Reporting, all of which are described with the word "should" in Chapter 2 of the Guidelines, can be internationally accepted as Green Bonds[7]. In addition, addressing the two Key Recommendations in the Guidelines: (1) Green Bond Frameworks, and 2) External Reviews (also described with the word "should") would also contribute to improving the transparency of Green Bonds, which the ICMA Green Bond Principles emphasize.

(2) Sustainability-Linked Bonds

Like the Green Bond market described above, the Sustainability-Linked Bond market is also to be developed through interactions based on sufficient information between issuers and investors. In terms of how to evaluate whether the issuer's approach to the Sustainability-Linked Bonds is appropriate, and whether a Sustainability-Linked Bond will be selected as a target for investment, the final decision is left to the market.

The Guidelines have been developed in alignment with the SLBP (June 2020), and, in particular, recognize that a Sustainability-Linked Bond is expected to align with five components: (1) Selection of Key Performance Indicators (KPIs), (2) Calibration of Sustainability Performance Targets (SPTs), (3) Bond characteristics, (4) Reporting, and (5) Verification. Bonds that address all of these components described with the word "should" in Chapter 3 of the Guidelines can be internationally accepted as Sustainability-Linked Bonds.

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[7] However, it is necessary to keep in mind that an individual Green Bond is to be evaluated and selected by each investor and other related participants based on their own ways of thinking.

(3) Common items

As for the items whose interpretation may vary among issuers, investors, and other market participants, it is important to establish a mechanism whereby the issuers discloses how they address them and investors or other market participants evaluate its appropriateness, and the market participants accumulate and make the most of knowledge.. This mechanism will improve market discipline to prevent the risk of greenwashing while ensuring the diversity of issuers' approaches to each item.

On an international basis, various countries and jurisdictions try to classify environmentally-sustainable economic activities in order to identify eligible recipients of investments and loans in sustainable finance[8]. The Guidelines have the same objectives, in a sense that it clarifies and provides in Annex 1 the guidance on the definition of environmental aspects, i.e., green eligibility, as a reference for assessment in the market.

With regard to the use of proceeds of Green Bonds in Japan, it is also important to continue to take necessary measures, monitoring the international collaborative efforts and improving international comparability and interoperability.

These Guidelines focus on the green eligibility of Green Bonds (including the green characteristics of Sustainability Bonds which include Green Projects in their use of proceeds) and the sustainability of Sustainability-Linked Bonds, and therefore do not cover their characteristics and risks as bonds. It is important to note that Green Bonds and Sustainability-Linked Bonds, even if aligned with the Guidelines, have credit risks, price fluctuation risks, liquidity risks, and other risks, like ordinary bonds. Likewise, it is important to make sure that Green Projects do not have significant negative impact on the society.

3. Relations with Related Financial Approaches and Instruments

Financial approaches and instruments related to Green Bonds and Sustainability-Linked Bonds include Climate Transition Finance and Sustainability Bonds as shown below. They are not mutually exclusive, and issuers should determine the label based on their business strategy, finance strategy and/or sustainability/ESG strategy, and conditions in the market. The combination of these financial approaches and instruments can contribute to stabilizing and diversifying corporate funding as well as delivering a clear message to the market.

(i) Climate transition finance

Climate transition finance is a financial approach to support GHG emissions reduction initiatives

[8] In the EU, taxonomy rules have been established to clarify whether economic activities are environmentally sustainable etc. and have already been implemented in the two areas of climate change mitigation and adaptation. In the areas of climate change mitigation and others and the Climate Bond Initiative, an international NGO in the United Kingdom, has also formulated taxonomies.

of companies that take action to reduce emissions based on their long-term strategies for transition to a decarbonized society[9]. This finance approach is for the companies that committed to ambitious efforts for their future as they are required to have explicit strategies to achieve long-term goals consistent with the Paris Agreement. Climate transition finance is therefore an important tool for realizing a decarbonized society.

At the same time, climate transition finance is determined holistically – not just by the use of proceeds or the KPIs but rather by the credibility of the issuer's climate transition strategy and execution. Issuers can label their bonds as climate transition finance when the bonds meet the four key elements[10] of climate transition finance as well as the criteria for Green Bonds or Sustainability-Linked Bonds set forth in the Guidelines for issuance processes.

As mentioned above, the choice of the label should be determined by the issuer based on their own business strategy, finance strategy, and/or sustainability/ESG strategy in the market as mentioned above. Meanwhile, issuers can choose to label their bonds as climate transition finance for climate change mitigation projects by referencing the four key elements of Climate Transition Finance, in case they disclose their climate transition strategies in line with Paris Agreement.

(ii) Sustainability Bonds

Sustainability Bonds are defined by the use of proceeds limited to finance or refinance of Green and Social Projects, and by the alignment with the four core components of the GBP (or these Guidelines) and/or Social Bond Principles (SBP)[11] (or the Social Bond Guidelines published by the Financial Services Agency[12]).

The issuance of Sustainability Bonds has grown internationally since the establishment of the Sustainability Bond Guidelines in 2017[13]. Sustainability Bonds, which include Green Projects in the use of proceeds, offer the same benefits as Green Bonds and are an effective tool to introduce private funds into Green Projects.

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[9] See the "Basic Guidelines on Climate Transition Finance" by the Financial Services Agency, the Ministry of Economy, Trade and Industry, and the Ministry of the Environment, Japan.
https://www.meti.go.jp/press/2021/05/20210507001/20210507001-3.pdf

[10] In the "Climate Transition Finance Handbook" and the "Basic Guidelines on Climate Transition Finance," four elements (Element 1: Issuer's climate transition strategy and governance; Element 2: Business model environmental materiality; Element 3: Science-based climate transition strategy that includes targets and pathways; Element 4: Implementation transparency) are recommended to be disclosed by the issuer.

[11] ICMA Social Bond Principles (June 2022)
https://www.icmagroup.org/assets/documents/Sustainable-finance/2021-updates/Social-Bond-Principles-June-2021-140621.pdf
The Social Bond Principles are voluntary guidelines for social bond issuance established by the International Capital Markets Association (ICMA) and are generally recognized as the international standard for social bonds.

[12] The Financial Services Agency published the Social Bond Guidelines, in accordance with the Social Bond Principles of the ICMA.
The Social Bond Guidelines (October 2021)
https://www.fsa.go.jp/news/r3/singi/20211026-2/02.pdf

[13] ICMA Sustainability Bond Guidelines (June 2021)
https://www.icmagroup.org/assets/documents/Sustainable-finance/2021-updates/Sustainability-Bond-Guidelines-June-2021-140621.pdf

While these Guidelines set out expected elements and other issues with a focus on the green characteristics of Green Bonds, they also apply to the green characteristics of Sustainability Bonds. Accordingly, the components in Section 2 of Chapter 2 shall also apply to Sustainability Bonds that have green characteristics, by replacing the term “Green Bonds” with the term “Sustainability Bonds”.

4. Structure of the Guidelines

Section 1 of Chapter 2 provides an overview of Green Bonds. It also describes the benefits of issuance and investment in Green Bonds, as a reference for issuers who are considering to issue Green Bonds and for investors who are considering to invest in them.

Section 2 of Chapter 2 describes expected elements of Green Bonds and examples of possible approaches.

Section 1 of Chapter 3 provides an overview of Sustainability-Linked Bonds as well as their benefits to issuers and investors..

Section 2 of Chapter 3 describes expected elements of Sustainability-Linked Bonds and examples of possible approaches.

The precision of wording in Chapters 2 and 3 is as follows:

(i) Sentences containing the word “should” indicate essential elements for bonds labeled as “green” or “sustainability-linked” .

(ii) Sentences containing the word “recommend” indicate ideal but not requisite elements for bonds labeled as “green” or “sustainability-linked” that the Guidelines suggest to install.. *

[*The use of external reviews is placed as Key Recommendations in the ICMA Green Bond Principles (GBP) and the Guidelines and is an important element to enhance the transparency of the bonds.]

(iii) Sentences containing the phrase “to be considered” are examples of possible approaches and interpretations of the Green Bond and Sustainability-Linked Bond Guidelines, although they are not requisite for labels as “green” or “sustainability-linked”.

Chapter 4 describes expected procedures for investors.

5. How to Cite these Guidelines

When citing these Guidelines, they should be referred to as the “Green Bond Guidelines 2022” when specifically referencing the Green Bond sections, and as the “Sustainability-Linked Bond Guidelines 2022” when specifically referencing the Sustainability-linked Bond sections.

Chapter 2 Green Bonds

Section 1 Overview of Green Bonds

1. Definition of Green Bonds

Green Bonds are bonds issued to raise funds for eligible domestic and overseas Green Projects. Specifically, these bonds have the following features: (i) the proceeds, or an equivalent amount, will be exclusively allocated to eligible Green Projects, (ii) proceeds are tracked and managed in a reliable manner, and (iii) transparency is ensured by reporting after the issuance of the bonds.

The issuers of Green Bonds include: (i) corporations that raise funds for Green Projects (including Special Purpose Companies ("SPCs"[14]) that only handle Green Projects), (ii) financial institutions that raise investment funds and loans for Green Projects, and (iii) local governments that raise funds for Green Projects.

Investors in Green Bonds include: (i) institutional investors, such as pension funds and insurance companies that commit to ESG (environmental, social, and governance) investments; (ii) investment managers entrusted with the management of ESG investments, and (iii) individual investors who focus on the specific use of the proceeds.

Currently, the GBP list the following four types of Green Bonds, which vary by redemption resources and other characteristics.

Standard Green Use of Proceeds Bond	An unsecured debt obligation with full recourse-to-the-issuer only and aligned with the GBP.
Green Revenue Bond	A non-recourse-to-the-issuer debt obligation aligned with the GBP in which the credit exposure in the bond is to the pledged cash flows of the revenue streams, fees, taxes etc., and whose use of proceeds go to related or unrelated Green Project(s).
Green Project Bond	A project bond for a single or multiple Green Project(s) for which the investor has direct exposure to the risk of the project(s) with or without potential recourse to the issuer, and that is aligned with the GBP.
Green Secured Bond	A secured bond where the net proceeds will be exclusively applied to finance or refinance either: i. The Green Project(s) securing the specific bond only (a "Secured Green Collateral Bond"); or ii. The Green Project(s) of the issuer, originator or sponsor, where such Green Projects may or may not be securing the specific bond in whole or in part (a "Secured Green Standard Bond"). A Secured Green Standard Bond may be a specific class or tranche of a larger transaction[15]

[14] A SPC (Special Purpose Company) is a corporation established for the limited purpose of acquisition of and financing backed by specific assets (real estate, bonds).

[15] This Secured Green Bond category may include, but is not limited to, covered bonds, securitisations, asset-backed commercial paper, secured notes and other secured structures, where generally, the cash flows of assets are available as a source of repayment or assets serve as security for the bonds in priority to other claims.

For each Secured Green Bond, the issuer, originator or sponsor should clearly specify in their marketing materials, offering

2. Benefits of Green Bonds

(i) Benefits to Issuers

Benefits for issuers of issuing Green Bonds include the followings:

1) Improve corporate sustainability and dialogue with investors

Working on issuance of Green Bonds may lead to the development and implementation of sustainability strategy, risk management, and governance systems within the organizations. This also helps issuers satisfy the ESG information disclosure requirement by the Task Force on Climate-related Financial Disclosures (TCFD)[16]. These developments will lead to improve the issuer's ESG evaluations in the mid-to-long term and thus possibly enhance its corporate value.

Furthermore, dialogue with investors acquired through the issuance of Green Bonds may lead to the further improvement of corporate sustainability.

2) Strengthen a funding base by acquiring new investors and stabilize funding through dialogue with investors

Diversifying a funding base is an effective means for issuers to reinforce their fundraising strategy. Green Bond offers issuers the opportunity to reinforce their funding base by acquiring new investors who value investments that help to tackle environmental problems such as climate change. In addition, through dialogue with investors, mutual understanding of each other's views and initiatives may be deepened, leading to stable funding.

3) Enhance corporate reputation by promoting Green Projects

Since the use of Green Bond proceeds is limited to Green Projects, if issuers, such as companies or local governments, issue Green Bonds, the proceeds are allocated only to Green Projects, leading to promoting such projects. Furthermore, disclosure requirements by the green bond market will ensure a highly transparent Green Bond framework and subsequent reporting. Therefore, issuers can demonstrate that they are actively promoting Green Projects by issuing Green Bonds, which can enhance their reputation.

4) Possibility of gaining pricing benefits

Depending on market conditions, Green Bonds could offer pricing benefits if investor demand is

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documentation or by other means, which method defined in (i) or (ii) above is being applied, i.e. whether it is a Secured Green Collateral Bond or a Secured Green Standard Bond.

There should be no double counting of Green Projects under a Secured Green Bond with any other type of outstanding green financing and the issuer, originator or sponsor (as applicable) must ensure full alignment with all Core Components of the GBP.

[16] The TCFD (Task Force on Climate-related Financial Disclosure) established by the FSB (Financial Stability Board). The final recommendations, presented in June 2017, encourage companies and investors to conduct climate-related financial disclosures for the appropriate assessment of climate related risks and opportunities and their financial implications for appropriate investment decisions. The revised Corporate Governance Code requires Prime Market-listed companies to enhance the quality and quantity of disclosure based on the TCFD or equivalent framework.

high. Moreover, Green Bonds can be an alternative financing measure for those with limited access to loans. For example, it may be difficult for companies that have not built solid relationships with financial institutions yet, such as emerging renewable energy companies, to obtain loans with favorable terms. In such cases, if the company issues Green Bonds or similar instrument that uses cash-flow generated from renewable energy or other comparable projects with strong business viability to repay interest and redeem bonds, then that company may be able to raise funds on relatively favorable terms from investors who are well-versed in evaluating the feasibility of such businesses.

(ii) Benefits to investors

The benefits to investors investing in Green Bonds include the followings :

1) Satisfy ESG investment requirements and enhance reputation

Some institutional investors are committed to a certain scale of ESG investment. For such investors, Green Bonds are products that have transparent frameworks on green characteristics in accordance with market practices, and thus satisfy their ESG investment requirements as well as generate stable cashflows unless in the case of defaults. . Moreover, investors that do not have such commitments can demonstrate that they actively invest in Green Bonds and support Green Projects, thereby enhancing their reputation while obtaining stable cash flows.

2) Achieve both investment returns, and environmental and social benefits

By investing in Green Bonds, investors can help issuers generate environmental and social benefits (listed below in (iii)) that contribute to creating a sustainable society while simultaneously gaining returns on their investments.

3) Enable direct investments in Green Projects

In light of the global quest for lower GHG emissions based on the Paris Agreement, it is expected that the demand for investment in Green Projects related to renewable energy and energy efficiency will increase substantially. Green Bonds offer investors the opportunity to invest directly in such projects.

4) Mitigate risks

Some articles indicate that Green Bonds can be less volatile than conventional bonds. Therefore, green bonds could be an effective investment for those who seek to control the risk of price fluctuations. Moreover, when renewable energy or energy efficiency projects are the use of proceeds of Green Bond, such Green Bonds may be effective as a means of mitigating investors' own climate transition risks, which is expected to arise as the world strives for significant reductions in GHG emissions based on the Paris Agreement.

5) Enable effective engagement on ESG matters

Green Bonds enable investors to engage more effectively with issuers on holistic environmental

impacts, including positive environmental impacts and associated negative environmental and social impacts, through evaluating disclosed sustainability information such as environmental impacts and better understanding issuers' sustainability/ESG strategies. Such efforts will lead to a virtuous cycle of enhancing issuers' sustainability and improving investors' mid-to-long term investment returns, which in turn will generate environmental impacts through investment and realize a sustainable society.

(iii) Environmental and Social Benefits

Environmental and social benefits that can be achieved from the issuance of and investments in Green Bonds include the followings:

1) Contribute to global environmental conservation

The dissemination of Green Bonds expands private investments in Green Projects, such as renewable energy and energy efficiency projects, and contributes to the long-term substantial reduction in GHG emissions in Japan and beyond. Moreover, Green Bonds can mobilize capital to Green Projects beyond climate mitigation, thereby contributing to the prevention of the degradation of natural capital, which is the foundation of long-term profits for companies.

2) Raise individuals' awareness of green investments

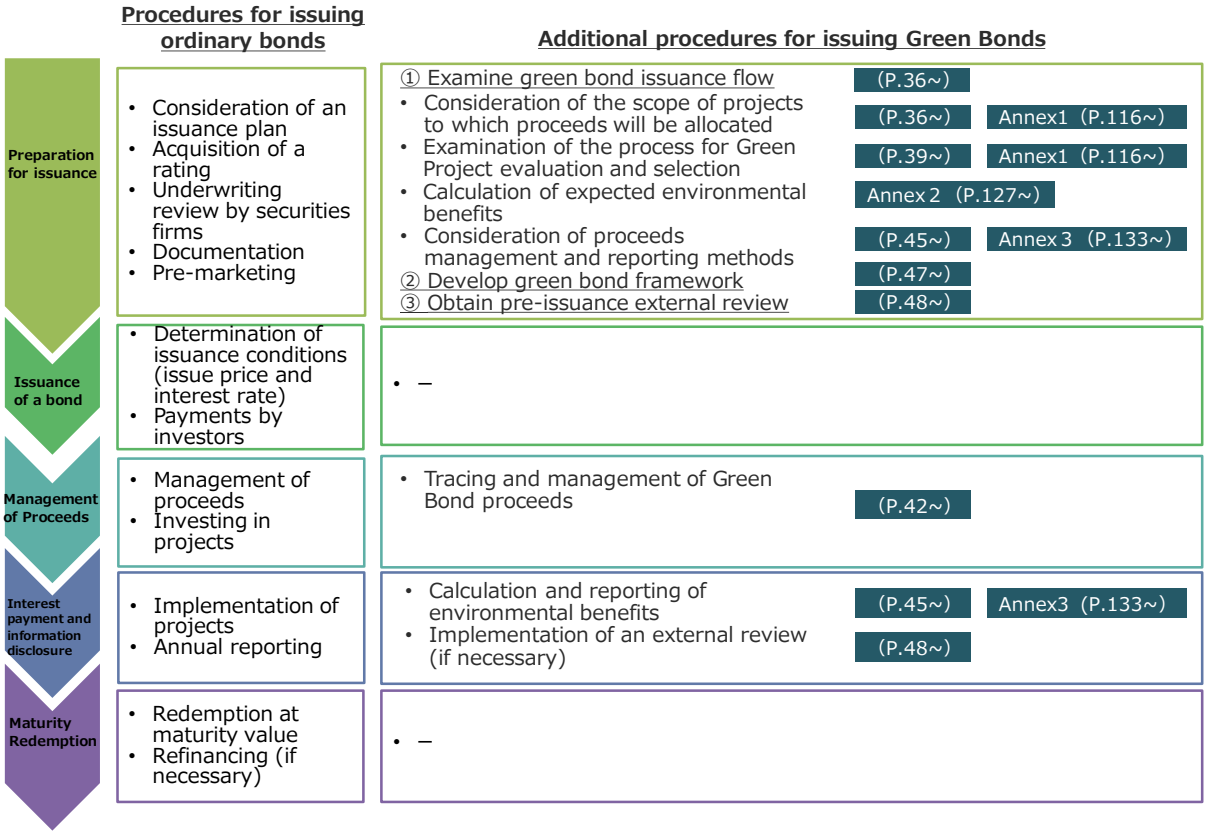
The dissemination of Green Bonds will enhance individuals' awareness of green investments, which will in turn motivate institutional investors, who are the trustees of individuals' assets, to actively invest in green projects. Moreover, it will enhance individuals' interest in the use of own savings and investments, contributing to greening the economy as a whole.

3) Contribute to resolving social and economic issues through the promotion of Green Projects

Promoting Green Projects through the dissemination of Green Bonds may lower energy costs, strengthen energy security, reactivate the regional economy, and enhance resilience in the event of disasters.

3. Green Bond Issuance Flow

Companies, local governments, or other organizations that issue Green Bonds need to follow extra procedures, in addition to the procedures required for issuing ordinary corporate bonds, municipal bonds, and securitized products, etc. These extra procedures are illustrated below:



*The page numbers in the figure refer to the relevant sections of these guidelines.

Section 2 Expected Components of Green Bonds and Examples of Possible Approaches

1. Core Components of Green Bonds

1-1. Use of Proceeds

[Use of proceeds]

(i) Proceeds of Green Bonds should be used for eligible Green Projects that have clear environmental benefits. Issuers should assess the environmental benefits and are recommended to quantify them where feasible.

(ii) Specific examples of the use of proceeds may include Green Projects described in Annex 1 (including assets, investments, and other related and supporting expenditures such as R&D expenses, capacity building expenses and monitoring expenses related to such projects).

(iii) Green Projects may have associated negative environmental and/or social impacts, in addition to their intended environmental benefits. Green Projects that provide clear environmental benefits described above are projects that the issuer considers that such negative impacts are not excessive in comparison to the environmental benefits.
Annex 1 shows some of the typical examples of such negative impacts.

[Communication with investors in advance on the use of proceeds]

(iv) Issuers should provide investors, in advance, with information regarding the use of Green Bond proceeds through legal documentation[17] (such as a prospectus) or other documents.

(v) Communication with investors on the use of proceeds should specify the project category of the Green Project, such as the construction of facilities for a wind power generation project or lending to projects related to biomass power generation, so that investors and other market participants are able to evaluate the appropriateness of the use of proceeds. In cases where individual Green Projects have been specified, it is recommended that issuers clearly specify the relevant projects.

(vi) In cases where Green Projects have associated negative environmental and/or social risks along with the intended environmental benefits, issuers should include information such these negative impacts (e.g., the assessment results, how the issuer will address them) in their communication so that investors and market participants can appropriately evaluate these impacts.

[17] Including agreements made among parties involved.

[Measures for when proceeds are allocated to refinancing]

(vii) Green Bond proceeds can be allocated not only to new Green Projects but also to refinance existing Green Projects.

While the proceeds allocated to refinancing can maintain existing Green Projects, their environmental significance differs from that of proceeds allocated to finance new Green Projects, since refinancing existing Green Projects does not always generate additional environmental impact.

In cases where Green Bond proceeds are used to refinance existing Green Projects, it is recommended that issuers provide information to the investors regarding (1) the estimated amount (or share) of the bond proceeds being allocated for refinancing, and (2) which Green Projects (or Green Project categories) are to be refinanced. Furthermore, when using the proceeds for refinancing Green Projects, the issuers are recommended to indicate the target period of the given Green Projects (lookback period).

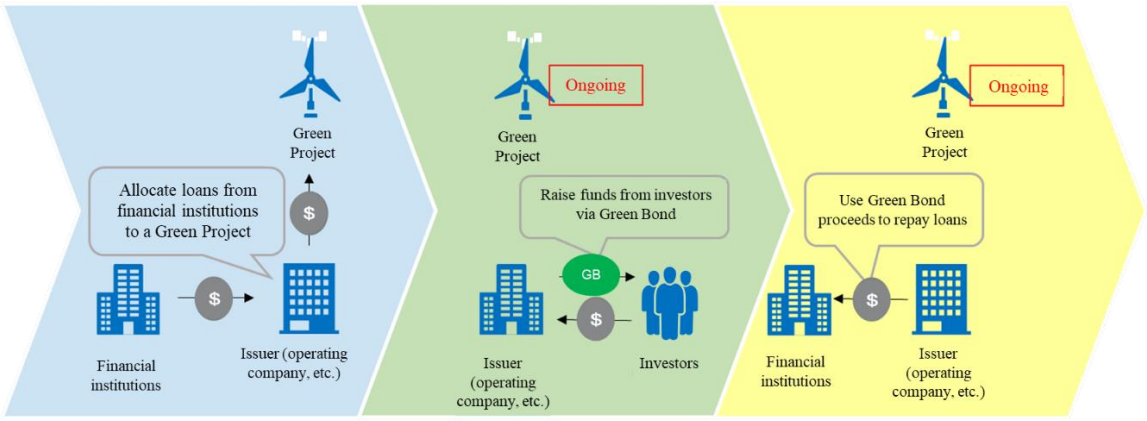
In cases where the percentage of proceeds allocated to new Green Projects is greater than that for refinancing, providing an estimated amount (or share) of the proceeds being allocated to a new project may serve to enhance the assessment of the Green Bond.

When Green Bonds are issued multiple times to refinance an asset that requires long-term maintenance, the issuer should clearly disclose the asset's age, remaining useful life and the amount to be refinanced, as at the time of the bond issuance, evaluate the long-term sustainability of environmental benefits and obtain an assessment from an external reviewer as necessary.

<Possible refinancing examples>

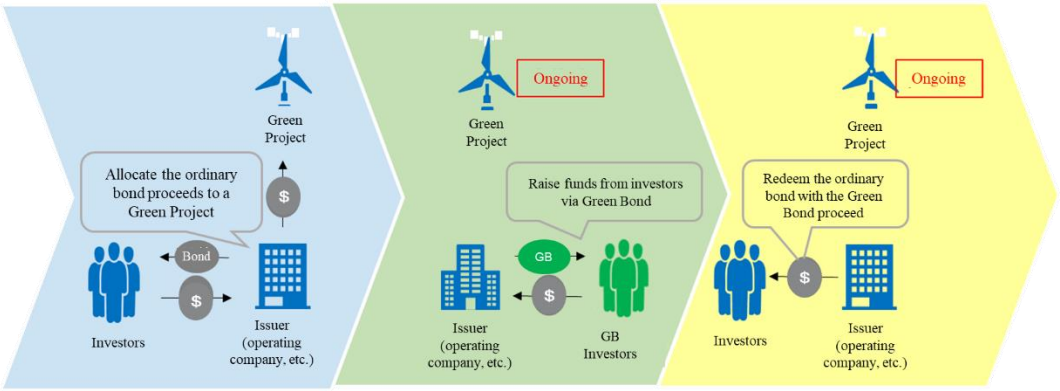
* Possible examples are not limited to the followings:

- Cases where the Green Bond proceeds are allocated to repay (refinance) loans related to Green Projects.

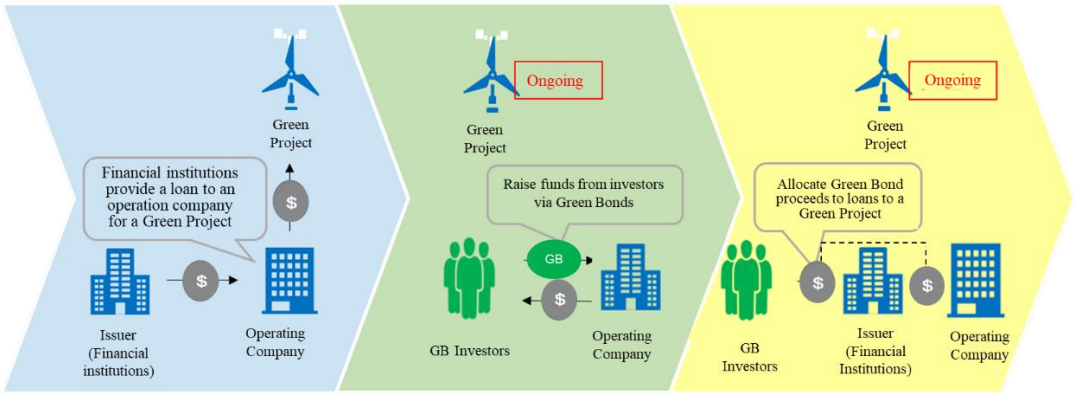


- Cases where new Green Bond proceeds are used to redeem a bond that has been issued to finance existing or completed Green Projects at maturity.

  * An example of a completed Green Project may include the construction of green buildings.



- Cases where financial institutions allocate Green Bond proceeds as a resource for existing loans linked to Green Projects.



1-2. Process for Project Evaluation and Selection

[Communication with investors in advance on the process for project evaluation and selection:]

(i) The issuer of a Green Bond should clearly communicate to investors by providing information in advance regarding the following: (1) the environmental sustainability objectives that the issuer intends to achieve through the Green Bonds; (2) the criteria for determining the eligibility of Green Projects based on the environmental sustainability objectives described above; (3) the process by which the issuer determines how the Green Projects fit the criteria; and (4) the process by which the issuer identifies, mitigates and manages the perceived environmental and social risks associated with the relevant project(s).

(ii) When individual Green Projects to which Green Bond proceeds will be allocated are already determined, the projects to which the proceeds are allocated can be assumed to have been already evaluated and selected, the establishment of the criteria described above may be unnecessary. On the other hand, issuers should provide investors with information in advance regarding the following: (1) the environmental sustainability objectives that the issuers intend to achieve through the Green Bonds; (2) the evaluation and selection process by which the issuer determines the relevant projects; and (3) the process by which the issuer identifies, mitigates and manages the perceived environmental and social risks associated wih the relevant project(s).

(iii) In contrast, when individual Green Projects to which Green Bond proceeds are allocated are not determined (e.g., (1) in cases where a corporation or a local government issues a Green Bond to raise funds for Green Projects in the relevant business and project category and (2) in cases where financial institutions raise funds for investments and loans for a large number of Green Projects, etc.), issuers should establish criteria for determining the eligibility of Green Projects based on the objectives, the evaluation and selection process by which the issuer determines how the Green Projects fit the criteria, as well as the process by which the issuer identifies, mitigates and manages the perceived environmental and social risks associated with the relevant project(s), and provide investors with such information in advance.
When individual Green Projects are not been determined, the issuer may also consider establishing a common criteria and process for evaluating and selecting projects for Green Bonds, Green Loans and or other financial instruments, as well as the process by which the issuer identifies, mitigates and manages the perceived environmental and social risks associated with the relevant project(s).

1) Environmental objectives

(iv) Environmental objectives are the environmental benefits that the issuers intend to achieve through the issuance of Green Bonds, such as climate mitigation and adaptation and the conservation of biodiversity.

2) Criteria

(v) Criteria provides the basis for evaluating and selecting eligible Green Projects in light of the environmental sustainability objective. For instance, if climate mitigation or adaptation is the main environmental objective, Green Projects that reduce GHG emissions such as renewable energy projects would be considered for the use of proceeds.

(vi) The following are the examples of the evaluation and selection criteria for Green Projects. It is encouraged for issuers to also communicate to investors, in advance, any environmental standards or certifications that they will refer to in evaluating and selecting Green Projects.

<Examples of "criteria" for the evaluation and selection of Green Projects>

*These are examples only and not limited to the followings.

- Projects falling under categories specifically given as examples for the use of proceeds in the GBP or in the Guidelines.
- Projects for renewable energy not falling under the category of projects with significant negative impacts on the environment and society as specified in the Equator Principles.
- Projects falling under the category of projects that build energy efficient buildings eligible for certification by environmental certification schemes such as LEED, CASBEE, and BELS.

3) Process

(vii) The process for evaluation and selection of Green Projects refers to, for example, the basis for how issuers determine why certain projects can provide environmental benefits appropriately in light of the objectives and criteria for the use of Green Bond proceeds, how and by whom the above criteria are applied and used to determine whether Green Projects are eligible in light of the environmental objectives (which division actually conducts the evaluation and selection, and determines the eligibility).

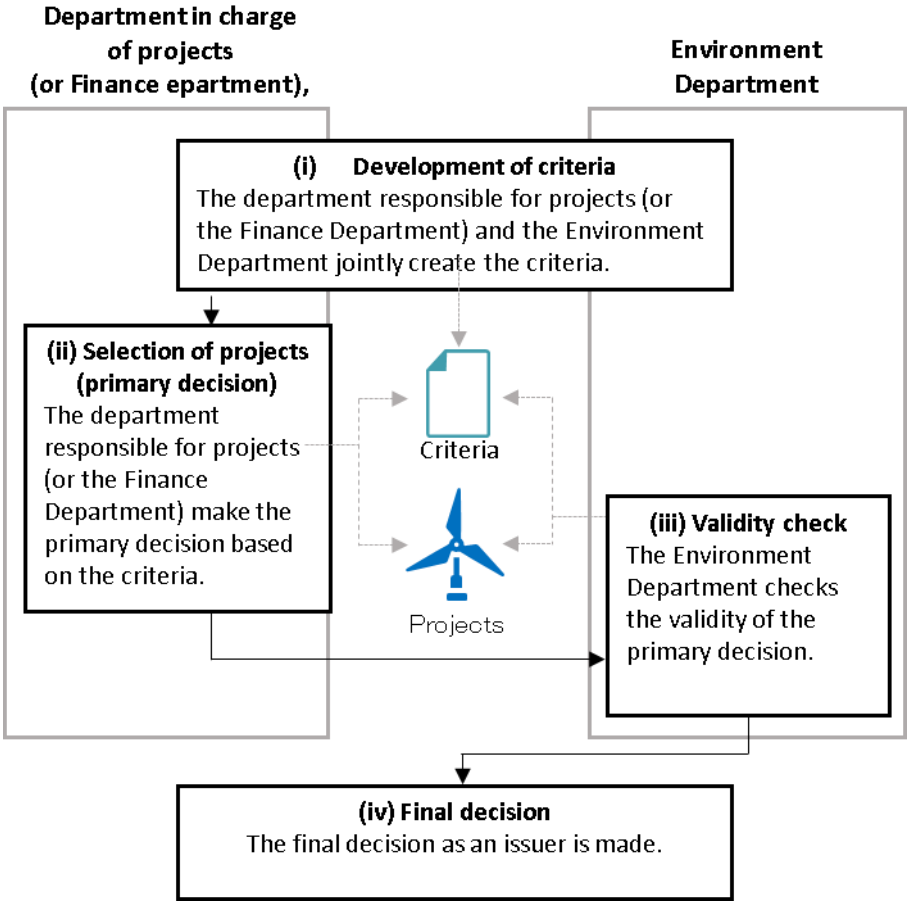
(viii) It is recommended that internal departments with environmental expertise, such as environment related departments, or external institutions are involved in the evaluation and selection process of Green Projects to ensure suitability from an environmental point of view.

(ix) The following are examples of project evaluation and selection process for Green Projects:

<An example of a decision-making process>

* This is an example only and not limited to the following.

- An internal department responsible for the projects (or the Finance Department) and the Environment Department jointly develop the criteria. After the department responsible for the projects (or the Finance Department) uses the criteria to make the primary decision on project eligibility, the Environment Department checks the validity of the primary decision before making the final decision as the company.



[Incorporation into overarching goals, strategies, etc.]

(x) Issuers are encouraged to position their environmental objectives, criteria and information on their processes in the context of their overarching environmental sustainability goals, strategies, policies (e.g. medium-term management plan, sustainability/ESG strategy) and/or other related processes when communicating to investors. Issuers are also encouraged to provide explanation on the information above to investors upon their request after the issuance.

[Alignment with related standards and certifications, and information disclosures]

(xi) In addition to the eligibility of the project categories for Green Projects, when setting exclusion criteria such as requirements to eliminate associated negative risks of a Green Project, issuers are encouraged to disclose relevant information and environmental standards and certifications referenced (e.g., Annex 1 of the Guidelines, taxonomies, other environmental

standards and certifications). Issuers are also encouraged to explain how the actual Green Project is aligned with the referenced environmental standards and certifications, when and if issuers refer to them. In addition, when obtaining external certifications, issuers are encouraged to explain the expected environmental benefits to be achieved, rather than just satisfying the certification requirements.

[Processes related to the identification, mitigation, and management of environmental and social risks]

(xii) The process of identifying, mitigating, and managing associated environmental and/or social risks refers to the identification, mitigation, and management of significant negative environmental and/or social impacts as well as the environmental and social risks associated with the implementation of the project[18].

(xiii) For example, hydropower generation above a certain scale may have associated negative impacts such as land modification, etc (see Annex 1). These negative impacts could result in the loss of the environmental benefits and the value of Green Projects, and the process for identifying and managing the potentially significant environmental and social risks of Green Projects should be explained to investors in advance. Issuers are also encouraged to have a process in place to identify mitigation measures for the above-mentioned risks. These mitigation measures may include the implementation of a clear and appropriate trade-off analysis and necessary monitoring when the issuer assesses the potential risks to be significant.

1-3. Management of Proceeds

(1) Management of proceeds

[General information]

(i) The issuer should track and manage the entire amount of Green Bond proceeds or the amount equivalent to these net proceeds in an appropriate manner to ensure that the funds raised are allocated to Green Projects properly. These tracking and managing activities should be controlled by the issuer's internal process.

(ii) As long as the Green Bonds are outstanding, the issuer should conduct periodical checks (at least yearly) to ensure that the amount allocated to Green Projects is equal to or greater than the amount raised by the issuance of Green Bonds or that the sum of the amount allocated to Green Projects and the amount of the unallocated proceeds matches the total amount of Green Bond proceeds. If any of the proceeds remains temporarily unallocated, the issuer

[18] Practices, etc. differ between Japan and overseas (e.g., labor practices), and the policies that are taken for granted in Japan may not be the same overseas. Accordingly, it is important to carefully explain how to identify, manage, and mitigate the risks, taking into account of overseas perspectives as well.

should explain to investors how it intends to manage the balance of such unallocated funds and endeavor to promptly allocate such funds to Green Projects[19].

(iii) Green Bond proceeds may be managed per bond (bond-by-bond approach) or on an aggregate basis for multiple bonds (portfolio approach).

(iv) In order to verify the method of internal tracking of Green Bond proceeds and the allocation of such proceeds, it is recommended that the management of proceeds by the issuer be complemented by an external auditor or other third party (see 2. Key Recommendations for details).

[Methods for the tracking and management of proceeds]

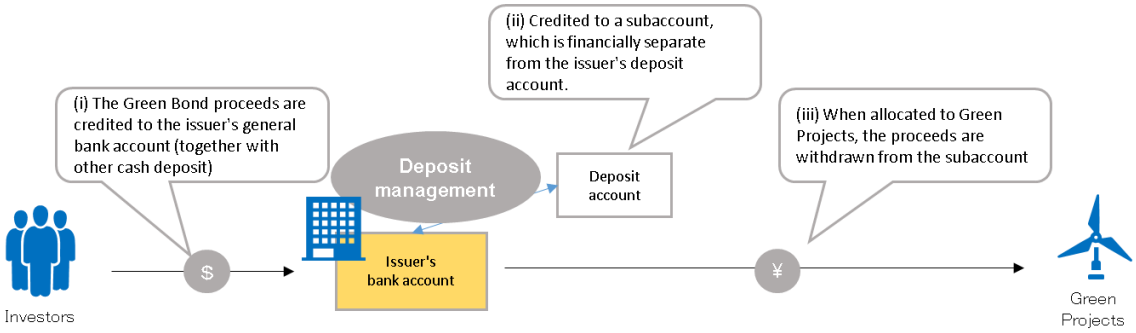
(v) Possible methods for the tracking and management of proceeds include the following:

[19] For instance, financial institutions often provide multiple loans for Green Projects for which Green Bond proceeds are to be used and the maturities of such loans do not match the maturity of Green Bonds. As a result, when a loan is repaid, the loan balance will be smaller than the amount of funds initially raised by the issuance of Green Bonds. In this case, adjustments will become necessary such as reallocating Green Bond Proceeds to a different new Green Project.

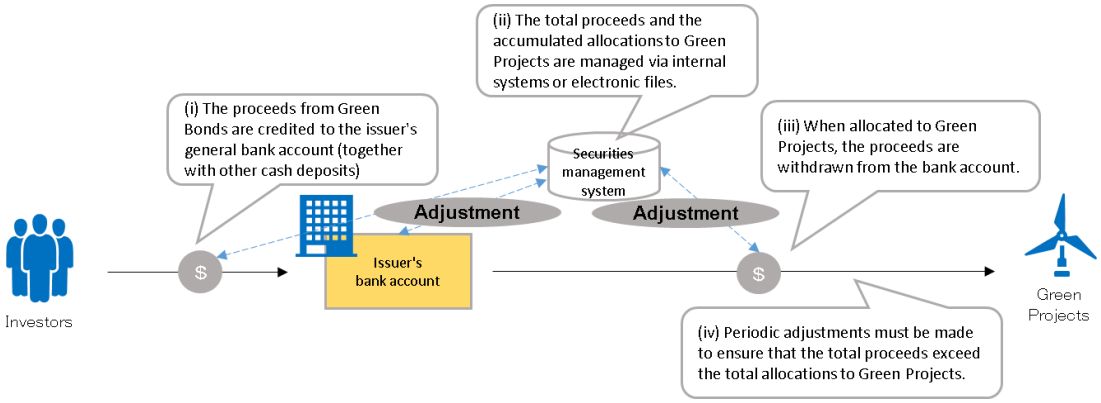
< Examples of possible methods for the tracking and management of proceeds>

* These are examples only and not limited to the followings:

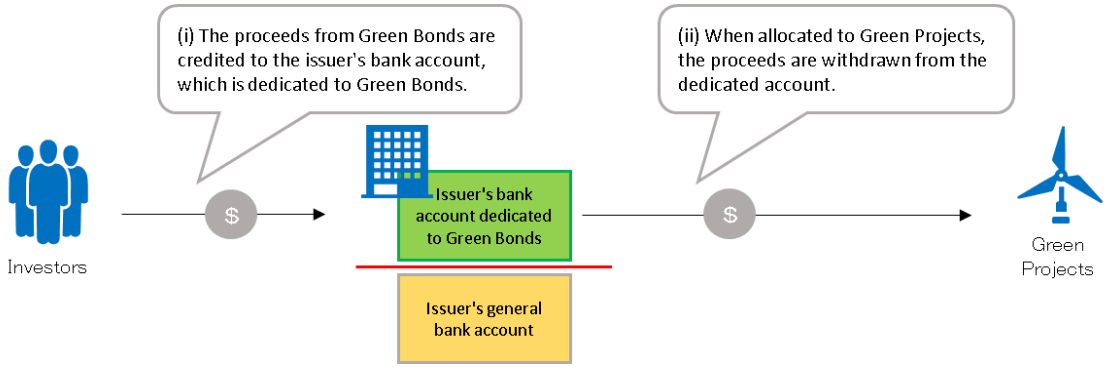
- The Green Bond proceeds are credited to a subaccount that is financially separate from other accounts, and the proceeds are withdrawn from this account when allocated to Green Projects.



- Manage the total proceeds and the accumulated allocations to Green Projects via internal systems or electronic files and periodically adjust to ensure that the latter exceeds the former.



- The Green Bond proceeds are credited to a separate account and managed separately from other business funds. When allocating the proceeds to Green Projects, the proceeds are taken out from the said separate account.



[Communication with investors in advance on methods for the tracking and management of proceeds]

(vi) Issuers should communicate to investors, in advance, on how Green Bond proceeds will be tracked and managed.

(vii) Issuers are r**e**commended to appropriately keep evidence documents that demonstrate how the Green Bond proceeds have been tracked and managed.

(2) Management of unallocated proceeds

[Timely allocation of proceeds]

(viii) It is recommended to allocate the Green Bond proceeds to Green Projects in a timely manner and that issuers must avoid the non-allocation of proceeds to Green Projects unless on reasonable grounds.

[Communication with investors in advance on methods to manage unallocated proceeds]

(ix) Issuers should communicate to investors, in advance, on how unallocated Green Bond proceeds will be managed, such as when Green Projects to receive the Green Bond proceeds have not been determined, or when such Green Projects have been determined but the proceeds have not been allocated because the allocation timing has not yet arrived.

[Methods for the management of unallocated proceeds]

(x) It is recommended that issuers manage unallocated Green Bond proceeds as an asset with high liquidity and safety such as cash, cash equivalents, or short-term financial assets.

(xi) As a particularly advanced example, unallocated proceeds were deposited into a bank account with sound environmental business strategies in order to reflect the green preference of investors. This would be meaningful in instances where investors have a strong preference for their assets to be invested in ESG-related or green financial products.

1-4. Reporting

[Disclosures on the status of the use of proceeds post-issuance]

(i) Investors invest in Green Bonds because they expect that their funds will be allocated to Green Projects that have environmental benefits. Accordingly, its impact expressed in the reporting is an important element in the investor's ongoing monitoring of the effectiveness of investments. Moreover, for an issuer to claim financing through Green Bonds, and to gain public recognition and acceptance as such, it is necessary to ensure transparency. For these reasons, issuers should publicly disclose up to date information on the use of Green Bond proceeds post-issuance, and make the information easily accessible to investors (such as on the issuer's website)[20]. The above disclosures, for example, may be done by making information available on the issuers' official websites.

[Timing of Disclosures]

(ii) Issuers should disclose, up to date information on the use of proceeds, at least annually and in case of material developments, until full allocation. Issuers should disclose such information in a timely manner even after all the proceeds are allocated in case of material developments. Material developments include, but is not limited to, the sale of the asset or project for which the proceeds are used, a serious accident in the project or the occurrence of an event that affects the green characteristics of the project.

[Methods and contents of disclosures]

(iii) Information disclosed should include the followings:

<Contents>

- A list of the Green Projects to which Green Bond proceeds have been allocated
- A brief description of each Green Project (including up to date progress)
- The amount allocated to each Green Project
- The expected environmental benefits of each Green Project
- In case where there are unallocated Green Bond proceeds, the amount or share of unallocated proceeds, the expected timing of allocation, and how the unallocated proceeds will be managed until allocation

(iv) If Green Bond proceeds have been allocated to the refinancing of existing projects, it is recommended that disclosure includes: 1) the approximate amount (or share) of proceeds allocated to refinancing, and 2) a list of the Green Projects (or the project categories) refinanced.

(v) While it is recommended to disclose (iii) and (iv) on a project-by-project basis, if there are

[20] Information disclosure as specified in the Guidelines does not unconditionally ensure compliance with financial laws, rules of the stock exchange, or rules of self-regulatory organizations. Regardless of the disclosure specified in the Guidelines, information must be disclosed according to the requirements of the above mentioned laws or rules.

confidentiality agreements, competitive considerations, or a large number of underlying projects that limit the disclosures of details, information may be presented in generic terms or in an aggregated portfolio. (For example, provide disclosures by project category, such as on, wind power generation projects, projects to introduce high-energy efficient equipment, or projects for the construction and management of waste recycling-related facilities.)

(vi) Other specific ways of disclosures may include those described in Annex 3.

[Indicators and methods for calculating environmental benefits][21]

(vii) On disclosures regarding the expected environmental benefits of projects, issuers should use appropriate indicators while ensuring consistency with environmental sustainability objectives and criteria for Green Projects, as specified in "2. Process for Project Evaluation and Selection," and the characteristics of Green Projects.

(viii) On disclosures regarding the expected environmental benefits of projects, from the point of transparency, it is important to disclose expected or actually achieved environmental benefits.

(ix) On disclosures regarding the expected environmental benefits of projects, issuers are recommended, where feasible, to use quantitative indicators and disclose information on underlying methodologies and/or assumptions with the indicators[22]. With both international and domestic investors increasingly calculating the greenhouse gas emissions of their own investments and aiming to achieve net zero emissions, the quantification of environmental benefits has also become important from the investor perspective. When quantification is difficult, external certifications, such as LEED, CASBEE, BELS, FSC, MSC, or ASC, obtained through Green Projects may be considered as qualitative indicators.

(x) Other specific examples of indicators may include, but are not be limited to, those listed in Annex 1.

(xi) Specific examples of methodologies for the calculation of environmental benefits when using quantitative indicators may include those explained in Annex 2.

2. Key Recommendations

2 -1 Green Bond Frameworks

[General information]

(i) From the perspective of transparency, issuers should explain the alignment of the Green Bond or Green Bond programme with the four core components (Use of Proceeds, Process for Project Evaluation and Selection, Management of Proceeds, and Reporting), in a Green Bond

[21] 'Handbook – Harmonized Framework for Impact Reporting' and 'Guidance Handbook June 2021' by ICMA provides guidance on indicators and calculation methodologies for expected environmental benefits.

[22] Disclosure of methodologies and/or assumptions will also enable investors to make evaluations taking into account regional characteristics.

Framework or in their legal documentation, such as the prospectus. Issuers should make these documents available in a readily accessible format to investors (such as on the issuers' website). Such a framework or legal documentation contribute to issuers providing the market with necessary and sufficient information on the eligibility of Green Bonds to make investment decisions.

(ii) In their Green Bond Framework, it is recommended that issuers summarize relevant information in the context of their overarching sustainability strategy. This may include reference to the five high-level environmental objectives of the GBP (climate change mitigation and adaptation, natural resource conservation, biodiversity conservation, and pollution prevention and control). Issuers are also encouraged to disclose any environmental standards and certifications (Annex 1 of the Guidelines, taxonomies, other environmental standards and certifications) referenced in project selection. Issuers are also encouraged to explain how the actual Green Project is aligned with the referenced environmental standards and certifications, when and if issuers have referred to them. In addition, when obtaining external certifications, issuers are encouraged to explain the environmental benefits to be achieved with the certification, rather than just meeting the certification requirements.

(iii) For climate change mitigation projects, when explaining to the market a climate transition strategy aligned with the Paris Agreement, the issuer is encouraged to refer to the four key elements of Climate Transition Finance and clearly indicate the implementation as climate transition finance, in a framework or legal documentation such as the prospectus. For climate mitigation, using a framework such as the final report of the Task Force on Climate-Related Financial Disclosures (TCFD recommendations) to explain the overarching climate transition strategy of the issuer will also serve the interests of investors, which are increasingly taking into account the issuer's overall strategy when making investment decisions.

2-2 External Reviews

(1) General matters related to external reviews

[General information]

(i) Pre-issuance, it is recommended that issuers obtain external reviews to assess alignment of their Green Bond or Green Bond program and or Green Bond Framework with matters described above in 1-1 to 1-4.

(ii) Post-issuance, it is recommended that issuers obtain external reviews by external auditors and other third parties on the management of proceeds, to verify the internal tracking and allocation of funds from Green Bond proceeds to Green Projects.

(iii) There are a variety of types of external reviews, including Second Party Opinions (SPO),

Verifications, Certifications and Scorings/Ratings[23].

ICMA's "Guidelines for Green, Social, Sustainability and Sustainability-Linked Bonds External Reviews" (June 2022) provide descriptions for the following four types of external reviews.

A) Second Party Opinion (SPO)

An institution with environmental/ social/sustainability expertise that is independent from the issuer may provide a Second Party Opinion. The institution should be independent from the issuer's adviser for its green, social, sustainability and Sustainability-Linked 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. Any concerns on the institution's independence should be disclosed to investors.

B) Verification

Issuers can obtain independent verification against a designated set of criteria. Such criteria are those pertaining to environmental, social and sustainability, or, in the case of Sustainability-Linked Bonds explained in Chapter 3, to KPI and SPTs.

C) Certification

Issuers can have its bond or associated bond framework, the use of proceeds, or the KPI or SPTs, certified against external green, social or sustainability standards or labels. Alignment with evaluation criteria of the standard or label is normally tested by a qualified third party.

D) Scoring/Rating

Issuers can have its bond, or associated bond framework, or a key feature such as Use of Proceeds, selection of KPIs, calibration of the level of ambitiousness of SPTs, evaluated or assessed by third parties, such as specialized research providers or rating agencies, according to an established scoring/rating methodology.

(iv) Such reviews can be particularly useful in the following cases:

* Possible examples are not limited to the following:

- Cases where Green Projects designated for a Green Bond include those that have negative environmental and social impacts in addition to environmental benefits, and where an issuer can obtain an objective evaluation of the appropriateness in allocating proceeds to such projects.
- Cases where an issuer can obtain an objective evaluation of the appropriateness of the criteria or the appropriateness of the decisions regarding the evaluation and selection of Green Projects based on such criteria, when expertise existing within the issuer's organization is insufficient.
- Cases where an issuer can obtain an objective evaluation of the appropriateness of the environmental benefit calculation method developed by the issuer when the Green Projects to which the proceeds will be allocated are

[23] The classification of external reviews and the contents thereof are described with reference to the "Guidelines for Green, Social, Sustainability and Sustainability-Linked Bonds External Reviews" (February 2021) by ICMA.

relatively unique and therefore, is lacking in an existing framework for calculating the environmental benefits of the projects.

- Cases where an issuer can obtain reviews by a third party evaluation institution to assist in the understanding of Green Bonds if and when anticipated investors are from overseas and expected to be unfamiliar with Green Projects and related information in Japan.

(v) In cases where an external review of the entire Green Bond framework was obtained in the past, the issuer may not have to obtain an external review again when issuing a new Green Bond under the same framework. However, careful consideration may be necessary, as approaches to considering the appropriateness of the schemes of Green Projects and Green Bonds and or the evaluation criteria of external reviewers may have changed since the last review. For example, an external review may not be necessary if an SPC that exclusively conducts Green Projects, which has obtained a review on the environmental benefits of its projects, is to issue multiple Green Bonds for the same type of projects. However, when an issuer does not obtain an external review, investors and other market participants may request that the issuer explain the appropriateness of the Green Bond framework with sufficient transparency.

[Issuer disclosure on external reviews]

(vi) Issuers should disclose documents relating to the review results, when and if issuers obtain external reviews for their Green Bonds. [24]

(2) Code of conduct for external reviewers

External reviewers should follow the following codes of conduct when giving reviews.

[Ethical standards as professionals[25]]

(i) Integrity

External review providers must act with integrity at all times and must not engage in the preparation and or disclosure of reviews based on reports or information that they recognize to be:

- Information that contains materially false or misleading statements
- Information that contains statements or information that have been prepared without due caution required in the performance of duties
- When any omission or obfuscation of necessary information will cause misunderstanding, information that omits or obfuscates such information

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[24] As part of the disclosure of information on the issuance of Green Bonds, it may include disclose to the database for the issuance list of Green Bonds provided by ICMA. (https://www.icmagroup.org/green-social-and-sustainability-bonds/green-social-and-sustainability-bonds-database/#HomeContent)

[25] The ethical standards of external reviewers as professionals are based on the "Code of Ethics for Professional Accountants" established by the International Ethics Standards Board for Accountants of the International Federation of Accountants and the corresponding JICPA Code of Ethics established by the Japanese Institute of Certified Public Accountants.

(ii) Fairness

External review providers should avoid holding preconceptions, avoid conflicts of interests, avoid succumbing to undue influence from others and maintain fairness at all times. As professionals, external review providers should refuse to provide a review if and when requested to distort facts or to deliver a biased review for the purpose of justifying a predetermined conclusion.

Maintaining fairness requires ensuring objectivity in the judgment of business operations. More specifically, external reviewers should be independent from, and should be a third party to, the issuer. Independency/impartiality should be judged based on personal and or capital relationships. For example, an external review is not considered to be independent or impartial in the following cases:

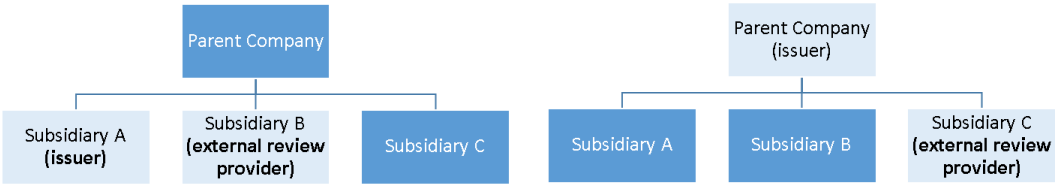
<Examples where independency/impartiality is not ensured >

* Possible examples are not limited to the following:

<Capital relationships>

- Cases where an issuer and an external review provider are subsidiaries of the same parent company

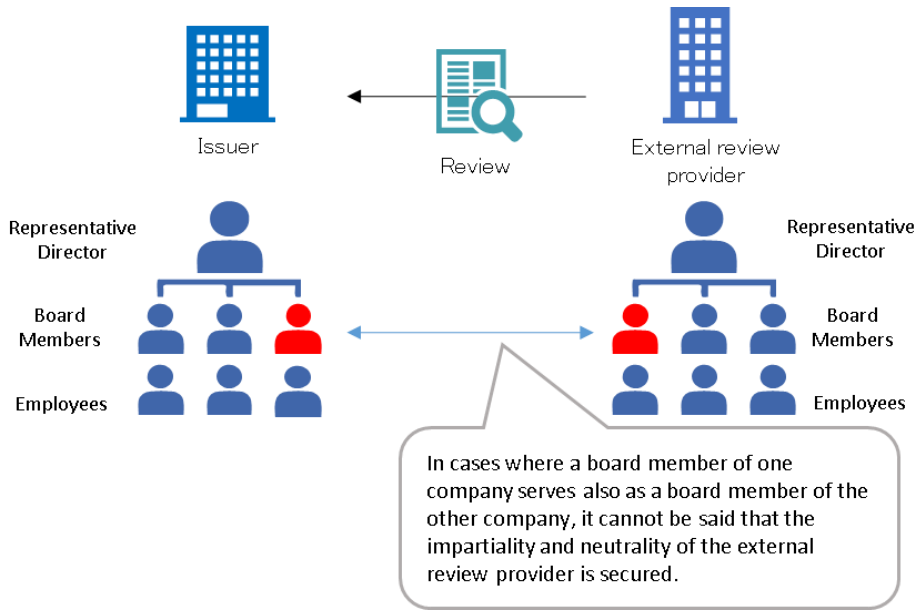
- Cases where an issuer is the parent company of an external review provider (subsidiary)



<Personal relationships>

- Cases where a board member or one in a similar position* of one company (issuer) also serves as a board member of the other company (external reviewer)

*A board member or one in a similar position could include the representative director, auditor, executive, and or one in any other position with legal authority over the execution and or the auditing of operation and finances under corporate law, civil law, and or any other relevant law, regardless of title.



(iii) Abilities and due care as professionals

External reviewers need to maintain the level of abilities necessary to perform their duties when providing an external review in order to provide an appropriate external review.

External reviewers should adhere to requirements as professionals and perform their duties with due care.

External reviewers should ensure that any party working under their instructions is receiving appropriate training and supervision when performing their duties.

The following professional expertise is required of external reviewers.

- To understand and be up to date on relevant knowledge, including international market trends and the most recent professional practices in their specialist areas, to always endeavor to improve their skills, and to be equipped with the latest specialist knowledge.
- To have the relevant expertise, for the type of external reviews they provide and for the type of Green Projects for which they provide a review.
- To employ or to ensure the participation of other specialists in areas where they do not have sufficient expertise. It is not necessarily required for one external reviewer to evaluate all aspects of a particular Green Bond. It is possible for more than one external reviewer to review different aspects of a Green Bond based on the respective expertise of each provider.

The professional expertise desirable of external reviewers includes the following:

<Examples of expertise>

* Possible examples are not limited to the following:

1) When reviewing the appropriateness of the Green Projects to which proceeds will be allocated, the appropriateness of the evaluation and selection process of the Green Projects and the appropriateness of environmental benefits

   Expertise on criteria to determine the existence of (or lack thereof) environmental benefits, expertise on indicators to be referred to when verifying the method to quantify environmental benefits, and expertise on environmental assessment and environmental certifications

2) When reviewing the appropriateness of the management and allocation of proceeds

   Expertise in financial and accounting audits

(iv) Duty of confidentiality

External review providers must not disclose to others or use for the benefit of themselves or third parties any information that has come into their possession in the course of their duties without any justifiable reason. With respect to their compliance with the duty of confidentiality, external reviewers should establish, publish and or provide their customers with policy and measures concerning the protection of customer information.

(v) Actions as professionals

External reviewers should be aware of their position as professionals, adhere to the requirements and expectations of professionals and should not take any action that will harm the credibility of or bring disrepute to external reviewers in general.

[Requirements of external reviewers as an organization]

(vi) External reviewers should have a sufficient organization structure to appropriately undertake external reviews and should have predetermined methodologies and procedures in place to conduct external reviews.

(vii) External reviewers should employ a reasonable number of people who have professional experience and qualifications necessary to cover the areas subject to the external reviews to be conducted.

(viii) When using liability insurance concerning specialist areas, external review providers should note the coverage scope of such insurance.

[Matters that should be evaluated by external review providers]

(ix) External reviewers should evaluate the following content dependent on the type of external review.

1) Intended environmental benefits of the Green Project for which the funds are to be used
2) Alignment with the four elements expected of Green Bonds
3) Potential significant environmental and social risks (negative effects) associated with Green Projects as identified by the issuer, and the process for identifying, mitigating and managing them

(x)An SPO can also include an assessment of the issuer's overarching objectives, strategy, and processes relating to environmental and social sustainability.

[Information which should be included in documents and materials concerning external review results]

(xi) External reviewers should include a general description of the purpose of an external review, scope of the review, qualifications of the persons who conduct the external review and their expertise as external reviewers. At the very least, they need to show where such information is available. For instance, it is recommended that external reviewers clearly demonstrate their expertise in documents and materials concerning review results by including statements such as the following.

<Examples of description concerning the expertise of external reviewers>

* Possible examples are not limited to the following:

<Expertise>

"Our company has offered environmental evaluation services for about ● years and has solid expertise in this field. "

(xii) External reviewers should include, in documents and material concerning their review results, a statement on their independence from the issuer and their policy on conflicts of interest. At the very least, they need to show where such information is available.

(xiii) There are various types of external reviews. Even if they have the same name, what they evaluate or the criteria they use for evaluation may differ. To assist review users in the understanding of its contents, external reviewers should clearly explain the definitions they use and their analytical approach and methodologies including the evaluation criteria applied to respective items in the documents and materials concerning their review results. For instance, this may include the following.

<Examples of the description of information concerning external reviews>

* Possible examples are not limited to the following:

This review evaluates the following aspects of the Green Bond:

(i) Pre-issuance review of Green Bonds		
Evaluation Aspects	Target	Evaluation Criteria
- The evaluation of the appropriateness of Green Projects to which the Proceeds will be specifically allocated.	○	Evaluation criteria of the company[26]
- The evaluation of the appropriateness of the criteria for evaluating/selecting Green Projects to which the Proceeds will be allocated and the implementation system for evaluating/selecting Green Projects based on such criteria.	○	Evaluation criteria of the company
- The evaluation of the appropriateness of specific methods to track and manage the proceeds from Green Bonds.		
- The evaluation of the appropriateness of the expected environmental benefits (or actual environmental benefits in the case of refinancing) of Green Projects (including the appropriateness of the methods for calculating environmental benefits and preconditions for the calculation).	○	Evaluation criteria of the company
(ii) Post-issuance Review of Green Bonds		
Evaluation Aspects	Target	Evaluation Criteria
- The evaluation of whether the management of the Green Bond proceeds and the allocation of the proceeds to Green Projects were executed properly by using the methods specified by the issuer before the issuance of the Green Bonds.		
- The evaluation of whether the Green Projects to which the Green Bond proceeds were allocated have actual environmental benefits and if they were calculated properly by using the methods specified by the issuer before the issuance of Green Bonds.		

(xiv) External reviews should have a conclusion/output, including the limitations of assesments made in external reviews. At minimum, they need to show where such information is available.

[26] While it is sometimes difficult to disclose detailed evaluation “criteria”, it is recommended to clearly state what type of criteria was used as much as possible.

Chapter 3 Sustainability-Linked Bonds

Section 1 Overview of Sustainability-Linked Bonds

1. What are Sustainability-Linked Bonds?[27]

Sustainability-Linked Bonds are a collective term for bonds whose financial and structural characteristics may vary depending on the achievement of a set of objectives related to sustainability/ESG in the future set in advance by an issuer, such as a company or a local government. The issuer will explicitly state (in bond disclosures, etc.) that they will act to achieve sustainability-related objectives within a predetermined time horizon.

Whether the issuer's pre-established sustainability/ESG-related objectives are achieved will be (1) measured by pre-established key performance indicators (KPIs), and (2) evaluated against pre-established targets (SPTs: Sustainability Performance Targets).

In other words, KPIs are indicators to measure the achievement of targets, and SPTs set the level of achievement for the indicator.

2. Benefits of Sustainability-Linked Bonds

(i) Benefits to Issuers

Benefits for issuers of issuing Sustainability-Linked Bonds include the followings:

1) Improve corporate sustainability and dialogue with investors

Working on issuance of Sustainability-Linked Bonds may lead to the development and implementation of sustainability strategy, risk management, and governance systems within the organizations through establishing and aiming at ambitious KPI/SPTs. This also helps issuers satisfy the ESG information disclosure requirement by the Task Force on Climate-related Financial Disclosures (TCFD). These developments will lead to improve the issuer's ESG evaluations in the mid-to-long term and thus possibly enhance its corporate value. Also, if selection of KPI and calibration of SPTs are ambitious and credible enough, that may distinguish evaluations of issuers' sustainability from those of their peers. Moreover, this can lead to strengthening sustainability management beyond the company itself and throughout the supply chain as a result of addressing

[27] The use of proceeds from Sustainability-Linked Bonds is not a determining factor in classifying SDG bonds, as the proceeds are intended to be used for general purposes. It should be noted not to confuse SLBs with Sustainability Bonds, as some bonds may include both use-of-proceed bonds and Sustainability-Linked Bonds.

ESG issues in its supply chain.

Furthermore, dialogue with investors acquired through the issuance of Sustainability-Linked Bonds may lead to the further improvement of corporate sustainability.

2) Incentives in terms of interest rate conditions for improving sustainability performance

Sustainability-Linked Bonds incorporate incentives, such as interest rates that fluctuate in conjunction with SPTs, in order to motivate issuers to improve their sustainability performance. An issuer may be able to raise funds on relatively favorable terms from investors with preference for ESG investments by improving their sustainability management.

3) Strengthen a funding base by acquiring new investors and stabilize funding through dialogue with investors

Diversifying a funding base is an effective means for issuers to reinforce their fundraising strategies. Sustainability-Linked Bond may provide issuers with an opportunity to strengthen their funding base by acquiring new investors who value investments that help to tackle environmental problems such as climate change. In addition, through dialogue with investors, mutual understanding of each other's views and initiatives may be deepened, leading to stable funding.

4) Enhance corporate reputation

By financing through Sustainability-Linked Bonds, issuers can demonstrate commitment to ambitious sustainability goals and their proactive support for environmentally and or socially sustainable economic activities, which can lead to enhance their reputation.

(ii) Benefits to investors

Benefits for investors of investing in Sustainability-Linked Bonds include the followings.

1) Satisfy ESG investment requirements and enhance reputation

Some institutional investors are committed to a certain scale of ESG investment. For such investors, Sustainability-Linked Bonds clearly match this commitment and provide a stable cash flow, unless in the case of defaults. Moreover, investors that do not have such commitments can demonstrate support for environmentally and or socially sustainable economic activities, potentially enhancing their reputation while obtaining stable cash flows.

2) Achieve both investment returns and environmental and social impacts

By investing in Sustainability-Linked Bonds, investors can help issuers generate environmental and social impacts (listed below in '(iii) Environmental and Social Benefits') that contribute to creating a sustainable society through the provision of funds, while simultaneously gaining returns on their investments .

3) Motivate issuers to improve their sustainability performance

By linking interest rate conditions and sustainability performance, investors may motivate issuers to enhance their sustainability management over the term of the bond, which in turn may lead to the maintenance and improvement of the issuers' corporate value.

4) Enable engagement on ESG matters

Sustainability-Linked Bonds enable investors to engage more effectively with issuers on holistic environmental impacts through evaluating disclosed sustainability information such as environmental impacts and better understanding issuers' sustainability/ESG strategies. Such efforts will lead to a virtuous cycle of enhancing issuers' sustainability and improving investors' mid-to-long term investment returns, which in turn will generate environmental impacts through investment and realize a sustainable society.

(iii) Environmental and Social Benefits

Environmental and social benefits that can be achieved from the issuance of and investments in Sustainability-Linked Bonds include:

1) Contribute to global environmental conservation

The dissemination of Sustainability-Linked Bonds internalizes incentives for issuers to enhance and maintain sustainability management and expands private investments to environmentally and socially sustainable economic activities, thus contributing to the long-term substantial reduction in GHG emissions in Japan and beyond. Moreover, that can mobilize capital to other economic activities besides GHG emissions reduction that lead to the sustainable society, thereby contributing to the prevention of the degradation of natural capital, which is the foundation of long-term profits for companies.

2) Raise individuals' awareness of ESG investments

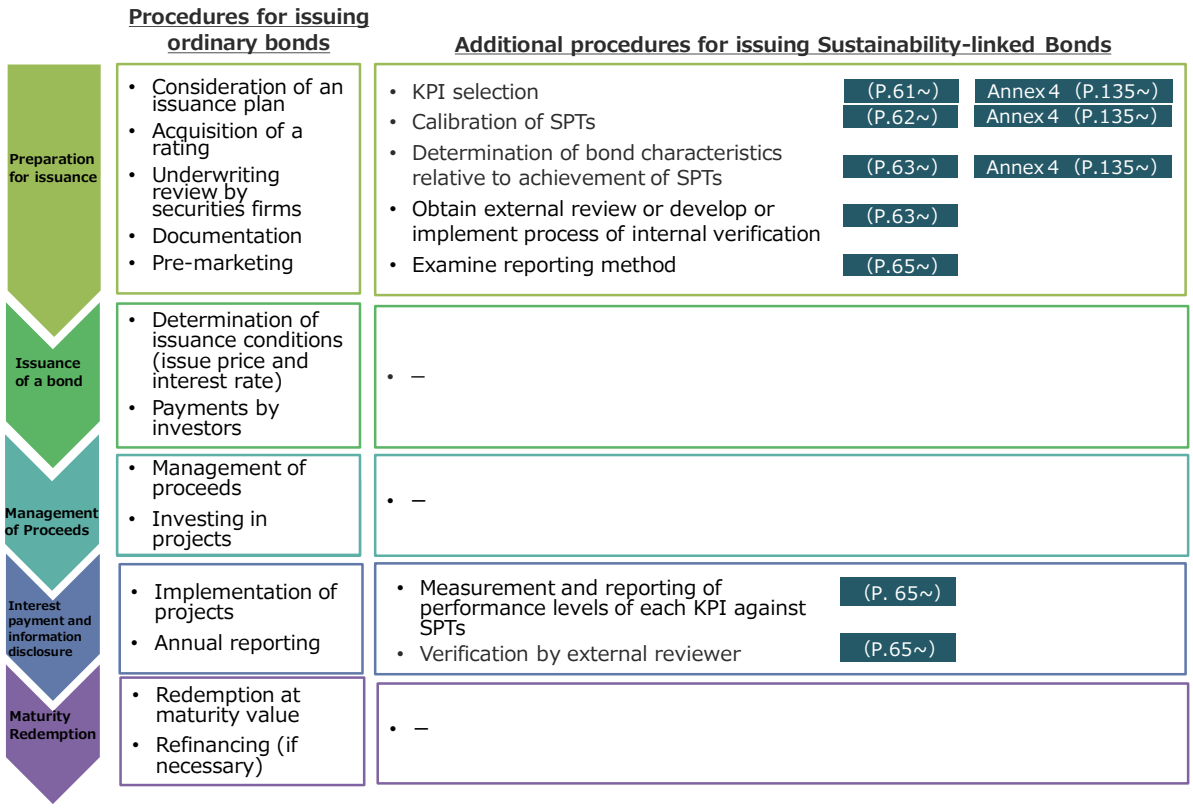
The dissemination of Sustainability-Linked Bonds will enhance individuals' awareness of ESG investments, which will in turn motivate institutional investors, who are the trustees of individuals' assets, to actively invest in Sustainability-Linked Bonds. Moreover, it will enhance individuals' interest in the use of own savings and investments, contributing to a greener and more sustainable economy as a whole.

3) Contribute to solving social and economic issues through promotion of Sustainability-Linked Bonds

Promoting projects related to economic activities contributing to the sustainable society through the dissemination of Sustainability-Linked Bonds may lower energy costs, strengthen energy security, reactivate the regional economy, and enhance resilience in the event of disasters.

3. Issuance flow of Sustainability-Lined Bonds

When companies, local governments, etc. issue Sustainability Linked Bonds, additional procedures are required alongside the normal procedures for issuing corporate bonds, municipal bonds, securitized products, etc. These are illustrated in the figure below.



*The page numbers in the figure refer to the relevant sections of these guidelines.

Section 2　Expected Elements of Sustainability-Linked Bonds and Examples of Possible Approaches

1. Selection of KPIs

[Importance of KPI Selection]

(i) Sustainability-Linked Bonds are intended to enhance the sustainability of the issuer within a predefined timeline. Specifically, it seeks to improve the sustainability of the issuer by linking issuer performance, as measured by one or more KPIs, to interest rate conditions, etc.

(ii) The credibility of Sustainability-Linked Bonds rests on the selection of KPI, and it is important to avoid the proliferation of KPIs that are not credible. KPIs should be material to the issuer's core sustainability and business strategies, the relevant environmental, social and governance challenges of the sector to which they belong, and should be under its management's control.

[Requirements for KPI]

(iii) KPIs should be:

- relevant, core and material to the issuer's overall business, and to have high strategic significance to the issuer's current and or future business operations;
- able to be measured or quantified based on a consistent methodology; and
- externally verifiable;
- able to be benchmarked, utilizing external indicators and definitions as much as possible to facilitate the assessment of the SPTs ambition.

[Disclosures and Communication to Investors]

(iv) It is encouraged, where possible, that issuers select as KPIs, those which have been previously disclosed in their past annual reports, sustainability reports, or other non-financial reports, so that investors can evaluate the historical performance of the selected KPIs. For KPIs that have not been disclosed in the past, the issuer should, to the extent possible, provide at least three years of externally verified data for the KPI.

(v) It is recommended that issuers clearly communicate to investors the selection criteria and processes for KPIs, and how the KPIs fit in to their sustainability/ESG strategy.

[Points of Attention in Selecting KPIs]

(vi) Technological progress and changes in the regulatory environment, etc. should also be taken into consideration in selecting KPIs.

(vii) KPIs should be clearly defined and include the scope or perimeter of its application as well as

the calculation methodology (e.g. For CO2 emissions intensity KPIs, a definition of its denominator, the baseline and so on). Where feasible, KPIs should be science-based or benchmarked against industry standards (e.g. SMART rule: Specific, Measurable, Attainable, Relevant and Time-bound).

2. Calibration of SPTs

[Importance of Calibration of SPTs]

(i) The process for calibration of one or more SPTs for each selected KPI is key to the structuring of Sustainability-Linked Bonds since it will be the expression of the level of ambition the issuer is ready to commit to, and considers realistic. The SPTs should be set in good faith with integrity, and issuers should disclose strategic information that may have a decisive impact on the achievement of the SPTs.

[Definition of Ambition]

(ii) SPTs should be ambitious, i.e.

- represent material improvements in the respective KPI and go beyond the "BAU: Business as Usual" trajectory;
- where possible, comparable to benchmarks or an external reference;
- be consistent with the issuer's overall sustainability/ESG strategies;
- be determined on a predefined timeline, set before the issuance of the bond.

(iii) The target setting exercise should be based on a combination of the benchmarking approaches listed below:

- the issuer's own performance over time,
  measurement track record on selected KPIs (where feasible, a minimum of three years) and where possible, with forward-looking guidance on the KPI;
- the issuer's peers etc.,
  where available and comparable, the relative positioning of the SPTs to the performance of its industry peers (average performance, best-in-class performance), or to current industry or sector standards; and
- reference to the science,
  reference to science-based scenarios and absolute levels (e.g. carbon budgets, etc.); official national, regional and international targets (Paris Agreement, net zero goals, SDGs, etc.); recognized BAT (Best Available Technology) or other proxies to determine relevant targets across environmental and social themes.

(iv) Specific examples of the SPTs may include those described in Annex 4.

[Disclosures on SPTs]

(v) The disclosures on SPTs should clearly deliver the following matters. In addition, it is encouraged that the following information be referred to in the context of the issuer's overall ESG objectives, strategies, policies or processes:

- timeline for achieving SPTs (including target observation date(s) / period(s), triggering events, and frequency of review of SPTs);
- where relevant, the verified baselines or science-based reference points selected to demonstrate improvement of KPIs, as well as the rationale for using such baselines or reference points (including dates and timeframes);
- where relevant, under what circumstances baseline recalculations or pro-forma adjustments will be made;
- where possible, how the issuer intends to achieve the SPTs, taking into account confidentiality and competitive considerations, the types of key measures/actions that are expected to improve performance in achieving the SPTs and the expected respective contribution, quantified as much as possible, for example, by providing a description of its sustainability/ESG strategy, supporting ESG governance and investment, business strategy, etc.; and
- other key factors beyond the issuer's direct control that may affect the achievement of SPTs.

[Relevance of KPI/SPTs and External Review]

(vi) When issuing a Sustainability-Linked Bond, it is recommended for the issuer to appoint (an)external reviewer(s) to confirm the alignment of the bond with the five core components listed in 1 - 5 (e.g., obtaining a Second Party Opinion).

(vii) In their pre-issuance Second Party Opinions, external reviewers are encouraged to assess the relevance, robustness and reliability of the selected KPI, the rationale and level of ambition of the proposed SPTs, the relevance and reliability of the selected benchmarks and baselines, and the credibility of the strategies outlined to achieve them, based on scenario analysis, where relevant.[28]

(viii) Post-issuance, if there is a material change to the parameter, KPI methodology, or the calibration of SPTs, issuers are encouraged to obtain an assessment of these changes by an external reviewer.

(ix) In addition, external reviewers providing the assessment are encouraged to disclose its credentials and relevant expertise and clearly indicate the scope of the review conducted.

[Internal review and prior explanation and report to investors]

(x) If a Second Party Opinion is not sought, it is recommended for issuers to establish or develop internal expertise to verify the methodologies of measuring KPIs. The issuer should throughly

[28] However, where no benchmark exists or performance criteria regarding the issuer are not clear, obtaining a second party opinion prior to issuance is particularly encouraged.

document such internal expertise, including related internal processes and expertise of their staff. This documentation should be communicated to investors.

3. Bond Characteristics

[Link with interest rate conditions, etc.]

(i) A Sustainability-Linked Bond aims to improve the sustainability of an issuer, and therefore, the financial and/or structural characteristics of the bond can vary depending on whether the selected KPIs achieve their predefined SPTs. In other words, a Sustainability-Linked Bond will need to include a financial and/or structural impact if there is a trigger event(s).

(ii) The potential variation of the coupon is the most typical example, but other financial and/or structural characteristics of Sustainability-Linked Bonds can be considered. In any case, it should serve as a sufficient incentive for issuers to improve their own sustainability.

< Example of characteristics to be linked >

* Possible examples are not limited to the followings:

- The interest rate will be lowered if the issuer achieves the pre-set SPTs, or raised if it does not achieve them.
- The redemption price will be raised if the issuer fails to achieve the SPTs or -the redemption price will be raised if the issuer fails to achieve the SPTs, or lowered if successful.
- An early redemption option will be given if the issuer achieves SPTs.
- If the issuer fails to achieve the SPTs, it will donate, to initiatives that contribute to improving social sustainability, the equivalent of an interest rate that is to be raised when the issuer fails to achieve the SPTs or that is to be lowered when the issuer achieves them.
  * In the above donation case, it is also important to ensure transparency by confirming whether the activities of the recipient generate positive environmental and social impact. In addition, contractual arrangements to ensure effectiveness of the donation are also important.

(iii) The variation of the financial and/or structural characteristics of the bonds should be commensurate and meaningful relative to the original bond financial characteristics.

[Disclosures of information on bonds]

(iv) Information on the definition of KPIs and SPTs (including calculation methodologies), as well as changes in the financial and structural characteristics of Sustainability-Linked Bonds, should be included in the bond documentation.

(v) Issuers should also explain fallback mechanisms in cases where the SPTs cannot be measured or observed in a satisfactory manner. Where necessary, issuers may consider including in the bond

documentation, consideration of potential exceptional events (such as significant M&A activities) or extreme events (including substantial changes in regulations) which may substantially impact the calculation of the KPI, instate a restatement of the SPT and or pro-forma adjustments to scope or baselines of the KPIs.

(vi) Sustainability-Linked Bonds may contain highly confidential information and should be managed appropriately, such as keeping some of such information not open to the public as necessary.

4. Reporting

(i) Issuers should disclose the latest information and make it readily accessible to investors (such as the issuer's website), including:

- Latest information on the performance of selected KPIs (including baselines where relevant);
- Impact on the financial and or structural characteristics of the bonds based on the performance against SPTs, and the timing of such impact; and
- Any information that is useful for investors to monitor the ambition of SPTs (Information on the issuer's sustainability/ESG strategy and or related KPI /ESG governance, or any general information relevant to the analysis of the KPIs and SPTs).

(ii) Reporting should be made at least annually, for any period relevant for assessing the performance of the SPTs which lead to potential adjustments of the financial and/or structural characteristics of the Sustainability-Linked Bonds.

(iii) For an issuer to claim financing through Sustainability-Linked Bonds, and to gain public recognition and acceptance as such, it will be necessary to ensure transparency. For this reason, issuers should publically disclose relevant information when stating that they use Sustainability-Linked Bonds. Disclosure of such information may be included in the issuer's annual report, CSR report, environmental report, sustainability report, integrated report, etc., or it may be posted on the issuer's website, etc.

5. Verification

(i) During the life of Sustainability-Linked Bonds, issuers should have the performance levels of each KPI against SPTs verified by an independent external reviewer at least once a year. Verification may include limited or reasonable assurance or audit by a qualified external reviewer with relevant expertise, such as an auditor, environmental consultant, and/or independent ratings agency.

(ii) The qualification requirements for external reviewer are essentially the same as those required

of external reviewers for Green Bonds.

(iii) It should be noted that the external review and external verification for evaluating KPI and or SPTs as described above (2. Calibration of SPT) may address different content, and thus may require different expertise from the external institution conducting the pre-contract review.

(iv) When external verifications are conducted, issuers should make publically available the documents pertaining to the verification results.

(v) Unlike pre-issuance external reviews such as a second party opinion, which are recommended, post-issuance verification is a necessary element of a Sustainability-Linked Bond.

(vi) On the premise that SPTs meet the requirements above, there may be cases where verification for each SPT might not require additional steps to be taken by the parties (for example, where the information is already subject to annual verification by an independent and external organisation, such as a regulator).

Chapter 4 Expected Procedures for Investors

A characteristic of Green Bonds is that the bond proceeds are limited to Green Projects, that will have environmental benefits. Annex 1 of the Guidelines sets out judgement criteria to determine the project that can be classified as Green Projects with explicit environmental benefits. The table in Annex 1 shows some illustrative examples of Green Projects.

Furthermore, Sustainability-Linked Bonds are characterized by their linkage between the issuer's sophistication of sustainability management and the terms of the corporate finance. Some examples are given in Annex 4 of the Guidelines, showing SPTs that are ambitious and meaningful in terms of the materiality of the business of the subject issuer.

It should be noted that these are just possible examples, and the final decision on whether to invest in Green Bonds or Sustainability-Linked Bonds is left to the investors. Therefore, the role of investors will be extremely important for the sound development of the Green Bond and Sustainability-Linked Bond market.

First, in order for investments to generate environmental benefits and positive impacts, it is important for investors to have their own intentions in investment and to embody these intentions in their own strategies. Investors' manifestation of their strategies aiming for positive impacts will be a driver of this market.

It is also recommended that, when making investment decisions on Green Bonds, investors appropriately assess whether the project for which the proceeds of the relevant Green Bond are to be used has any environmental benefits, the magnitude of its impact and other relevant factors. With regard to Sustainability-Linked Bonds, it is recommended that appropriate assessments are made regarding whether the levels of SPTs are ambitious and meaningful enough, and the magnitude of their impacts on sustainability.

When doing so, investors are recommended to note that Annex 1 and Annex 4 are just examples and that they should make decisions on a case-by-case basis even for the kinds of projects included in those Annexes. Each decision should be based on factors such as the conditions surrounding each project, negative impact if any, as well as international trends, through the explanation and self-evaluation by the issuer or external reviews.

Where an external review is provided, investors are recommended to carefully consider the documents concerning the external review results and to make final investment decisions based on their own appropriate evaluation of the relevant Green Bonds or Sustainability-Linked Bonds without solely relying on the external review. Furthermore, after investing in Green Bonds or Sustainability-Linked Bonds, investors are recommended to continue close communication with

issuers and encourage disclosure if necessary, and to appropriately monitor, how the issuers has managed of the proceeds, whether the expected impact has been achieved, and if the situation has changed.

To achieve the above, investors need to have sufficient ability to make appropriate decisions. Accordingly, it is recommended that investors have considerable insights regarding sustainable development, accumulate knowledge on Green Projects and sustainable management, and also pay full attention to international trends.

These are necessary for institutional investors, etc. to gain support from society as financial institutions executing ESG investments, which leads to the sound development of green finance and sustainable finance, as well as to the establishing of a sustainable society.

Chapter 5 Revision of the Guidelines

Given the objective to further develop the markets for Green Bonds and Sustainability-Linked Bonds, these Guidelines will be revised in response to the growth of the Japanese market, rapidly changing international trends and any other changes that may occur.

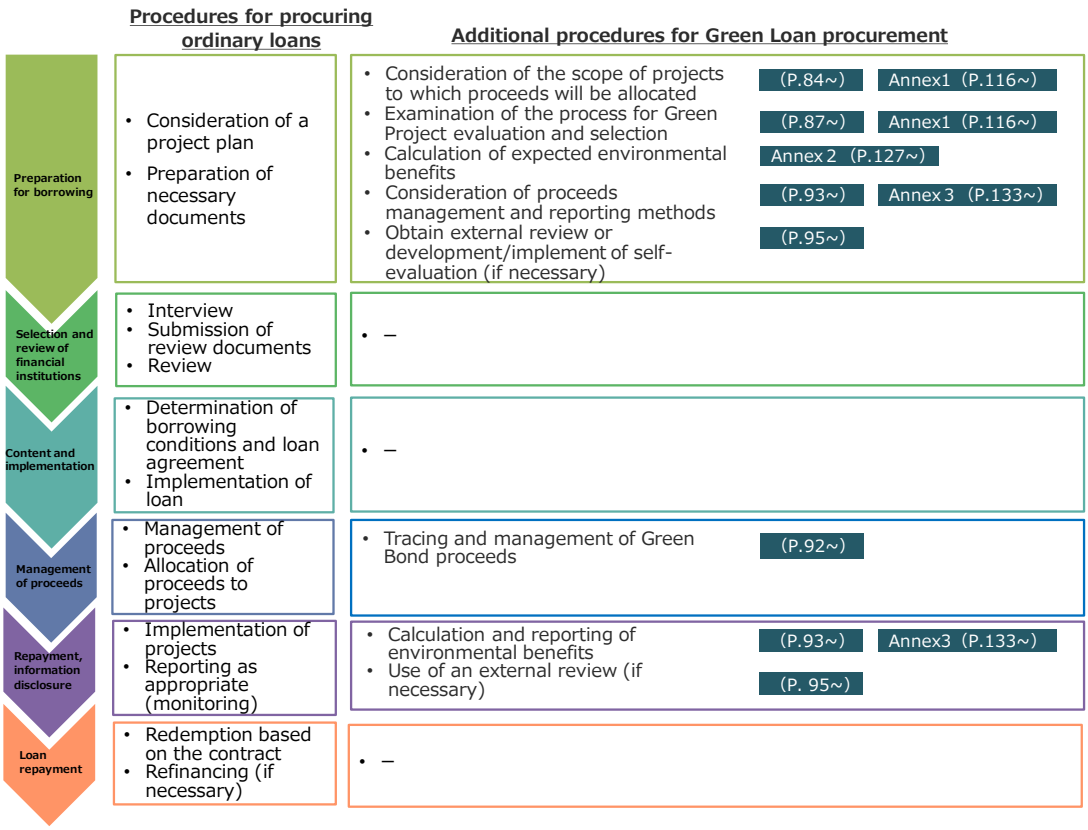
Green Loan and Sustainability-Linked Loan Guidelines 2022

Established in March 2020

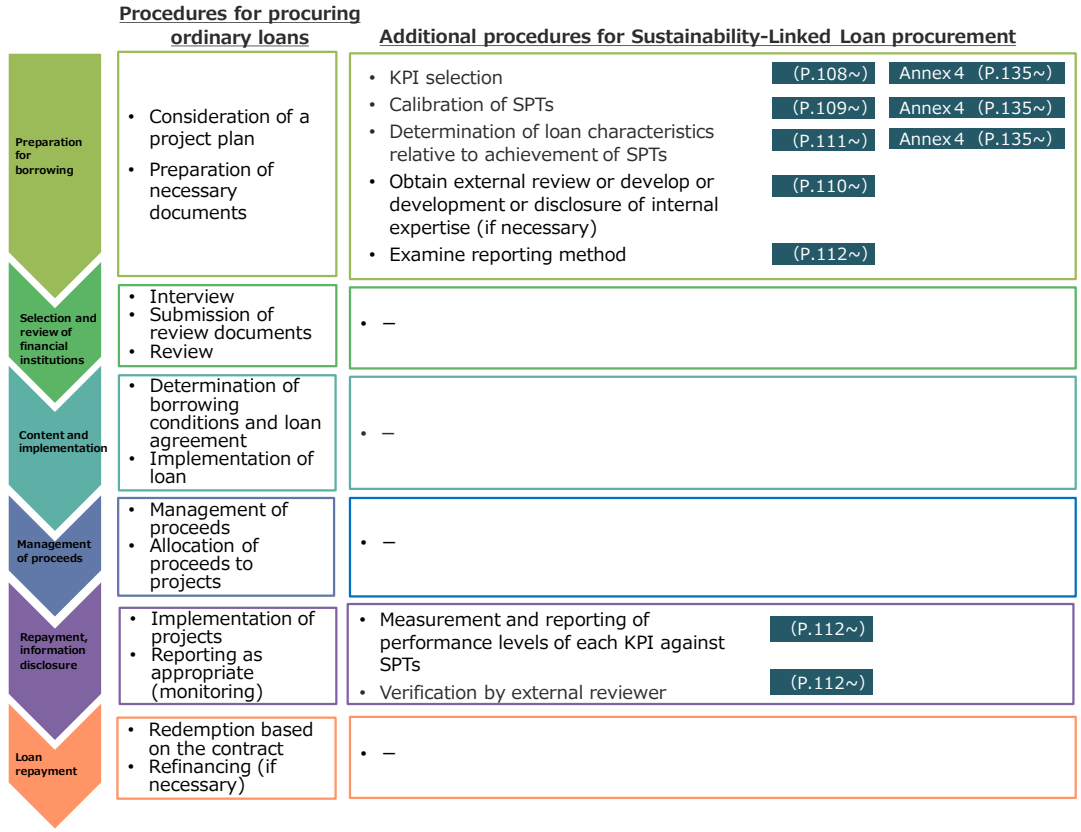
Revised in July 2022

Ministry of the Environment, Japan

Green Loan and Sustainability-Linked Loan Procurement Flow



*The page numbers in the figure refer to the relevant sections of these guidelines.



*The page numbers in the figure refer to the relevant sections of these guidelines.

Chapter 1 Introduction

1. Purpose of the Guidelines

In November 2021, the "Glasgow Climate Pact" was adopted at COP26 held in Glasgow, United Kingdom. Pursuant to this pact, it was agreed that it would be necessary to reduce global CO2 emissions by 45% by 2030 relative to the 2010 levels and to net zero around mid-century, in order to achieve "the goal of limiting global warming preferably to 1.5 degrees Celsius" in the "Paris Agreement". To achieve this goal, COP26 agreed that accelerated actions would be required in this "critical decade" to 2030. For a substantial early reduction in CO2 emissions and structural changes towards a decarbonized economy and society, it is necessary to mobilize large amounts of private investments towards Green Projects, such as renewable energy projects.

During COP26, GFANZ[29], a global coalition of financial institutions aiming to achieve net zero, was officially established, with the participation of many Japanese financial institutions. In addition, there has been further acceleration of the global movements from the financial side to encourage companies to decarbonize; for instance, the IFRS Foundation, affiliating the International Accounting Standards Board (IASB) which established the International Financial Reporting Standards (IFRS), founded the International Sustainability Standards Board (ISSB) and started working toward the international standardization of information disclosure on sustainability, including climate change.

In addition, heavy rainfall events have become more frequent in recent years, with climate change identified as a contributing factor in weather-related disasters that have caused significant damages. As global warming intensifies, it is predicted that the frequency and intensity of extreme events such as heavy rainfall will increase and that the impacts will increase in various sectors such as agriculture, forestry, fisheries, and health. In parallel to this, the importance of adaptation projects that avoid or mitigate the risks of climate change. At the same time, it is essential to address, along with climate change, conservation of biodiversity, prevention of air and marine pollution, and resource recycling including measures against plastic waste, as the interlinkage between climate change and biodiversity loss in the Glasgow Climate Pact that highlights the importance of protecting, conserving and restoring nature and ecosystems The role of private capital is also important for integrated initiatives in these fields.

In addition to the sustainable finance frameworks, such as TCFD[30], which has taken the lead on decarbonization, the Taskforce on Nature-related Financial Disclosures (TNFD) was launched in 2021 and discussions are in progress toward the publication of a disclosure framework in 2023. Not only business entities but also investors and financial institutions are regarding the sustainable use of natural capital as an element of business, as all business activities of companies affect and depend on natural capital.

[29] Glasgow Financial Alliance for Net Zero
[30] Task force on Climate-related Financial Disclosures

Japan has pledged to become carbon neutral by 2050, and has set an ambitious target aligned with the 2050 goal: a 46% reduction in GHG emissions by 2030 from 2013 levels, while striving for a 50% reduction. To achieve these goals, not only the transformation in the energy distribution structure, but also bold actions across local communities, lifestyles, and industrial structures are necessary. Furthermore, responding to climate change is deeply interlinked with challenges across various fields, including natural disasters, natural ecosystems, health, agriculture, forestry and fisheries, industry and economic activities. Therefore, Japan needs to holistically approach its aim to achieve carbon neutrality by 2050, as well as its aim to realize a sustainable economy and society in a broader sense, and drive investment into these initiatives.

The Equator Principles were formulated in 2003, aiming to confirm whether the large-scale development and infrastructure construction projects, for which loans were provided, appropriately took into account environmental and social considerations. Subsequently, several financial approaches and instruments, such as Green Bonds, have been developed in order to mobilize private capital to Green Projects, including projects contributing to the reduction of greenhouse gas (GHG) emissions and the prevention of natural capital deterioration.

In recent years, after the initial publication of the Green Loan Principles[31] (hereinafter referred to as "GLP") in March 2018, there has been a worldwide increase in Green Loans for companies looking to raise funds required for Green Projects. Green Loans started to be used in Japan, but they are not yet sufficiently utilized compared with other countries, given the necessity to introduce large amounts of private funds to achieve the above-mentioned international environmental goals.

In addition, the Sustainability-Linked Loan Principles[32] (hereinafter referred to as "SLLP") were formulated in March 2019. The SLLP provide a framework that ties improvement of corporate sustainability to loan terms (such as margin). It is believed that this framework can also become an effective tool to introduce private funds for business activities that contribute to the reduction of GHG emissions and prevention of natural capital deterioration in Japan, where corporate finance is dominant.

Since then, the GLP and the SLLP have been updated in line with international debate and particularly the framework of the SLLP has been adjusted in comparison with the Sustainability-Linked Bond Principles, which have similar characteristics.

Considering the above, the purpose of these "Green Loan and Sustainability-Linked Loan

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[31] APLMA, LMA, LSTA (February 2021) Green Loan Principles
https://www.lsta.org/content/guidance-on-green-loan-principles-glp/
The Green Loan Principles (GLP) comprise voluntary recommended guidelines on borrowing Green Loans, published by Asia Pacific Loan Market Association (APLMA), Loan Market Association (LMA), and Loan Syndications & Trading Association (LSTA). GLP are recognized as international standards on Green Loans.

[32] APLMA, LMA, LSTA, (March 2022) Sustainability-Linked Loan Principles
https://www.lsta.org/content/sustainability-linked-loan-principles-sllp/
Sustainability-Linked Loan Principles (SLLP) comprise voluntary recommended guidelines on borrowing Sustainability-Linked Loans, published by Asia Pacific Loan Market Association (APLMA), Loan Market Association (LMA), and Loan Syndications & Trading Association (LSTA). SLLP are recognized as international standards on sustainability-linked loans.

Guidelines" (hereinafter "the Guidelines") is to increase the utilization of Green Loans and Sustainability-Linked Loans in Japan. To maintain the credibility of the green characteristics, the Guidelines seek to prevent "green wash" (proclaiming to be "green" despite having no environmental benefits or not allocating proceeds[33] appropriately to Green Projects).

The Guidelines have aligned with the GLP and SLLP, which are widely accepted in international Green Loan and Sustainability-Linked Loan markets, provide borrowers, lenders, and other market participants with illustrative examples of specific approaches and interpretations tailored to the Japanese market for their reference in decision-making regarding Green Loans and Sustainability-Linked Loans. The Guidelines aim to enhance the credibility of the green eligibility of such loans as well as alleviate the costs and administrative burdens for borrowers, thereby spurring the Green Loan and Sustainability-Linked Loan market in Japan.

It should be noted that the Guidelines are not legally binding and thus no legal penalties will be imposed if a certain action does not comply with the elements described in the Guidelines (including elements described with the word "should"). However, it is necessary to note that, if a certain action violates any laws and regulations, legal penalties may be imposed.

Furthermore, these Guidelines were developed in 2020 and have been revised in 2022, in light of revisions to the international principles as well as market and domestic policy trends, thus it is recommended to make sure to refer to the latest version.

2. Measures taken so far in Japan for ESG loans focused on environmental factors

ESG loans refer to financing that takes into consideration environmental (E), social (S), and governance (G) factors. For example, such financing includes loans based on project feasibility evaluations that take into consideration ESG factors from a financing standpoint, as well as financing for projects that have impacts on the environment and society (environmental and social projects), such as renewable energy projects, energy-saving projects, and recycling projects. Both Green Loans and Sustainability-Linked Loans are considered as ESG loans.

In Japan, the Development Bank of Japan Inc. provided the first environmentally-rated loan ahead of other countries in 2004. Since then, the offering of environmentally-rated loan programs by Japanese financial institutions has expanded to a certain extent. In an environmentally-rated loan program, a financial institution appropriately evaluates the borrower company's efforts in environmental management and environment-conscious activities upon providing loans, and based on that evaluation, it sets the financing conditions, such as phased changes in interest rates, and then decides on the provision of the loan.

In addition to the definition of ESG loan noted at the beginning of this report, recommendations made by the ESG Finance Roundtable in 2018 included a proposal on the importance of addressing ESG loans in indirect finance.

[33] "Proceeds" in the Guidelines means the "net proceeds" after procurement fees have been deducted.

Subsequently, in addition to environmentally-rated loans, ESG regional financing has also emerged, aiming simultaneously to solve regional socio-economic and environmental issues and form sustainable local communities. ESG regional financing refers to activities of regional financial institutions, such as providing borrowers with necessary support, knowledge, or financing that takes into consideration ESG factors corresponding to regional characteristics. In particular, the review process takes into consideration ESG factors in project feasibility evaluations for providing financing.

Japan has recently seen an increase in cases where Green Loans are provided to finance Green Projects based on GLP, and/or cases where Sustainability-Linked Loans are offered based on the SLLP.

ESG lending is a concept that requires financial institutions to take ESG factors into account upon providing funds. Furthermore, depending on the main purpose of the economic activities for which the funds are provided, such financing may be referred to in any of the following ways: (i) climate finance for achieving the target set by, for instance, the Paris Agreement; (ii) climate change adaptation finance; (iii) biodiversity finance for preservation of biodiversity; (iv) circular economy finance for building a recycling-oriented society; (v) green finance for overall environmental measures; (vi) social finance for solutions to overall social issues; (vii) regional revitalization SDG finance for regional revitalization; (viii) SDG finance for achieving SDGs by the United Nations; or (ix) sustainable finance for the formulation of a sustainable society. Furthermore, the Japanese market has recently seen a rise in positive impact finance practices, whereby lenders clearly intend to generate positive social and/or environmental impact and comprehensively evaluate the positive and negative impacts of the borrower's business.

3. Basic Concepts of the Guidelines

(1) Green Loans

Green Loans are to be developed through interactions based on sufficient information between borrowers, clearly declaring that they will allocate the proceeds only to Green Projects, and lenders who want to finance Green Projects of their choice. The final decision on how to evaluate the appropriateness of the borrower's approach to the relevant Green Loan, and whether a Green Loan should be provided at all, is left to those parties involved in the loan.

It is helpful to organize the expected elements of Green Loans in the Guidelines to form the foundation for interactions between borrowers and lenders and serve as a tool for assuring stakeholders that the finance/investment is for Green Projects.

Additionally, it is important for borrowers and lenders that the credibility of the green eligibility of Green Loans is maintained within the market and society. In particular, preventing 'greenwashing' through the use of a Green Loan product is imperative.

Based on the above, the Guidelines have been developed in alignment with the internationally accepted GLP (as of February 2021). The Guidelines recognize that a Green Loan that align with its four components: (1) Use of Proceeds, (2) Process for Project Evaluation and Selection, (3) Management of Proceeds, and (4) Reporting, all of which are described with the word "should" in

Chapter 2 of the Guidelines, can be internationally accepted as Green Loans[34].

(2) Sustainability-Linked Loans

Like Green Loans described above, Sustainability-Linked Loans are also to be developed through interactions based on sufficient information between borrowers and lenders. The final decision on how to evaluate the appropriateness of the borrower's approach to the relevant Sustainability-Linked Loan, and whether a Sustainability-Linked Loan should be provided, is left to those parties involved in the loan.

The Guidelines have been developed in alignment with the SLLP (as of March 2022). In particular, the Guidelines recognize that a Sustainability-Linked Loan is expected to be aligned with five components: (1) Selection of KPIs, (2) Calibration of SPTs, (3) Loan Characteristics, (4) Reporting, and (5) Verification. Loans that address all of these components described with the word "must" or "should" in Chapter 3 of the Guidelines can be internationally accepted as Sustainability-Linked Loans.

(3) Common items

As for the items whose interpretation may vary among borrowers, lenders, and other participants, it is important to establish a mechanism whereby borrowers disclose how they address them and lenders or other participants evaluate its appropriateness , and the market participants accumulate and make the most of knowledge. This mechanism will improve market discipline to prevent the risk of greenwashing while securing the diversity of borrowers' approaches to each item.

On an international basis, various countries and jurisdictions try to classify environmentally sustainable economic activities in order to identify eligible recipients of investments and loans in sustainable finance. The Guidelines have the same objective, in a sense that it clarifies and provides in Annex 1 the guidance on the definition of environmental aspects, i.e., green eligibility, as a reference for assessment in the market.

With regard to the use of proceeds of Green Loans in Japan, it is also important to continue to take necessary measures, monitoring the international collaborative efforts and improving international comparability and interoperability.

These Guidelines focus on the green eligibility of Green Loans and the sustainability of Sustainability-Linked Loans, and therefore do not cover their characteristics and inherent risks as loans. It is important to note that Green Loans and Sustainability-Linked Loans, even if aligned with the Guidelines, have credit and other risks, like ordinary loans.

[34] However, it is necessary to keep in mind that an individual Green Loan is to be evaluated and selected by each lender and other related participants based on their own ways of thinking.

4. Relations with Related Financial Approaches and Instruments

Climate transition finance

Climate transition finance is a financial approach to support GHG emissions reduction initiatives of companies that take action to reduce emissions based on their long-term strategy for transition to a decarbonized society[35]. This finance is for companies committed to ambitious efforts for the future as they are required to have explicit strategies to achieve long-term goals consistent with the Paris Agreement. Climate transition finance is therefore an important tool for realizing a decarbonized society.

At the same time, climate transition finance is determined holistically – not just by the use of proceeds or the KPIs rather by, the credibility of the borrower's climate transition strategy and execution. Borrowers can label their loans as climate transition finance when the loans meet the four key elements[36] of climate transition finance as well as the criteria for Green Loans or Sustainability-Linked Loans set forth in the Guidelines for financing processes.

As mentioned above, the choice of the label should be determined by the borrower, based on their own business strategy, financial strategy, sustainability/ESG strategy in the market as mentioned above. Meanwhile, borrowers can choose to label their loans as climate transition finance for climate change mitigation projects by referencing the four key elements of Climate Transition Finance ,in case they disclose their climate transition strategies in line with Paris Agreement.

5. Structure of the Guidelines

Section 1 of Chapter 2 provides an overview of Green Loans. It also describes the benefits of financing using Green Loans and providing such loans, as a reference for both borrowers and lenders who are considering entering into Green Loans.

Section 2 of Chapter 2 describes expected elements of Green Loans and examples of possible approaches.

Section 1 of Chapter 3 provides an overview, and the significance, of Sustainability-Linked Loans.

Section 2 of Chapter 3 describes expected elements of Sustainability-Linked Loans and examples of possible concrete approaches. The precision of wording in Chapters 2 and 3 is as follows:

(i) Sentences containing the word "must" are elements that must be in place for loans labelled as "green" or "sustainability-linked" in these Guidelines.

(ii) Sentences containing the word "should" indicate essential elements for loans labelled as

[35] See the "Basic Guidelines on Climate Transition Finance" by the Financial Services Agency, the Ministry of Economy, Trade and Industry, and the Ministry of the Environment, Japan. https://www.meti.go.jp/english/press/2021/pdf/0507_001a.pdf

[36] In the "Climate Transition Finance Handbook" and the "Basic Guidelines on Climate Transition Finance," four elements (Element 1: Borrower's climate transition strategy and governance; Element 2: Business model environmental materiality; Element 3: Science-based climate transition strategy that includes targets and pathways; Element 4: Implementation transparency) are recommended to be disclosed by the borrower.

"green" or "sustainability-linked".

(iii) Sentences containing the word "recommend" indicate ideal but not requisite elements for loans labelled as "green" or "sustainability-linked" that the Guidelines suggest to install.

(iv) Sentences containing the phrase "to be considered" are examples of possible approaches and interpretations related to Green Loans or Sustainability-Linked Loans, although they are not requisite for labels as "green" or "sustainability-linked".

Chapter 4 describes expected procedures for lenders.

6. How to Cite these Guidelines

When citing these Guidelines, they should be referred to as the "Green Loan Guidelines 2022" when specifically referencing the Green Loan sections, and as the "Sustainability-Linked Loan Guidelines 2022" when specifically referencing the Sustainability-Linked Loan sections.

Chapter 2 Green Loans

Section 1 Overview of Green Loans

1. Definition of Green Loans

Green Loans are loans used by companies, local governments, or other organizations to raise funds for domestic and overseas Green Projects. Specifically, these loans have the following features: (i) the proceeds are allocated exclusively to Green Projects, (ii) the proceeds are tracked and managed in a reliable manner, and (iii) transparency is ensured by reporting following financing.

Those taking out Green Loans (borrowers) include: (i) corporations that raise funds for Green Projects (including Special Purpose Companies ("SPCs")[37] that only handle Green Projects), (ii) financial institutions that raise investment funds and loans for Green Projects, and (iii) local governments that raise funds for Green Projects.

Those providing Green Loans (lenders) include, amongst others, financial institutions that commit to ESG loans.

Diverse lending instruments including loans (such as term loans) can be considered for Green Loans.

2. Benefits of Green Loans

(i) Benefits to Borrowers

The benefits for borrowers of Green Loans are as follows:

1) Improve corporate sustainability

Working on Green Loans may lead to the development and implementation of sustainability strategy, risk management, and governance systems within the organizations. This also helps to satisfy the ESG information disclosure requirement placed by the Task Force on Climate-related Financial Disclosures (TCFD)[38] and others. Furthermore, it can be considered to improve the medium- and long-term ESG assessment of the borrower, which will in turn help raise their corporate value.

2) Enhance corporate reputation by promoting Green Projects

[37] A SPC (Special Purpose Company) is a corporation established for the limited purpose of acquisition of and financing backed by specific assets (real estate, bonds).

[38] The TCFD (Task Force on Climate-related Financial Disclosure) established by the FSB (Financial Stability Board). The final recommendations, presented in June 2017, encourage companies and investors to conduct climate-related financial disclosures for the appropriate assessment of climate related risks and opportunities and their financial implications for appropriate investment decisions.

Since the use of Green Loan proceeds is limited to Green Projects, if borrowers, such as companies or local governments, use Green Loans, the proceeds are allocated to Green Projects, leading to promoting such projects. Therefore, borrowers can demonstrate that they are actively promoting Green Projects by using Green Loans, which can enhance their reputation.

3) Strengthen a funding base by building relationships with new lenders

Diversifying a funding base is an effective means for borrowers to reinforce their fundraising strategy. Using a Green Loan and disclosing the relevant information offer borrowers the opportunity to consolidate their funding base by building new relationships with financial institutions which value ESG.

4) Possibility of gaining pricing benefits

If a company raises funds through Green Loans or similar loans that use cashflow generated from a renewable energy or other business with strong business viability, it may be able to raise funds on relatively favorable terms from financial institutions who are well versed in evaluating the feasibility of such businesses.

(ii) Benefits to Lenders

The benefits for lenders of Green Loans are as follows:

1) Satisfy ESG finance requirements and enhance reputation

Some lenders are committed to a certain scale of ESG finance. For them, Green Loans clearly match this commitment and can provide a stable cash flow unless in the case of defaults. Moreover, lenders that do not have such commitments can demonstrate that they actively engage in Green Loans, support Green Projects, and thereby enhance their reputation, while obtaining stable cash flows unless in the case of defaults.

2) Achieve both financial returns and environmental and social benefits through lending

By providing Green Loans, lenders can help borrowers generate environmental and social benefits (listed below in (iii)) that contribute to creating a sustainable society, while simultaneously gaining financial returns.

3) Enable support directly Green Projects

In light of the global quest for lower GHG emissions based on the Paris Agreement, it is expected that the demand for investment in Green Projects related to renewable energy and energy efficiency will increase substantially. Green Loans offer lenders the opportunity to support directly such projects.

4) Enhance corporate sustainability through deeper engagement with borrowers

Green Loans enable lenders to engage effectively with borrowers on holistic environmental impacts, including positive environmental impacts and associated negative environmental and social impacts, through evaluating disclosed sustainability information.

Such efforts will lead lenders to have deep conversations on business issues with borrowers, which may contribute to offering more effective solutions that satisfy borrower's needs and helping borrowers acquire new business opportunities. That may also improve borrowers' corporate sustainability and further lead to enhancing their corporate value.

(iii) Environmental and Social Benefits

Environmental and social benefits that can be generated from Green Loans include the followings:

1) Contribute to global environmental conservation

An increase in Green Loans is expected to increase private funds in Green Projects, such as renewable energy and energy efficiency projects, and contribute to the long-term substantial reduction of GHG emissions in Japan and beyond. Moreover, Green Loans can mobilize capital in Green Projects beyond those contributing to the reduction of GHG emissions will contribute to the prevention of the degradation of natural capital, which is the foundation of long-term profits for companies.

2) Raise the awareness of individuals who deposit with financial institutions that provide Green Loans

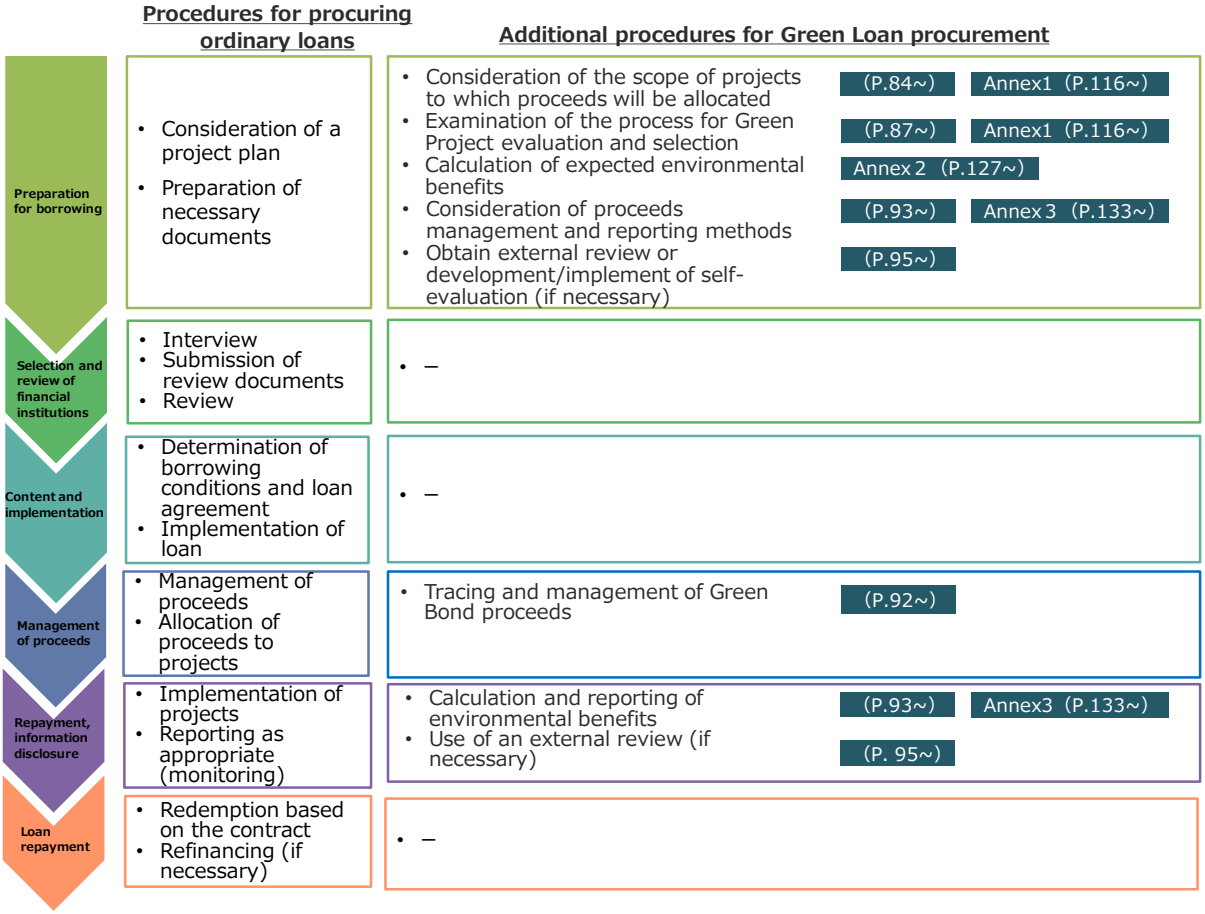
An increase in Green Loans and Green Deposit will enhance individual awareness of Green Loans, which will in turn motivate individuals actively to deposit with financial institutions that provide such loans. Raising such awareness will motivate financial institutions who are the holders of individuals' assets, to actively provide Green Loans.

3) Contribute to resolving social and economic issues through the promotion of Green Projects

Promoting Green Projects through the use of Green Loans can lower energy costs, strengthen energy security, revitalize the regional economy, and enhance resilience in the event of disasters.

3. Green Loan Flow

Companies, local governments, or other organizations that take out Green Loans need to follow extra procedures, in addition to the procedures required for taking out ordinary loans. These procedures are illustrated below:



*The page numbers in the figure refer to the relevant sections of these guidelines.

Section 2 Expected Elements of Green Loans and Examples of Possible Approaches

1. Use of Proceeds

[Use of proceeds]

(i) Proceeds of Green Loans should be used for eligible Green Projects that have clear environmental benefits. The borrowers should assess such environmental benefits and is recommended to quantify them where feasible.

(ii) Specific examples of the use of proceeds may include Green Projects described in Annex 1 (including assets, investments, and other related and supporting expenditures such as R&D, capacity building expenses and monitoring expenses related to such projects).

(iii) Green Projects may have associated negative environmental and/or social impacts on the environment, in addition to their intended environmental benefits. Green Projects that provide clear environmental benefits described above are projects that the borrower considers that such negative impacts are not excessive in comparison to the environmental benefits.
Annex 1 shows some of the typical examples of such negative impacts.

[Communication with lenders in advance on the use of proceeds]

(iv) Borrowers should provide lenders, in advance, with information regarding the use of proceeds in documents, such as contracts, exchanged between parties involved.

(v) Communication with lenders on the use of proceeds should specify the project category of the Green Project, such as the construction of facilities for a wind power generation project or lending to projects related to biomass power generation, so that lenders and other relevant parties are able to evaluate the appropriateness of the use of proceeds. In cases where individual Green Projects have been specified, it is recommended that borrowers clearly specify the relevant projects.

(vi) In cases where Green Projects have associated negative environmental and/or social risks along with the intended environmental benefits, borrowers should include information regarding such negative impacts (e.g., how they are assessed, how the borrowers will address them) in their communication so that lenders and other relevant parties can appropriately evaluate these impacts.

[Measures for when proceeds are allocated to refinancing]

(vii) Green Loan proceeds can be allocated not only to new Green Projects but also to refinance existing Green Projects.
While the proceeds allocated to refinancing can maintain existing Green Projects, their environmental significance differs from that of proceeds allocated to finance new Green Projects, since refinancing existing Green Projects does not always generate additional

environmental impact.

In cases where Green Loan proceeds are used to refinance existing Green Projects, it is recommended that borrowers provide information to the lenders regarding (1) the estimated amount (or share) of the loan proceeds being allocated for refinancing, and (2) which Green Projects (or Green Project categories) are to be refinanced. Furthermore, when using the proceeds for refinancing Green Projects, the borrowers are recommended to indicate the target period of the given Green Projects (lookback period).

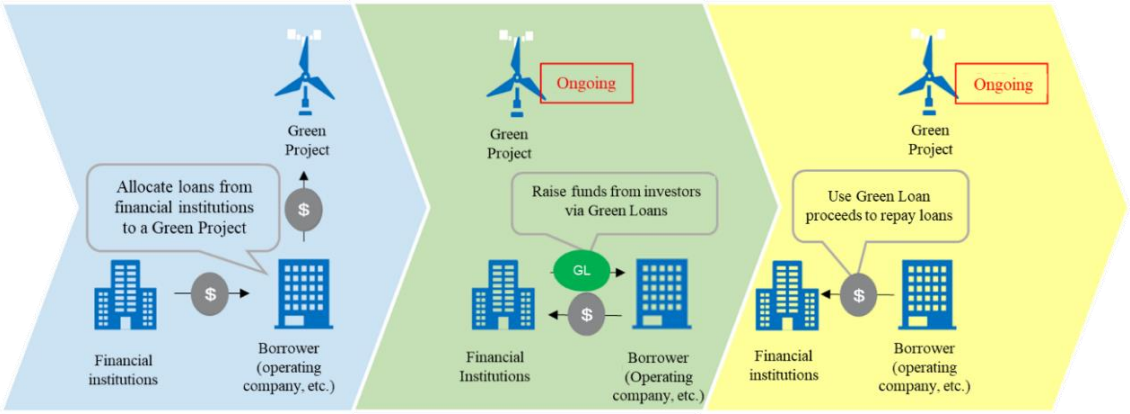
In cases where the percentage of proceeds allocated to new Green Projects is greater than that for refinancing, providing an estimated amount (or share) of the proceeds being allocated to a new project may serve to enhance the assessment of the Green Loan.

When Green Loans are used multiple times to refinance an asset that requires long-term maintenance, the borrower should clearly disclose the asset's age, remaining life and the amount to be refinanced as of the time of procurement, evaluate the long-term sustainability of environmental benefits and obtain an assessment from an external reviewer as necessary.

<Possible refinancing examples>

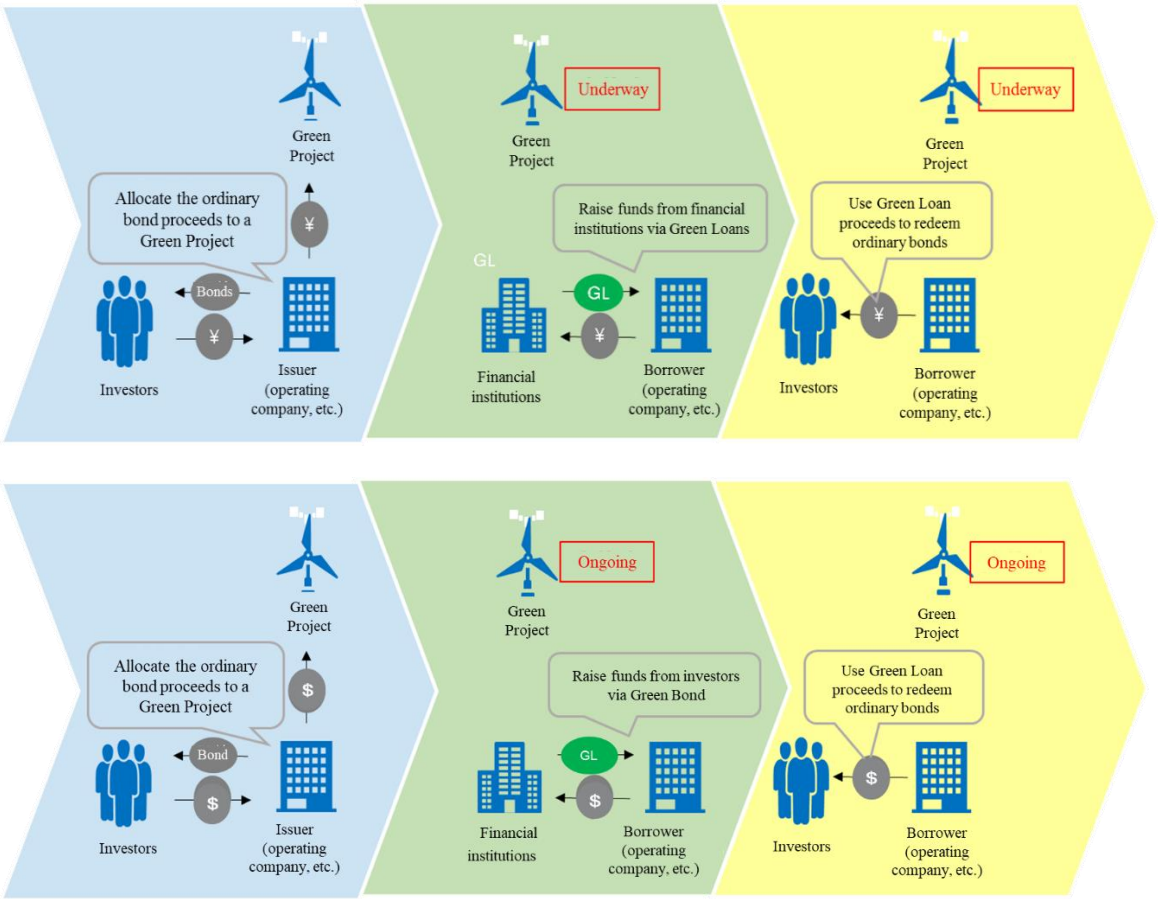
* Possible examples are not limited to the followings:

- Cases where the Green Loan proceeds are allocated to repay (refinance) loans related to Green Projects.

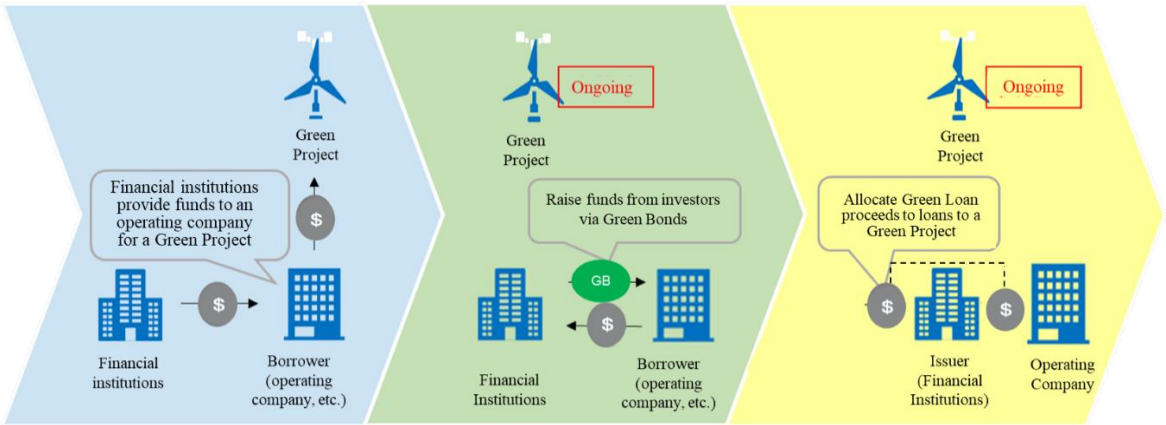


- Cases where new Green Loan proceeds are used to redeem a bond that has been issued, or repay a loan that has been taken out, to finance existing or completed Green Projects at maturity.

  * An example of a completed Green Project may include the construction of green buildings.



- Cases where financial institutions allocate Green Loan proceeds as a resource for existing loans linked to Green Projects.



[Measures when using Green Loans as part of multi-tranche loans]

(viii) When a loan is divided into multiple tranches, Green Loans may be used for one or more of the tranches. In such cases, green tranches should be clearly designated to enable tracking, whether the borrower transfers the borrowed funds for green tranches to a dedicated account or whether the green tranches are otherwise tracked by the borrower in an appropriate manner.

2. Process for Project Evaluation and Selection

[Communication with lenders in advance on the process for project evaluation and selection]

(i) Borrowers should clearly communicate to lenders by providing information in advance regarding the following: (1) the environmental sustainability objectives that the borrowers intend to achieve through the Green Loans; (2) the criteria for determining the eligibility of Green Projects based on the environmental sustainability objectives described above; (3) the process by which the borrower determines how the Green Projects fit the criteria; and (4) the process by which the borrower identifies, mitigates and manages the perceived environmental and social risks associated with the relevant project(s).

(ii) When individual Green Projects to which Green Loan proceeds will be allocated are determined, the projects to which the proceeds are allocated can be assumed to have been already evaluated and selected, and therefore the establishment of the criteria described above may be understood to be unnecessary. On the other hand, borrowers should provide lenders with information in advance regarding the following: (1) the environmental sustainability objectives that the borrowers intend to achieve through the Green Loans; (2) the evaluation and selection process by which the borrower determines the relevant projects; and (3) the process by which the borrower identifies, mitigates and manages the perceived environmental and social risks associated with the relevant project(s).

(iii) In contrast, when individual Green Projects to which Green Loan proceeds will be allocated are already determined (e.g., (1) in cases where a corporation or a local government borrows a Green Loan to raise funds for Green Projects in the relevant business and project category and (2) in cases where financial institutions raise funds for investments and loans for a large number of Green Projects, etc.), the borrowers should establish, criteria for determining the eligibility of the Green Projects based on the objectives, the evaluation and selection process by which the borrower determines how the Green Projects fit the criteria, as well as the process by which the borrower identifies, mitigates and manages the perceived environmental and social risks associated with the relevant project(s), and provide lenders with such information in advance. When individual Green Project have not been selected, the borrower may also consider establishing a common criteria and process for evaluating and selecting projects for Green Loans and or other financial instruments, as well as the process by which the borrower identifies, mitigates and manages the perceived environmental and social risks associated with the relevant project(s).

[Environmental objectives]

(iv) Environmental objectives are the environmental benefits that the borrower intends to achieve through the Green Loans, such as climate change mitigation and adaptation and the conservation of biodiversity.

[Criteria]

(v) Criteria provides the basis for evaluating and selecting eligible Green Projects in light of the environmental sustainability objective. For instance, if climate mitigation or adaptation is the main environmental objective, the proceeds may be used for Green Projects that will reduce GHG emissions such as renewable energy projects.

(vi) The following are the examples of the criteria for evaluating and selecting Green Projects: It is recommended that the borrower explains to lenders in advance any environmental standards or certification that the borrower will refer to in evaluating and selecting a Green Project to be financed.

<Examples of "criteria" for the evaluation and selection of Green Projects>

* These are examples only and not limited to the followings:

- Projects should fall under the categories specified for the use of proceeds in the GLP or in the Guidelines.
- Projects for renewable energy should not fall under the category of projects with significant negative impacts on the environment and society as specified in the Equator Principles.
- Projects should fall under the category of projects that build energy efficient buildings for certification by environmental certification systems such as LEED, CASBEE, and BELS.

[Process]

(vii) The process for evaluation and selection of Green Projects refers to, for example, the basis for how borrowers determine why certain projects can provide environmental benefits appropriately in light of the objectives and criteria for the use of Green Loan proceeds, how and by whom the above criteria are applied and used to determine whether Green Projects are eligible in light of the environmental objectives (which division actually conducts the evaluation and selection, and determines the eligibility).

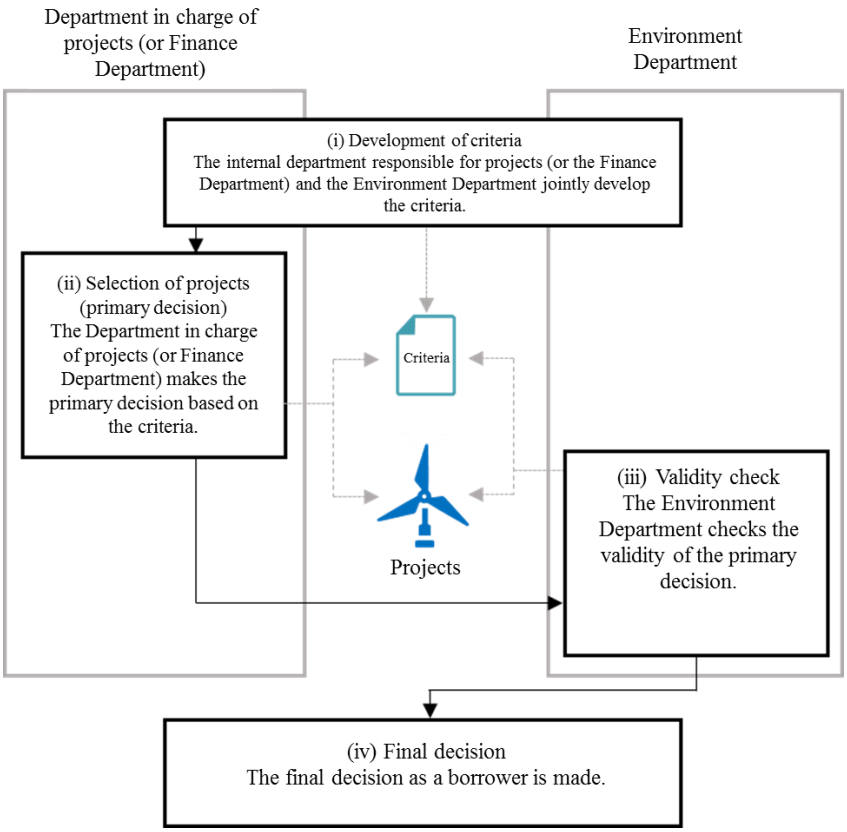
(viii) It is recommended that internal departments with environmental expertise, such as the environment related department, or external institutions are involved in the evaluation and selection process of Green Projects to ensure suitability from an environmental point of view.

(ix) The following are examples of project evaluation and selection process for Green Projects:

<An example of a decision-making process>

* This is an example only and not limited to the following:

- An internal department responsible for the projects (or the Finance Department) and the Environment Department jointly develop the criteria. After the department responsible for the projects (or the Finance Department) uses the criteria to make the primary decision regarding project eligibility, the Environment Department checks the validity of the primary decision before making the final decision as the company.



[Incorporation into overarching goals, strategies, etc]

(x) Borrowers are encouraged to position their environmental objectives, criteria and information on their processes in the context of their overarching environmental sustainability goals, strategies, policies (e.g. medium-term management plan, sustainability/ESG strategy) and or other related processes when communicating to lenders.

[Alignment with related standards and certifications, and information disclosures]

(xi) In addition to the eligibility of the project category for Green Projects, when setting exclusion criteria such as requirements to eliminate perceived negative environmental and/or social risks of a Green Project, borrowers are encouraged to disclose relevant information and environmental standards and certifications referenced (Annex 1 of these Guidelines, taxonomies[39], other environmental standards and certifications). Borrowers are also encouraged

[39] In the EU, taxonomy rules have been established to clarify whether economic activities are environmentally sustainable etc and have already been implemented in the two areas of climate change

to explain how the actual Green Project is aligned with the referenced environmental standards and certifications, when and if borrowers refer to them. In addition, when obtaining external certifications, borrowers are encouraged to explain the expected environmental benefits to be achieved, rather than just satisfying the certification requirements.

[Processes related to the identification, mitigation, and management of environmental and social risks]

(xii) The process of identifying, mitigating, and managing associated environmental and/or social risks refers to the identification, mitigation, and management of significant negative environmental and/or social impacts as well as the environmental and social risks associated with the implementation of the project.

(xiii) For example, hydropower generation above a certain scale may have associated negative impacts such as land modification, etc. These negative impacts could result in the loss of the environmental benefits and value of Green Projects, and the process for identifying and managing the potentially significant environmental and social risks of Green Projects should be explained to lenders in advance. Borrowers are also encouraged to have a process in place to identify mitigation measures for the above-mentioned risks. These mitigation measures may include the implementation of a clear and appropriate trade-off analysis and necessary monitoring when the borrower assesses the potential risks to be significant.

[Lenders' accompanying borrowers' formulation of the evaluation and selection process]

(xiv) Loans, traditionally, are a transaction based on the relative relationship between the borrower and lender and smooth financing would be facilitated by the financial institution, who is the lender, assisting the borrower in the formulation of a green finance framework.

3. Management of Proceeds

[General information]

(i) The borrowers should track and manage the entire amount of Green Loan proceeds or the amount equivalent to these net proceeds in an appropriate manner to ensure that the funds raised by the procurement of Green Loans are allocated to Green Projects properly. These tracking and managing activities should be controlled by the borrower's internal processes.

(ii) As long as the Green Loans are outstanding, the borrower should conduct periodical checks (at least yearly) to ensure that the amount used for Green Projects is equal to or greater than the amount raised by the procurement of Green Loans or the sum of the amount allocated to Green Projects and the amount of the unallocated proceeds match the total amount of Green Loan

mitigation and adaptation. In the areas of climate change mitigation and others, Malaysia, China, Singapore and other countries have also formulated taxonomy rules, and the Climate Bond Initiative, an international NGO in the United Kingdom, has also formulated taxonomies in the area of climate change mitigation.

proceeds[40]. If any of the proceeds remain temporarily unallocated, the borrower should explain to lenders how it intends to manage the balance of such unallocated funds and endeavor to promptly allocate such funds to Green Projects.

[40] For instance, financial institutions often provide multiple loans for Green Projects for which Green Loan proceeds are to be used and the maturities of such loans do not match the maturity of Green Loans. As a result, when a loan is repaid, the loan balance will be smaller than the amount of funds initially raised by the procurement of Green Loans. In this case, adjustments will become necessary such as reallocating Green Loan Proceeds to a different new Green Project.

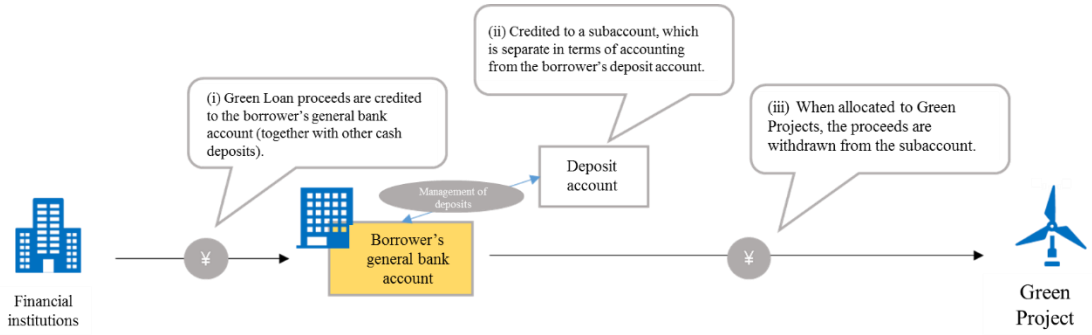
[Methods for the tracking and management of proceeds]

(iii) Possible methods for the tracking and management of proceeds include the following:

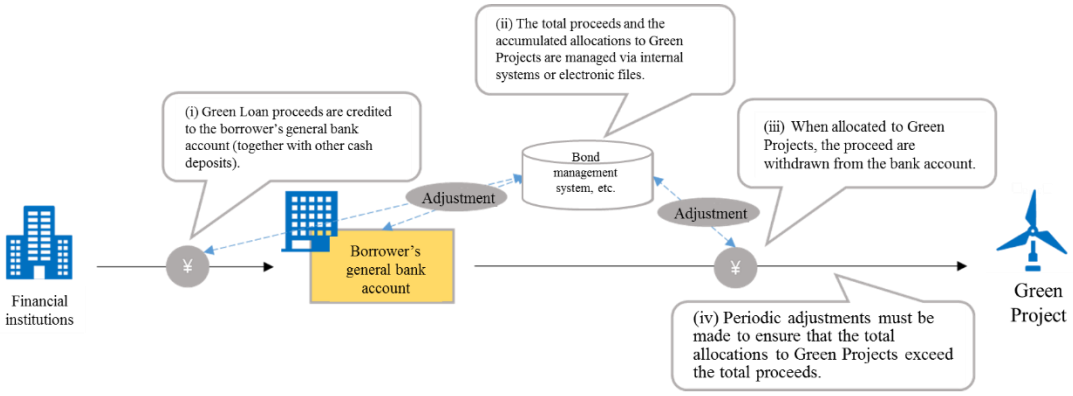
<Examples of possible methods for the tracking and management of proceeds>

* These are examples only and not limited to the followings:

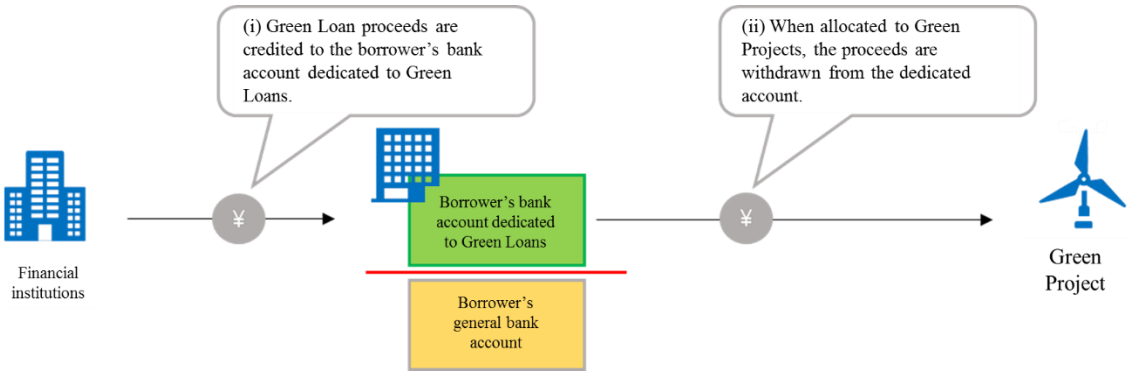
- The Green Loan proceeds are credited to a subaccount that is financially separate from other accounts, and the proceeds are withdrawn from this account when allocated to Green Projects.



- Manage the total proceeds and the accumulated allocations to Green Projects via internal systems or electronic files and periodically adjust to ensure that the latter exceeds the former.



- The Green Loan proceeds are credited to a separate account and managed separately from other business funds. When allocating the proceeds to Green Projects, the proceeds are taken out from the said separate account.



[Communication with lenders in advance on methods for the tracking and management of proceeds]

(iv) Borrowers should communicate to lenders, in advance, on how Green Loan proceeds will be tracked and managed.

(v) Borrowers are recommended to appropriately keep evidence documents that demonstrate how the Green Loan proceeds have been tracked and managed.

4. Reporting

[Reporting and disclosures on the use of proceeds after the procurement of Green Loans]

(i) Lenders provide Green Loans because they expect that their funds will be allocated to Green Projects that have environmental benefits. Accordingly, the impact expressed in the reporting is an important element in the lender's ongoing monitoring of the effectiveness of loans. Borrowers should report the latest information on the use of Green Loan proceeds to the institutions participating in the loan after financing is conducted.

(ii) For a borrower to claim financing through Green Loans, and to gain public recognition as such, they need to ensure transparency. For this reason, if a borrower claims that the loan is a Green Loan, the borrower should publicly disclose the latest information on the use of Green Loan proceeds after the procurement[41]. Posting the information on the borrowers' official websites, for example, can be considered as this disclosure.

This does not apply to borrowers who do not express that the loans are Green Loans.

(iii) If the borrower is a SME and finds it difficult to publicly disclose the contents reported to the lenders, the borrower may disclose a summary or a part of the full contents, such as a summary as indicated in (v). Posting the information on the websites of the lenders and or the Ministry of the Environment, Japan's Green Finance Portal[42], etc. may also be considered.

[Timing of reporting or disclosure]

(iv) Borrowers should report or disclose, up to date information on the use of proceeds, at least annually, until full allocation. Borrowers should report or disclose such information in a timely manner even after all the proceeds have been allocated in case of material developments. Material developments include, but is not limited to, the sale of the asset or project for which the proceeds are used, a serious accident in the project or the occurrence of an event that affects the green characteristics of the project.

[Method of reporting or disclosure]

(v) Reported or disclosed information should include the followings:

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[41] Information disclosure as specified in the Guidelines does not unconditionally ensure compliance with financial laws, rules of the stock exchange, or rules of self-regulatory organizations. Regardless of the disclosure specified in the Guidelines, information must be disclosed according to the requirements of the above mentioned laws or rules.

[42] The Green Finance Portal site is run by the Ministry of the Environment, Japan of Japan for the purpose of sharing policy information on ESG finance both nationally and globally.

<Matters pertaining to reporting or disclosure>

- A list of the Green Projects to which Green Loan proceeds have been allocated
- A brief description of each Green Project (including up-to-date progress)
- The amount allocated to each Green Project
- The expected environmental benefits of each Green Project
- In case where there are unallocated Green Loan proceeds, the amount or share of unallocated proceeds, the expected timing of allocation, and how the unallocated proceeds will be managed until allocation

(vi) If Green Loan proceeds have been allocated to the refinancing of existing projects, it is recommended that disclosure includes: 1) the approximate amount (or share) of proceeds allocated to refinancing, and 2) a list of the Green Projects (or the project categories) refinanced.

(vii) While it is recommended to disclose (v) and (vi) on a project-by-project basis, if there are confidentiality and competitive considerations, or a large number of underlying projects that limit the disclosure of details, information may be presented in generic terms or in an aggregated portfolio. (For example, provide disclosure by project category, such as on, wind power generation projects, projects to introduce high-energy efficient equipment, or projects for the construction and management of waste recycling-related facilities.)

(viii) If the borrower is an SME and finds it difficult to publicly disclose the contents reported to the lenders, the borrower can consider limiting the contents to the Green Projects to which the proceeds have been allocated, the amount of funds allocated, and the summary of expected environmental benefits irrespective of (iv) and (v). Posting the information on the websites of the lenders and or green finance portal site may also be considered.

(ix) Other specific ways of disclosure may include those described in Annex 3.

[Indicators and methods for calculating environmental benefits][43]

(x) On disclosures regarding the expected environmental benefits of projects, borrowers should use appropriate indicators while ensuring consistency with environmental sustainability objectives and criteria for Green Projects, as specified in "2. Process for Project Evaluation and Selection," and the characteristics of Green Projects.

(xi) On disclosures regarding the expected environmental benefits of projects, borrowers are recommended, where feasible, to use quantitative indicators and disclose information on underlying methodologies and/or assumptions with the indicators. With both international and domestic lenders increasingly calculating the greenhouse gas emissions of their own loans and aiming to achieve net zero emissions, the quantification of environmental benefits has also become an important factor from the perspective of lenders. When quantification is difficult, external certifications, such as LEED, CASBEE, BELS, FSC, MSC, or ASC, obtained through Green Projects may be considered as qualitative indicators.

(xii) Other specific examples of indicators may include, but are not be limited to, those listed in

[43] 'Handbook – Harmonized Framework for Impact Reporting' by ICMA provides reference information on disclosure items and methods therefor and other matters.

Annex 1.

(xiii) Specific examples of methodologies for the calculation of environmental benefits when using quantitative indicators may include those explained in Annex 2.

[Disclosure in the case of syndicated loans, etc.]

(xiv) Information pertaining to Green Loans is primarily disclosed by companies, etc., who are borrowers. However, in the case of syndicated loans, if a participating financial institution requests for information regarding the green nature of the loans in the reporting that goes beyond the scope of information disclosed by the borrower in the relationship with the arranging financial institution and participating financial institutions, the arranging financial institution, while giving consideration to the importance of the request and the composition of the syndicate, is expected to act in good faith and engage with the borrower to consider the request and disclose the concerned information, given that such information is important for avoiding green wash. In particular, if there is material negative information that has not been accurately communicated to participating financial institutions, the arranging financial institution is expected to urge the borrower to accurately disclose such information.[44] However, when there are confidentiality or competitive considerations, the borrower may consider to disclose a summary of such information, or the information in an aggregated format.

5. Review

(1) General matters related to external reviews

[General information]

(i) If an objective assessment is deemed necessary, borrowers are recommended to obtain an external review to assess alignment with the framework for Green Loan procurement regarding the matters described above in 1 to 4.

(ii) There are a variety of types of external reviews including, Second Party Opinions (SPO), Verifications, Certifications and Scorings/Ratings[45].

LMA's "Guidelines for Green, Social, Sustainability and Sustainability-Linked Loans External Reviews" (March 2022) provide descriptions for the following four types of external review.

A) Second Party Opinion (SPO)

An institution with environmental/social/sustainability expertise that is independent from the borrower may provide a Second Party Opinion. The institution should be independent

[44] Based on the Practical Guidelines for Participants of Loan Syndication Transactions by Japan Syndication and Loan-trading Association (JSLA).

[45] The classification of external reviews and the contents thereof are described with reference to the "Guidelines for Green, Social, and Sustainability-Linked Loans External Reviews" (March 2022) by LMA and others. https://www.lma.eu.com/application/files/7516/4623/8848/Guidance_for_Green_Social_and_Sustainability-Linked_Loans_External_Reviews.pdf

from the borrower's adviser for its green, social and Sustainability-Linked Loan framework, or appropriate procedures such as information barriers will have been implemented within the institution to ensure the independence of the Second Party Opinion. Any concerns on the institution's independence should be disclosed to lenders.

B) Verification

A borrower can obtain independent verification against a designated set of criteria. Such criteria are those pertaining to environmental, social and sustainability, or, in the case of Sustainability-Linked Loans explained in Chapter 3, to KPIs and SPTs.

C) Certification

A borrower can have its loan or associated loan framework, the use of proceeds, or the KPIs and SPTs, certified against external green, social or sustainability standards or labels. Alignment with evaluation criteria of the standard or label is normally tested by a qualified third party.

D) Scoring/Rating

A borrower can have its loan or associated loan framework, the use of proceeds, the selection of KPIs, and or the calibration of the level of ambition of SPTs, evaluated or assessed by third parties, such as specialized research providers or rating agencies etc, according to their established scoring/rating methodology.

(iii) Such reviews can be particularly useful in the following cases:

<Examples of cases where obtaining external reviews is particularly useful>

* Possible examples are not limited to the following:

- Cases where Green Projects designated for a Green Loan include those that have negative environmental and social impacts in addition to environmental benefits, and where a borrower can obtain an objective evaluation of the appropriateness in allocating proceeds to such projects.
- Cases where a borrower requires an objective evaluation of the appropriateness of the determination criteria or the appropriateness of the decisions regarding the evaluation and selection of Green Projects based on such criteria, as expertise existing within the borrower's organization is insufficient.
- Cases where a borrower requires an objective evaluation of the appropriateness of the environmental benefit calculation method developed by the borrower when the Green Projects to which the proceeds will be allocated are relatively unique and therefore, is lacking in an existing framework for calculating the environmental benefits of the projects.
- Cases where a borrower finds the necessity to assist in the understanding of the Green Loans among selected overseas lenders expected to be unfamiliar with Green Projects and related information in Japan.

(iv) In cases where an external review of the entire Green Loan framework was obtained in the past, the borrower may not have to obtain an external review again when procuring a new Green Loan under the same framework. However, careful consideration may be necessary, as there approaches to considering the appropriateness of the schemes of Green Projects and Green Loans and or the evaluation criteria of external reviewers may have changed since the last review. For example, an external review may not be unnecessary if an SPC that exclusively

conducts Green Projects, which has obtained a review on the environmental benefits of its projects, is to procure more than one Green Loan for the same type of projects. However, when a borrower does not obtain an external review, lenders and other market participants may request that the borrower explains the appropriateness of the Green Loan framework with sufficient transparency.

[Examples of contents that can be externally reviewed]

(v) Examples of aspects that can be externally reviewed include the following:

<Examples of external review aspects>

* Possible examples are not limited to the following:

1) Pre-contract review

- The evaluation of the appropriateness of Green Projects to which the Proceeds will be specifically allocated.
- The evaluation of the appropriateness of the criteria for evaluating/selecting Green Projects to which the Proceeds will be allocated and the implementation system for evaluating/selecting Green Projects based on such criteria.
- The evaluation of the appropriateness of specific methods to track and manage the proceeds from Green Loans.
- The evaluation of the appropriateness of the expected environmental benefits (or actual environmental benefits in the case of refinancing) of Green Projects (including the appropriateness of the methods for calculating environmental benefits and preconditions for the calculation).

2) Post-contract review

- The evaluation of whether the management of the Green Loan proceeds and the allocation of the Proceeds to Green Projects were executed properly by using the methods specified by the borrower before the issuance of the Green Loans.
- The evaluation of whether the Green Projects to which the Green Loan proceeds were allocated have actual environmental benefits and if they were calculated properly by using the methods specified by the borrower before the issuance of Green Loans.

[Reporting and public disclosure of review results by borrowers]

(vi) If borrowers have their Green Loans externally reviewed, borrowers should report the documents and materials showing the review results to the lenders. Furthermore, while giving due consideration to confidentiality requirements and competitiveness, borrowers are recommended to make the external review results or a summary of the review results on publicly available via their website etc.

(2) Code of conduct for external reviewers

External reviewers should follow the following codes of conduct when giving reviews.

[Ethical standards as professionals[46]]

(i) Integrity

[46] The ethical standards of external reviewers as professionals are based on the "Code of Ethics for Professional Accountants" established by the International Ethics Standards Board for Accountants of the International Federation of Accountants and the corresponding JICPA Code of Ethics established by the Japanese Institute of Certified Public Accountants.

External review providers must act with integrity at all times and must not engage in the preparation and or disclosure of reviews based on reports or information that they recognize to be:

- Information that contains materially false or misleading statements
- Information that contains statements or information that have been prepared without due caution required in the performance of duties
- When any omission or obfuscation of necessary information will cause misunderstanding, information that omits or obfuscates such information

(ii) Fairness

External review providers should avoid holding preconceptions, avoid conflicts of interests, avoid succumbing to undue influence form others and maintain fairness at all times. As professionals, external review providers should refuse to provide a review if and when required to distort facts or to deliver a biased review for the purpose of justifying a predetermined conclusion.

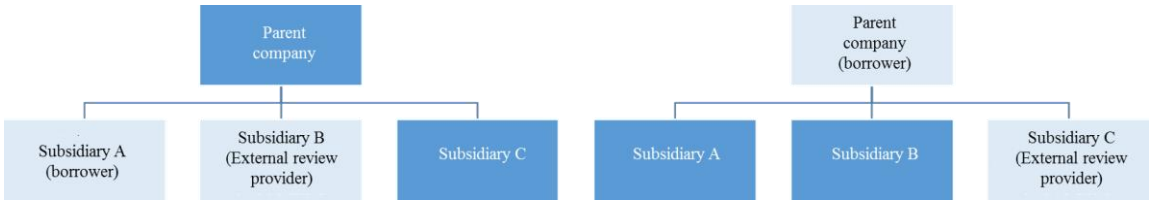
Maintaining fairness requires ensuring objectivity in the judgment of business operations. More specifically, external reviewers should be independent from, and should be a third party to, the borrower. Independency/impartiality should be judged based on personal and or capital relationships. For example, an external review is not considered to be independent or impartial in the following cases:

<Examples where independency/impartiality is not ensured>

* Possible examples are not limited to the following:

<Capital relationships>

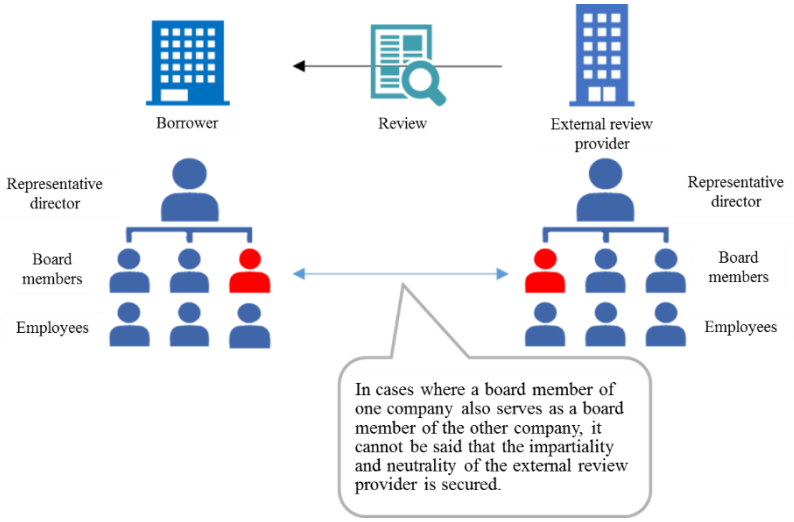
- Cases where a borrower and an external review provider are subsidiaries of the same parent company
- Cases where a borrower is the parent company of an external review provider (subsidiary)



<Personal relationships>

- Cases where a board member or one in a similar position* of one company (borrower) also serves as a board member of the other company (external reviewer)

  * A board member or one in a similar position could include the representative director, auditor, executive, and or one in any other position with legal authority over the execution and or the auditing of operation and finances under corporate law, civil law, and or any other relevant law, regardless of title.



(iii) Abilities and due care as professionals

External reviewers need to maintain the level of abilities necessary to perform their duties when providing an external review in order to provide an appropriate external review.

External reviewers should adhere to requirements as professionals and perform their duties with due care.

External reviewers should ensure that any party working under their instructions is receiving appropriate training and supervision when performing their duties.

The following professional expertise is required of external reviewers.

- To understand and be up to date on relevant knowledge, including international market trends and the most recent professional practices in their specialist areas, to always endeavor to improve their skills, and to be equipped with the latest specialist knowledge.

- To have the relevant expertise for the type of external reviews they provide and for the type of Green Projects for which they provide a review.
- To employ or to ensure the participation of other specialists in areas where they do not have sufficient expertise. It is not necessarily required for one external reviewer to evaluate all the aspects of a particular Green Loan. It is possible for more than one external reviewer to review different aspects of a Green Loan based on the respective expertise of each provider.

The professional expertise desirable of external reviewers includes the following:

<Examples of expertise>

* Possible examples are not limited to the following:

1) When reviewing the appropriateness of the Green Projects to which proceeds will be allocated, the appropriateness of the evaluation and selection process of the Green Projects and the appropriateness of environmental benefits

Expertise on criteria to determine the existence of (or lack thereof) environmental benefits, expertise on indicators to be referred to when verifying the method to quantify environmental benefits, and expertise on environmental assessment and environmental certifications

2) When reviewing the appropriateness of the management and allocation of proceeds

Expertise in financial and accounting audits

(iv) Duty of confidentiality

External review providers must not disclose to others or use for the benefit of themselves or third parties any information that has come into their possession in the course of their duties without any justifiable reason. With respect to their compliance with the duty of confidentiality, external reviewers should establish, publish or provide their customers with a policy and measures concerning the protection of customer information.

(v) Actions as professionals

External reviewers should be aware of their position as professionals, adhere to the requirements and expectations of professionals and should not take any action that will harm the credibility of or bring disrepute to external reviewers in general.

[Requirements of external reviewers as an organization]

(vi) External reviewers should have a sufficient organization structure to appropriately undertake external reviews and should have predetermined methodologies and procedures in place to conduct external reviews.

(vii) External reviewers should employ a reasonable number of people who have professional experience and qualifications necessary to cover the areas subject to the external reviews to be conducted.

(viii) When using liability insurance concerning specialist areas, external review providers should note the coverage scope of such insurance.

[Matters that should be evaluated by external review providers]

(ix) External reviewers should evaluate the following content dependent on the type of external review.

1) Intended environmental benefits of the Green Project for which the funds are to be used
2) Alignment with the four elements expected of Green Loans
3) Potential significant environmental and social risks (negative impacts) associated with Green Projects as identified by the borrower, and the process for identifying, mitigating and managing them

(x) An SPO can also include an assessment of the borrower's overarching objectives, strategies and processes relating to environmental and social sustainability.

[Information which should be included in documents and materials concerning external review results]

(xi) External reviewers should include a general description of the purpose of an external review, scope of the review, qualifications of the persons who conduct the external review and their expertise as external reviewers. At minimum, they need to show where such information is available. For instance, it is recommended that external reviewers clearly demonstrate their expertise in documents and materials concerning review results by including statements such as the following.

<Examples of description concerning the expertise of external reviewers>

* Possible examples are not limited to the following:

<Expertise>

"Our company has offered environmental evaluation services for about ● years and has solid expertise in this field."

(xii) External reviewers should include, in the documents and materials concerning their review results, a statement on their independence from the borrower and their policy on conflicts of interest. At minimum, they need to show where such information is available.

(xiii) There are various types of external reviews. Even if they have the same name, what they evaluate or the criteria they use for evaluation may differ. To assist review users in the understanding of its contents, external reviewers should clearly explain the definitions they use and their analytical approach and methodologies including the evaluation criteria applied to respective items in the documents and materials concerning their review results. For instance, these may include the following.

<Examples of the description of information concerning external reviews>

* Possible examples are not limited to the following:

This review evaluates the following aspects of the Green Loan:

(i) Pre-contract review of Green Loans		
Evaluation Aspects	Target	Evaluation Criteria
- The evaluation of the appropriateness of Green Projects to which the Proceeds will be specifically allocated.	○	Evaluation criteria of the company[47]
- The evaluation of the appropriateness of the criteria for evaluating/selecting Green Projects to which the Proceeds will be allocated and the implementation system for evaluating/selecting Green Projects based on such criteria.	○	Evaluation criteria of the company
- The evaluation of the appropriateness of specific methods to track and manage the proceeds from Green Loans.		
- The evaluation of the appropriateness of the expected environmental benefits (or actual environmental benefits in the case of refinancing) of Green Projects (including the appropriateness of the methods for calculating environmental benefits and preconditions for the calculation).	○	Evaluation criteria of the company
(ii) Post-contract review of Green Loans		
Evaluation Aspects	Target	Evaluation Criteria
- The evaluation of whether the management of the Green Loan proceeds and the allocation of the proceeds to Green Projects were executed properly by using the methods specified by the borrower before the issuance of the Green Loans.		
- The evaluation of whether the Green Projects to which the Green Loan proceeds were allocated have actual environmental benefits and if they were calculated properly by using the methods specified by the borrower before the issuance of Green Loans.		

(xiv) External reviews should have a conclusion/output, including the limitations of assessments made in external reviews. At minimum, they need to show where such information is available.

(3) General matters related to internal reviews

[Self-assessment]

(i) Given that loans traditionally are transactions driven by the relationship between the borrower and lender and therefore lenders are likely to have a broad working knowledge of the borrower and its activities, a self-assessment by a borrower, which has developed and demonstrated the internal expertise to confirm alignment of the Green Loan with the matters described in the above 1 to 4, may be sufficient.

<Examples of development of internal expertise and demonstration of effectiveness of confirmation>

[47] While it is sometimes difficult to disclose detailed evaluation "criteria", it is recommended to clearly state what type of criteria was used as much as possible.

* Possible examples are not limited to the following:

- At the borrower, a department that has expertise and is independent from the department responsible for projects performs assessment.
- If the department responsible for projects performs assessment for itself, it should do so based on the criteria and assessment method set beforehand and has a department independent from the department responsible for projects confirm its validity.

[Prior communication with lenders on self-assessment]

(ii) If borrowers perform a self-assessment, the borrower should inform the lenders in advance and explain with sufficient transparency its internal expertise upon formulation of the self-assessment process pertaining to the Green Loan framework.

(iii) Borrowers are recommended to document their internal expertise. This documentation should be communicated to the lenders on request. The self-assessment results should also be reported to the lenders on request.

[General disclosure]

(iv) When appropriate, while taking into account confidentiality and competitive considerations, borrowers should make publicly available, via their website or otherwise, their decision to review the Green Loan based on self-assessment as well as the indicators based on which they assess Green Projects and the internal expertise they have to assess such indicators.
For a borrower claim financing through Green Loans, and to gain public recognition and acceptance as such, they must ensure transparency. Therefore, borrowers are recommended to make publicly available, via their website or otherwise, the self-assessment results.

Chapter 3 Sustainability-Linked Loans

Section 1 Overview of Sustainability-Linked Loans

1. What are Sustainability-Linked Loans?

Sustainability-Linked Loans are loans that encourage borrowers to meet ambitious, pre-determined sustainability performance targets (SPTs). Specifically, such loans are those in which the relationships between sustainability objectives set out in the borrowers' comprehensive social responsibility strategies and the SPTs are organized, the degree of improvement in sustainability is assessed and measured by appropriate SPTs as measured by predetermined key performance indicators (KPI), and transparency is ensured through post-loan reporting. In other words, KPIs are indicators to measure the achievement of targets, and SPTs set the level of achievement for the indicator.

Unlike Green Loans, Sustainability-Linked Loans are often used for general business purposes, where the financing of the proceeds is not limited to a specific project. There are various types of loans and various facilities including bonding lines, guarantee lines, or letter of credits.

2. Benefits of Sustainability-Linked Loans

(i) Benefits to Borrowers

Benefits for borrowers of Sustainability-Linked Loans include the following:

1) Enhance corporate sustainability

Working on Sustainability-Linked Loans may lead to the development and implementation of sustainability strategies, risk management, and governance systems within the organizations through establishing ambitious KPI/SPTs for borrowers' overall business. This also helps to satisfy ESG information disclosure requirements, such as those of the Task Force on Climate-related Financial Disclosures (TCFD). In addition, it will improve the medium to long-term ESG assessment of borrowers, which will in turn help raise their corporate value and realize a sustainable society. If the selection of KPI and calibration of SPTs are ambitious and credible enough, that may distinguish evaluations of borrowers' sustainability from those of their peers. Moreover, this can lead to strengthening the borrower's corporate sustainability beyond the company itself and throughout the supply chain as a result of addressing ESG issues in its supply chain.

2) Enhance reputation through working on sustainable management and demonstrating proactive

support for environmentally and/or socially sustainable economic activities

By raising funds through Sustainability-Linked Loans, borrowers can demonstrate commitment to ambitious sustainability goals and their proactive support for environmentally and/or socially sustainable economic activities, which can enhance their reputation.

3) Incentives in terms of lending conditions for improving sustainability performance

Sustainability-Linked Loans include incentives, such as interest rates that fluctuate in conjunction with SPTs, in order to motivate borrowers to improve their sustainability performance. A borrower may be able to raise funds on relatively favorable terms from financial institutions with preference for ESG loans by improving their sustainability management.

4) Strengthen a funding base by building relationships with new lenders

Diversifying a funding base is an effective means for borrowers to reinforce their fundraising strategies. Sustainability-Linked Loans may provide borrowers with an opportunity to strengthen their funding base through disclosing relevant information, ensuring transparency, and building new relationships with financial institutions that favor ESG loans.

(ii) Benefits to Lenders

The following are the benefits to lenders of Sustainability-Linked Loans:

1) Satisfy ESG finance requirements and enhance reputation

Some lenders are committed to providing ESG loans of a certain size. For such lenders, Sustainability-Linked Loans clearly match such commitment and provide a stable cash flow, unless in the case of defaults. Moreover, lenders that do not have such commitments can demonstrate support for environmentally and/or socially sustainable economic activities, potentially enhancing their reputation, while obtaining stable cash flows, unless in the case of defaults.

2) Achieve both financial returns and environmental and social impacts through lending

By providing Sustainability-Linked Loans, lenders can support borrowers generate environmental and social impacts (listed below in '(iii) Environmental and Social Benefits') that contribute to creating a sustainable society while simultaneously gaining financial returns.

3) Motivate borrowers to improve their sustainability performance

By linking lending conditions and sustainability performance, lenders may motivate borrowers to enhance their sustainability management over the lending period, which in turn may lead to the maintenance and improvement of borrowers' corporate value.

4) Enable deeper engagement on sustainability with borrowers

Sustainability-Linked Loans enable lenders to have deeper dialogue with borrowers on business issues through SPTs or other sustainability goals, leading the lenders to providing solutions that meet borrowers' needs as well as business opportunities.

(iii) Environmental and Social Benefits

The environmental and social benefits of implementing Sustainability-Linked Loans include the following:

1) Contribute to global environmental conservation

The dissemination of Sustainability-Linked Loans internalizes incentives for borrowers to enhance and maintain sustainability management and expands the introduction of private sector funds for projects related to sustainable economic activities in environmental and other aspects, thus contributing to the long-term substantial reduction of greenhouse gas emissions in Japan and beyond. In addition to projects contributing to the reduction of GHG emissions, private-sector funds will be mobilized to projects related to economic activities that contribute to the formation of a sustainable society, thereby contributing to the prevention of the deterioration of natural capital, which is the foundation of long-term profits for companies.

2) Raise awareness of individuals who entrust their funds to financial institutions that provide Sustainability-Linked Loans

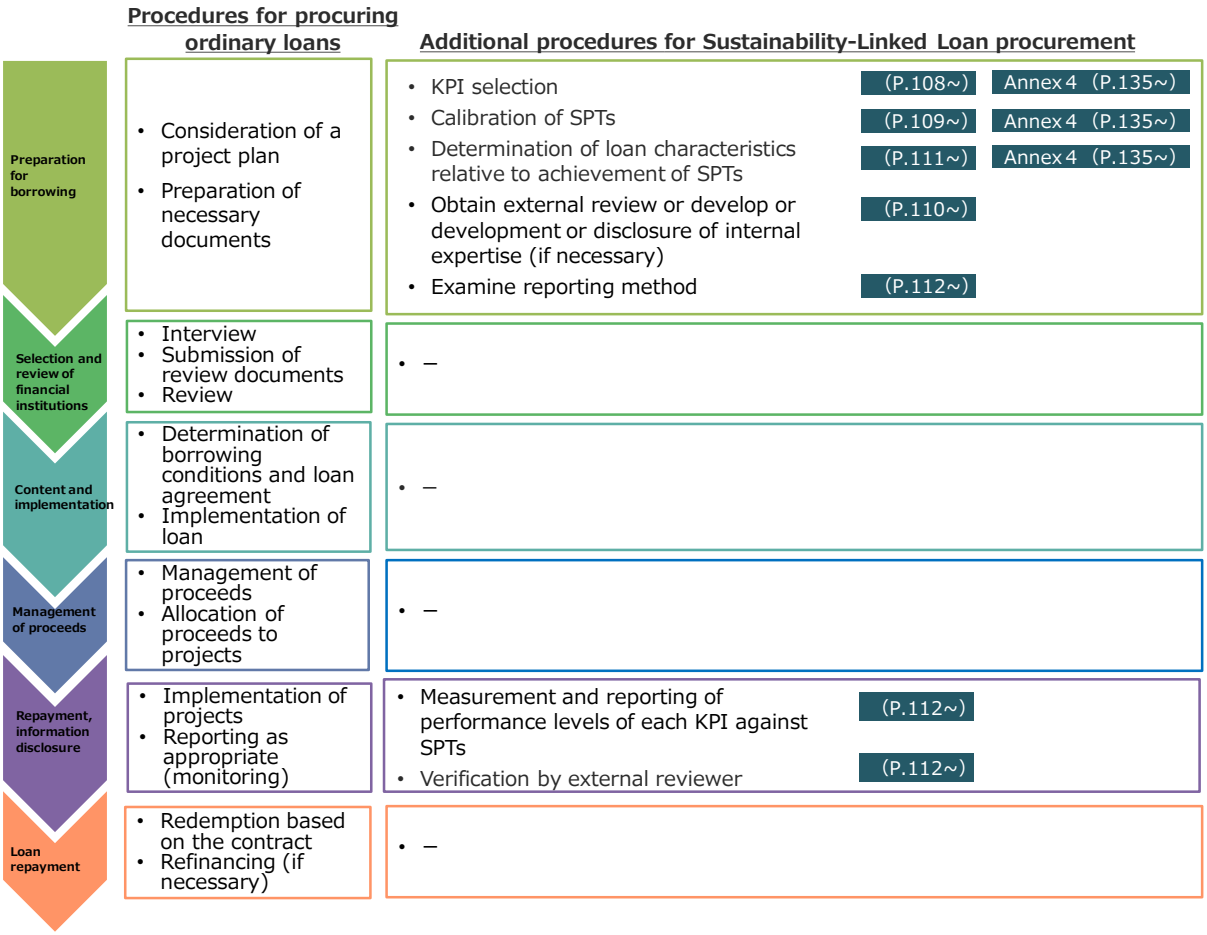
As Sustainability-Linked Loans become more widespread, financial institutions that are the trustees of assets will be motivated to more actively provide such loans by raising the awareness of individuals who deposit money in financial institutions that provide Sustainability-Linked Loans.

3) Contribute to solving social and economic issues through promotion of Sustainability-Linked Loans

Promoting projects related to economic activities that contribute to the formation of a sustainable society through the dissemination of Sustainability-Linked Loans will contribute to the realization of a sustainable society, such as reducing energy costs, strengthening energy security, revitalizing regional economies, and improving resilience in times of disaster.

3 Flow of Sustainability-Lined Loans

When companies, local governments, etc. issue Sustainability Linked Loans, additional procedures are required alongside the normal procedures for issuing corporate bonds, municipal bonds, securitized products, etc. These are illustrated in the figure below.



*The page numbers in the figure refer to the relevant sections of these guidelines.

Section 2　Expected Elements of Sustainability-Linked Loans and Examples of Possible Approaches

The borrower of Sustainability-Linked Loans should clearly inform the lender of the reasons for selecting the KPI (appropriateness and materiality) and their motivation and willingness to achieve the SPT (level of ambition, alignment with overall sustainability targets outlined in ESG/sustainability strategies, benchmarking approach, and how the borrower intends to achieve such SPT).

Borrowers are recommended to position the above information in the context of their overarching sustainability objectives, strategies, policies, etc. (medium-term business plans, sustainability strategies, etc.). The borrower is recommended to disclose any standards or certifications that the SPTs seek to comply with.

1. Selection of KPIs

[Importance of KPI Selection]

(i) Sustainability-Linked Loans are intended to enhance the sustainability of the borrower within a predefined timeline. Specifically, it seeks to improve the sustainability of the borrower by linking borrower performance, as measured by one or more KPIs, to loan terms.

(ii) The credibility of Sustainability-Linked Loans rests on the selection of KPI, and it is important to avoid the proliferation of KPIs that are not credible. KPIs should be material to the borrower's core sustainability and business strategies, the relevant environmental, social and governance challenges of the sector to which they belong, and should be under its management's control.

[Requirements for KPI]

(iii) KPIs should be:

- relevant, core and material to the borrower's overall business, and to have high strategic significance to the borrower's current and or future business operations;
- able to be measured or quantified based on a consistent methodology; and
- able to be benchmarked, utilizing external indicators and definitions as much as possible to facilitate the assessment of the SPTs ambition.

(iv) The borrower should provide a clear definition of the KPI along with the scope of its application, clarify the calculation methodology and the baseline definition, and where possible, benchmark the KPI against industry standards.

2. Calibration of SPTs

[Importance of Calibration of SPTs]

(i) The process for calibration of SPT(s) for each selected KPI is key to structuring a Sustainability-Linked Loan since that will be the expression of the level of ambition the borrower is ready to commit to, and considers realistic. The SPTs should be set in good faith and with integrity, and remain relevant throughout the loan term (as long as they apply). One of the aims of Sustainability-Linked Loans is to encourage ambitious and desirable changes in borrowers through incentives, and this should be at the basis for target setting.

[Definition of Ambition]

(ii) SPTs should be ambitious, i.e.:

- represent material improvements in the respective KPI and go beyond a "BAU: Business as Usual" trajectory;
- where possible, comparable to benchmarks or an external reference;
- be consistent with the borrower's overall sustainability/ESG strategies;
- be determined on a predefined timeline, set before the origination of the loan.

(iii) The target setting exercise should be based on a combination of the benchmarking approaches listed below:

- the borrower's own performance over time,
  measurement track record on selected KPIs (where feasible, a minimum of three years) and where possible forward-looking guidance on the KPI;
- the borrower's peers etc.,
  where available and comparable, the relative positioning of the SPTs to the performance of its industry peers (average performance, best-in-class performance), or to current industry or sector standards; and
- reference to science,
  reference to science-based scenarios and absolute standards (e.g. carbon budgets, etc.); official national, regional and international targets (Paris Agreement, net zero goals, SDGs, etc.); recognized BAT (Best Available Technology) or other proxies to determine relevant targets across environmental and social themes.

(iv) Specific examples of SPTs may include those described in Annex 4.

[Disclosures o on SPTs]

(v) The disclosures on SPTs should clearly deliver the following matters:

- timeline for achieving SPTs (including target observation date(s)/period(s), triggering events, and frequency of review of SPTs);
- where relevant, the verified baselines or science-based reference points selected to demonstrate improvement of KPIs, as well as the rationale for using such baselines or reference points (including dates and timeframes);
- where relevant, under what circumstances baseline recalculations or pro-forma adjustments will be made;
- where possible, how the borrower intends to achieve the SPTs, taking into account confidentiality and competitive considerations, the types of key measures/actions that are expected to improve performance in achieving the SPTs and the expected respective contribution, quantified as much as possible, for example, by providing a description of its sustainability/ESG strategy, supporting ESG governance and investment, business strategy, etc.; and
- other key factors beyond the borrower's direct control that may affect the achievement of SPTs.

[How to set the SPTs]

(vi) Appropriate KPIs and SPTs should be determined and set between the borrower and lenders for each transaction in order to measure the sustainability performance of the borrower.

(vii) The borrower may select one or more "Sustainability Coordinator(s)" or "Sustainability Structuring Agent(s)" to arrange its Sustainability-Linked Loan product. Appointed coordinators and agents assist with negotiating the KPIs and calibrating the SPTs with the borrower.

[Relevance of KPI/SPTs and External Review]

(viii) It is important for KPI and SPTs to be objective and the borrower is recommended to seek third party reviews on the relevance of its content.

(ix) In pre-contract reviews, external reviewers should assess the relevance, robustness and reliability of the selected KPIs, the rationale and level of ambition of the proposed SPTs, the relevance and reliability of the selected benchmarks and baselines, and the credibility of the strategies outlined to achieve them, based on scenario analysis, where relevant.

(x) In post-contract reviews, if there is a material change to the parameters, KPI methodology, or the calibration of SPTs, borrowers are encouraged to obtain an assessment of these changes by an external reviewer.

(xi) The qualification requirements for external reviewers are essentially the same as those required of external reviewers in Green Loans. The external reviewers may be auditors, environmental consultants, or independent rating agencies. External reviewers must be approved by participants in the Sustainability-Linked Loan.

[Internal review and prior explanation and report to lenders]

(xii) If a borrower seeks a third party review, the borrower is strongly recommended to demonstrate or develop in-house expertise to verify the SPTs. Borrowers are recommended to document such expertise (including relevant internal processes and staff expertise). It is also recommended that the documentation produced thereby is provided to the lender.

(xiii) When a lender cooperates with a borrower in self-assessment or provides advice, the lender is required to have expertise such as on the Equator Principles, Environmentally Rated Loans, and Positive Impact Finance.

(xiv) For a borrower to claim financing through Sustainability-Linked Loans, and to gain public recognition and acceptance as such, it will be necessary to ensure transparency on sustainability, and therefore are encouraged to publically disclose information on the self assessment results of Sustainability-Linked Loans.

3. Characteristics of Loans

[Lenders' accompanying borrowers' formulation of the evaluation and selection process]

(i) Loans traditionally are a transaction based on the relationship between the borrower and the lender(s) and smooth financing may be facilitated by the lender providing procedural guidance and support to the borrower in addressing elements of Sustainability-Linked Loans, such as the formulation of the Sustainability-Linked Loan framework.

[Linking with loan terms, etc.]

(ii) Sustainability-Linked Loans are designed to improve the sustainability of borrowers and link borrowers' sustainability performances to pre-established SPTs benchmarks with lending terms. If the linkage with the lending conditions does not necessarily seem to work as an incentive, other linkages may also be considered. In any case, it should serve as a sufficient incentive for borrowers to improve their own sustainability.

<Example of linked lending conditions>

*Possible examples are not limited to the followings

-In the case of short-term loans that are renewed every year, the interest rate can be reduced if the SPTs, set in advance by the borrower, are met in accordance with the relevant loan agreements, or raised if the targets are not met.

- In the case of long-term loans with maturities exceeding one year, interest rates or loan-related commissions can be reduced at the time when the borrower achieves the SPTs set in advance, or can be increased if they are not achieved at the time of periodic loan condition review agreed between the borrower and the lender. Other loan conditions may include, but are not limited to, an extension of the lending period and an increase in the amount of loans.
- At the time of the achievement of the SPTs, disclose the information that the SPTs have been achieved and that the company is an active enterprise in sustainability management on the lender's website, etc.
- Acquire opinions and or reviews from external review providers, indicating the achievement of SPTs or an

improvement in sustainability management.

- If the borrower fails to achieve the SPTs, efforts will be made to contribute to the improvement of social sustainability, for example, by the borrower contributing an amount equivalent to the interest rate raised.

* In the above donation case, it is also important to ensure transparency by confirming whether the activities of the recipient generate positive environmental and social impact.

4. Reporting

[Reporting to the lender and general disclosure]

(i) A borrower should, where possible, reports to the lender(s) at least once a year so that the lender(s) has access to updates on the achievement of SPTs, such as ESG ratings, by external agencies, in order for the lender(s) to monitor the performance of SPTs, and determine whether the SPTs remain ambitious and relevant to the borrower's business.

(ii) For a borrower to claim financing through Sustainability-Linked Loans, and to gain public recognition as such, it will be necessary to ensure transparency. For this reason, borrowers should publically disclose information on their SPTs when stating that they use Sustainability-Linked Loans so that third parties can evaluate their progress. When disclosing such information, it may be included in the borrower's annual report, CSR report, environmental report, sustainability report, integrated report, etc., or it may be posted on the borrower's website, etc.

(iii) The borrower is also encouraged to disclose details of their SPTs methodology and assumptions, which provide the basis for understanding the information. This does not apply to a borrower who does not state that the procured loans are Sustainability-Linked Loans.

(iv) Provided, however, that the borrower may report only to the lender, without disclosing SPTs information publicly as required, in light of competitive considerations.

(v) If the borrower is a SME and finds it difficult to publicly disclose information on the SPTs, the borrower may disclose a summary or a part of the full contents. Making the information available on the lenders website and/or the Ministry of the Environment, Japan's Green Finance Portal sites may also be considered.

(vi) It is necessary that reporting enables lenders to determine whether the SPTs are ambitious and relevant to the borrower's business and to monitor SPTs performance of borrowers. Therefore, it is important that the lenders and the borrower agree in advance on the way of reporting that meets the above.

5. Verification

(1) External verification

(i) Borrowers must have the performance levels of each SPT for each KPI verified by an independent and external institution at least once a year. Examples of verification include limited or reasonable assurance by an external institution with relevant expertise, such as an auditing firm, environmental consultant or independent rating

agency. The level of verification is adjusted individually by borrowers and lenders.

(ii) The qualification requirements for external reviewers are essentially the same as those required of external reviewers in Green Loans.

(iii)It should be noted that the external verification and the external review for evaluating KPIs and/or SPTs as described above (2. Calibration of SPTs) may address different content, and thus may require different expertise from the external institutions conducting the pre-contract review.

(iv) When external verifications are conducted, borrowers should report to the lender, the documents, etc. pertaining to the results. When appropriate, borrowers are recommended to make publically available, via their website or otherwise, the verification results provided by the external institution.

(v) Unlike pre-contract external reviews such as a second party opinion, which are recommended, post-contract verification is a necessary element of Sustainability-Linked Loans.

(vi) On the premise that SPTs meet the requirements above, there may be cases where verification for each SPT might not require additional steps to be taken by the parties (for example, where the information is already subject to annual verification by an independent and external organisation, such as a regulator).

(2) Evaluation by the lender on the situation of achievement

(i) Immediately after the reporting by the borrower is completed and, where necessary, external reviews have been conducted, the lender will evaluate the achievement of SPTs based upon disclosed or reported information.

Chapter 4 Expected Procedures for Lenders

A characteristic of Green Loans is that the loan proceeds are limited to Green Projects, that will have environmental benefits. Annex 1 of these Guidelines sets out judgement criteria to determine the projects that can be classified as Green Projects with explicit environmental benefits. The table in Annex 1 shows some illustrative examples of Green Projects.

Furthermore, Sustainability-Linked Loans are characterized by their linkage between the borrower's sophistication of sustainability management and the terms of the corporate finance. Some examples are given in Annex 4 of the Guidelines, showing SPTs that are ambitious and meaningful in terms of the materiality of the business of the subject borrower.

It should be noted that these are just possible examples, and the final decision on whether to provide funds for the Green Loans and Sustainability-Linked Loans is left to the lenders. Therefore, the roles of lenders will be extremely important for the sound expansion of Green Loans and Sustainability-Linked Loans in Japan.

First, in order for loans to generate environmental benefits and positive impacts, it is important for lenders to have their own intentions in investment and to embody these intentions in their own strategies. Lenders' manifestation of their strategies aiming for positive impacts will be a driver of this market.

Based on the above, it is recommended that, when making investment decisions concerning Green Loans, lenders appropriately assess whether the project for which the proceeds of the relevant Green Loans are to be used has any environmental benefit, the magnitude of its impact and other relevant factors. With regard to Sustainability-Linked Loans, it is recommended that appropriate assessments are made regarding whether the levels of SPTs are ambitious and meaningful enough, and the magnitude of their impacts on sustainability.

When doing so, lenders are recommended to note that Annex 1 and Annex 4 are just examples and that they should make decisions on a case-by-case basis even for the kinds of projects included in those Annexes. Each decision should be based on factors such as the conditions surrounding each project, negative impact if any, as well as international trends, through the explanations and self-evaluation by the borrower or external reviews.

Where an external review is provided, lenders are recommended to carefully consider the documents concerning the external review results and to make final loan decisions based on their own appropriate evaluation of the relevant Green Loans or Sustainability-Linked Loans without solely relying on the external review. Furthermore, after executing the Green Loans or

Sustainability-Linked Loans, lenders are recommended to continue close communication with borrowers and encourage disclosure if necessary, and to appropriately monitor, how the borrower has managed the loan proceeds, whether the expected impact has been achieved, and if the situation has changed.

To achieve the above, lenders need to have sufficient ability to make appropriate decisions. Accordingly, it is recommended that lenders have considerable insights regarding sustainable development, accumulate knowledge on Green Projects and sustainable management, and also pay full attention to international trends.

These are necessary for lenders to gain support from society as financial institutions executing ESG loans, which leads to the sound development of green finance and sustainable finance, as well as to the establishing of a sustainable society.

Chapter 5 Revision of the Guidelines

Given the objective to further develop the markets for Green Loans and Sustainability-Linked Loans, these Guidelines will be revised in response to the growth of the Japanese market, rapidly changing international trends, and any other changes that may occur.

Annex 1 Guidance on the eligibility of a Green Projects that has clear environmental benefits[48]

The Green Bond Principles developed by the International Capital Market Association (ICMA) state that eligible Green Projects for which the proceeds from Green Bonds are to be used have clear environmental benefits, and these benefits will be assessed by issuers and, where feasible, quantified by them.

In light of this, Japan's Green Bond Guidelines also require Green Bond proceeds to be used for eligible Green Projects that have clear environmental benefits and to be assessed by issuers and, where feasible, it is recommend that such benefits are quantified. In addition, the Green Bond Guidelines describe that it is the financial markets that ultimately evaluate the appropriateness of issuers' approaches for Green Bonds, including the use of proceeds.

Similarly, the Green Loan Guidelines describe that it is the parties involved in the loan transactions that ultimately evaluate the appropriateness of borrowers' approaches for the Green Loans.

There are various measures and pathways to realize a sustainable society, and therefore, there are several perspectives from which fundraisers themselves may assess whether their Green Projects are eligible and have clear environmental benefits. The perspectives indicated below aim to help fundraisers conduct a preliminary evaluation for their Green Projects. As the followings are for reference, Green Projects do not necessarily have to meet all of them at the same time. It is recommended to carry out a comprehensive assessment of the respective points, depending on the nature of each project.

The eligibility of Green Projects should be determined by comprehensively assessing the following points:

(i) It can be logically explained that the output of the project will lead to achieving the intended environmental objectives (i.e. generation of positive impact) of the Green Bond/Loan.

(ii) It is objectively evident that environmental benefits will be generated through the project implementation; for example, the indicator(s) for measuring environmental benefits is expected to improve in comparison with "BAU: Business as Usual" trajectory, or the project will clearly produce environmental benefits in light of socioeconomic conditions, such as the introduction of renewable energy facilities in the field of climate change mitigation.

(iii) In the case where a long-term goal exists at the global level, or at the country, region or sector level where the fundraiser is located or where the project is implemented, there is consistency between the project and the achievement of these long-term objectives (e.g., Japan's 2050 carbon neutrality goal) in principle, and there is no apparent inconsistency.

[48] Annex 1 consolidates and adds to Annexes 1, 2, and 4 of the 2020 Guidelines.

The project has a process by which its associated negative impacts besides its intended environmental benefits are identified, mitigated and managed.

In light of these points, examples of uses of proceeds, negative impacts, and KPIs for Green Projects are listed on the following pages based on domestic and international expertise and past issuances. The list shows examples of the projects which may be classified as eligible Green Projects based on the current Japanese market practices as well as the eligible Green Project categories in the ICMA's Green Bond Principles. As it is not a comprehensive and exhaustive list, eligible Green Projects are not limited to the examples on the list. Projects for which eligibility evaluation may be controversial, including those that are not explicitly included in the list at this point, should be evaluated by the fundraiser on a case-by-case basis by referring to the above perspectives. It will also be necessary to pay close attention to broader market voices and the development of international practices when considering whether the certain Green Projects is eligible.

With regard to negative effects, the list only includes major examples of potential negative environmental impacts. Some projects may have other negative environmental effects as well as negative social impacts. Therefore, it is important that each project is evaluated on a case-by-case basis.

These examples will be reviewed on an ongoing basis in light of the development of knowledge and market practices in Japan and overseas as well as rapidly changing international trends.

Annex: Table

Note 1: This is a list of major negative environmental impacts that could be associated with green projects. Depending on the nature of the project, there may be other negative impacts on environment. In addition, there may be negative social impacts, and it is important to evaluate such impacts on a case-by-case basis.
Note 2: For projects related to fuels that can contribute to decarbonisation, such as biomass, hydrogen and ammonia, the environmental benefits should be determined based on an assessment of GHG emissions over the entire life cycle.

General categories		Sub-categories	Examples of specific indicators for calculating environmental improvement benefits in reporting, etc.	Examples of negative environmental impacts *See Note 1
1. Projects for renewable energy (including generation, transmission, appliances, and products) *See Note 2	1-1	Renewable energy projects involving solar power, wind power, hydropower, biomass (only those whose sustainability has been confirmed or those which derive from waste material), geothermal power and so on	・CO2 emissions reduced(t-CO2) Calculate by comparing the estimated CO2 emissions (t-CO2) when the project is not implemented and after the project is implemented ・Amount of power generated by renewable energy (GWh) Amount of power generated by renewable energy at facilities constructed through the project (GWh) ・Rate of use renewable energy in the manufacturing process (%) Compare the rate of use of renewable energy in the manufacturing process (percentage of renewable energy consumption in total energy consumption) before and after the implementation of the project ・Installed capacity from renewable energy sources (GW) Capacityof renewable energy generationat facilities constructed through the project (GW)	[Solar power generation projects] ・Collapse due to erosion of the ground surface, etc. due to land development or installation on natural slopes, generation of muddy water, noise from ancillary equipment such as power conditioners, etc. ・Light pollution due to reflected light from panels ・ Adverse effects on scenery ・Ecological disruption or adverse effects on ecosystems caused by massive land development ・Negative impact of abandoned and improperly disposed power generation facilities, increased landfill disposal, and so forth [Wind power generation projects] ・Low-frequency noise and vibration ・Noise and vibration during construction ・Shade from wind turbines ・Adverse effects on ecosystems (such as bird strikes, bait trap and breeding activities) ・Ecological disruption or adverse effects on ecosystems caused by massive land development ・Adverse effects on the scenery, and so forth (In the case of offshore wind, the following points should also be noted) ・Changes in marine ecosystems ・Impacts on marine organisms [hydroelectric power generation projects] ・Reservoir water contamination and eutrophication ・Ecological disruption or adverse effects on ecosystems caused by massive land development [Biomass power generation projects] ・Increase in GHG emission in the overall lifecycle ofbiomass fuel, air pollution caused by emissions from facilities and vehicles carrying biomass fuel, adverse effects on environment at fuel-producing areas including land use change such as illegal logging, development of peatland and direct/indirect land use change, water pollution due to drainage from facilities, adverse effects on ecosystems due to waste heat generation, noise, odor during fuel storage, food conflict, and so forth [Geothermal power generation projects] ・Air pollution from hydrogen sulfide, landslides, and so forth [Overall] ・Release of toxic chemicals produced in the production process of equipment into the environment, and so on ・Dust, noise and vibration caused by construction etc Other negative environmental effects or obvious inconsistencies with long-term targets, depending on the nature of the project, should be taken into account.
	1-2	Projects to install, manage, and maintain power lines that transmit electricity generated by renewable energy, and batteries that store the electricity, adjust to demand and supply, and store energy		
	1-3	Projects to manufacture appliances and products used in the aforementioned projects, such as solar panels, power lines, and batteries		
	1-4	Projects that engage in renewable energy-derived heat utilization, such as solar heat and geothermal heat		
	1-5	Use of renewable energy for all or part of the power used in offices, plants, houses, data centers and so on		
	1-6	Projects to offer ICT solutions (including maintenance and management systems, operation systems, optimum supply-demand balancing etc.) for projects contributing to renewable energy		
2 Projects for energy efficiency (such as in new and refurbished energy efficient buildings, energy storage, district heating, smart grids, appliances and products)	2-1	Projects for the construction of highly energy efficient buildings, including the net zero energy house (ZEH) and net zero energy building (ZEB)	・CO2 emissions reduced (t-CO2) Calculate by multiplying the amount of energy reduced by the project (kL) and CO2 emission coefficient (t-CO2/kL) ・Amount of energy consumption reduced (kL, t, m3, MWh) Calculate by comparing the estimated energy consumptions (kL) when the project is not implemented and after the project is implemented. ・Number and status of environmental certification obtained The number and status of environmental certifications, such as LEED, CASBEE, and BELS, that were obtained for buildings involved in the project ・Number of energysaving facilities and products introduced The number of energy-saving facilities (e.g.LED lighting, high-efficiency refrigeration and air-conditioning equipment, heat pump equipment and high-efficiency boilers), and energy-saving products.	・Adverse effects on the surrounding environment such as noise, vibration and light pollution, associated with construction, dispersal of hazardous wastes such as asbestos, and so on ・Adverse effects arising from inappropriate disposal of old equipment and facilities, and so on ・Other negative environmental effects or obvious inconsistencies with long-term targets, depending on the nature of the project, should be taken into account.
	2-2	Projects to renovate offices, plants, and houses for better energy efficiency (including renovation to install insulation) to gain high-energy performance certifications such as the LEED, CASBEE, or BELS certifications		
	2-3	Projects to introduce highly energy efficient equipment and facilities into offices, plants, houses and data centers		
	2-4	Projects that install equipment for the effective use of energy such as energy storage, district heating and cooling, smart grids, etc		

General categories		Sub-categories	Examples of specific indicators for calculating environmental improvement benefits in reporting, etc.	Examples of negative environmental impacts *See Note 1
2 Projects for energy efficiency (such as in new and refurbished energy efficient buildings, energy storage, district heating, smart grids, appliances and products)	2-5	Projects to offer ICT solutions for energy saving (Building Energy Management System (BEMS), Home Energy Management System (HEMS), Continuous Emission Monitoring Systems (CEMS), ITS, supply chain management, etc.), and introduction of communication technology with high energy-saving performance	・CO2 emissions reduced (t-CO2) Calculate by multiplying the amount of energy reduced by the project (kL) and CO2 emission coefficient (t-CO2/kL) ・Amount of energy consumption reduced (kL, t, m3, MWh) Calculate by comparing the estimated energy consumptions (kL) when the project is not implemented and after the project is implemented. ・Number and status of environmental certification obtained The number and status of environmental certifications, such as LEED, CASBEE, and BELS, that were obtained for buildings involved in the project ・Number of energysaving facilities and products introduced The number of energy-saving facilities (e.g.LED lighting, high-efficiency refrigeration and air-conditioning equipment, heat pump equipment and high-efficiency boilers), and energy-saving products.	・Adverse effects on the surrounding environment such as noise, vibration and light pollution, associated with construction, dispersal of hazardous wastes such as asbestos, and so on ・Adverse effects arising from inappropriate disposal of old equipment and facilities, and so on ・Other negative environmental effects or obvious inconsistencies with long-term targets, depending on the nature of the project, should be taken into account.
3. Projects for pollution prevention and control (including waste water treatment, GHG control, soil remediation, 3R-based [reduce, reuse, recycle] waste management and waste-to-energy, and associated environmental monitoring analysis)	3-1	Projects that contribute to achieving a circular economy (designing and manufacturing of resourcesaving and long-life products; use of materials with environmental load reduction benefits such as recycled materials and recyclable resources; inverse manufacturing (i.e. designing and manufacturing of products based on the preplanned flow of collection, disassembly, selection and reuse); advanced collection and disposal of waste (including, recycling promotion facilities and energy recovery waste treatment facilities)	・Amount of landfill waste reduced (t) Amount of landfill waste reduced by project implementation (t) ・Rate of waste that is reused (%), amount of waste recycled (t), rate of of waste that is recycled (%) Amount of waste that is recycled (t), recycling and reuse rate of materials and other materials generated by a project. ・Amount of waste generated (%) Change in the amount of waste generated before and after the implementation of project ・Percentage of by-products and waste landfilled or incinerated (%) ・Share of recycled and reusable resources recovered (%)	・Adverse effects due to the dispersion and release of toxic chemicals and the inappropriate disposal of toxic chemicals ・Air pollution resulting from waste amd polluted soil disposal, water contamination due to wastewater ・Increased environmental load over lifecycle due to inefficient recycling practices, and so on ・Adverse effects arising from the inappropriate disposal of sludge containing toxic chemicals such as heavy metals, and so on ・Adverse effects arising from the inappropriate disposal of polluted soil Other negative environmental effects or obvious inconsistencies with long-term targets, depending on the nature of the project, should be taken into account.
	3-2	Projects to control the release of toxic chemicals into the environment by, for instance, introducing advanced facilities and technologies or using alternative products for the prevention of leaks, volatilization and infiltration of toxic chemicals	・Amount of water pollutants reduced Amount of water pollutants (hazardous substances (e.g. cadmium), chemical oxygen demand and biochemical oxygen demand (BOD)) discharge into public waters reduced by the project implementation (t) ・Amount of air pollutants reduced Amount of air pollutants (sulfur oxide (SOx), nitrogen oxide (NOx), and particulate matter) emissions in to the air reduced by the implementation of the project (t), emissions of volatile organic substances (VOCs), mercury and other hazardous air pollutants (e.g. trichloroethylene) into the atmosphere (kg).	
	3-3	Projects contributig to prevention of designing and manufacturing of products contributing to the control of fluorocarbons	・Reduction in CFC emissions (t-CO2 equivalent) Calculated by comparing the expected CFC emissions (in t-CO2 equivalent) without the project with the expected CFC emissions (in t-CO2 equivalent) after the project implementation.	
	3-4	Projects to build facilities that contribute to the advanced treatment and recycling of wastewater from plants, etc.	See 3-2	
	3-5	Projects for the treatment of polluted soil	・Reductions in environmental impact due to treatment of contaminated soil. Discharge of water pollutants into public waters, etc. (t), discharge of air pollutants into the atmosphere (t)	
	3-6	Projects to contribute to the prevention of environmental pollution by marine plastic waste	・Reuse rate of plastics (%) ・ effective utilization rate of used plastic (%) ・Percentage of biodegradation (or recycling) at end-of-life (%) ・Reduction rate of microplastic emissions from the product (%)	
	3-7	Projects to provide ICT solutions to, for instance, help manage and prevent the release of water pollutants, air pollutants and toxic chemicals and manage waste disposal, and so on	See indicators of relevant section above.	

General categories		Sub-categories	Examples of specific indicators for calculating environmental improvement benefits in reporting, etc.	Examples of negative environmental impacts *See Note 1
4. Projects for the sustainable management of living natural resources and land use (including environmentally sustainable agriculture, fishery, aquaculture, and forestry, integrated pest management (IPM), weed management, and drip-irrigation)	4-1	Projects to acquire sustainable fishery and aquaculture certifications such as the MSC (Marine Stewardship Council) and ASC (Aquaculture Stewardship Council) certifications	・Acquisition of certificates for biodiversity and ecosystem The number of MSC and ASC certificates acquired or the amount of certified marine fishery products being handled	Other negative environmental effects or obvious inconsistencies with long-term targets, depending on the nature of the project, should be taken into account.
	4-2	Projects related to conservation and restoration of aquatic resources	・Stock status of the species targeted to be fished.	
	4-3	Projects to acquire sustainable forestry certifications such as the FSC® (Forest Stewardship Council) certification	・Number of certifications obtained or area of forest certified.	
	4-4	Projects related to sustainable afforestation programmes and conservation and restoration of natural landscapes	・Area where improvements have been made on urban environments in response to climate change, for biodiversity, etc. (m2) Area where improvements have been made on urban environments in response to climate change, for biodiversity, etc., such as improvements in vegetation or ground surface in urban development (m2) ・Area of a forest managed in a sustainable manner (ha) ・Total sustainable timber production (t) Total volume of timber produced in a sustainable manner (t) ・Amount of carbon fixation (t) quantifying the amount of CO2 emission reduction	
	4-5	Projects to provide ICT solutions to contribute to the sustainable management of living natural resources and land use (including traceability systems concerning sustainability of agriculture, forestry and fishery resources), etc	See indicators of relevant section above.	
	4-6	Projects to conserve and or to create urban greenery and green networks in collaboration with local municipalities	・Area of green and water-friendly space (km2)	
	4-7	Projects that contribute to reducing negative impacts on natural resources	・Reduction in the ecological footprint of the target area before and after the introduction of the project (project) (gha) ・Ecological footprint reduction in the target area before and after the introduction of the product service (gha)	
5.Projects related to biodiversity conservation (including protection of coastal, marine and river basin environments).	5-1	Projects for the conservation of wetlands and coral reefs	・Area of healthy coral conserved by water quality improvement project (ha) Area of healthy coral, which hasn't been whitened, conserved by projects of water	・Adverse effects on ecosystems due to large-scale land development ・Disturbance to gene pool in the target area, and so on ・Adverse effects on ecosystem such as lead poisoning of wild birds caused by lead bullets used in controlling birds and animals ・Adverse effects on ecosystem such as lead poisoning of wild birds caused by lead bullets used in controlling birds and animals ・Adverse effects on ecosystem caused by scattering of seeds when removing non-native plants, and so on. ・Adverse effects on ecosystems due to large-scale land development, and so on Other negative environmental effects or obvious inconsistencies with long-term targets, depending on the nature of the project, should be taken into account.
	5-2	Projects to prevent and eliminate bird or animal damage or non-native species for prevention of damage to ecosystem inflicted by birds and animals such as deer or non-native species	・Financial damage to agriculture, forestry and fisheries and damage to area ・Number of cases of zoonotic diseases. ・Percentage of species populations affected by conflicts between people and wildlife. ・Absolute number of invasive species and/or area occupied by invasive species (m^2 or km^2, before and after the project).	
	5-3	Projects for the transformation of river walls into more natural forms	・ Total distance of river banks restored similar to natural shape by projects (km)	
	5-4	Projects to provide ICT solutions to contribute to the preservation of biodiversity (ecosystem monitoring by use of satellites, flight vehicles, IoT, etc., forest management systems, bird and animal damage prevention systems, biodiversity data analysis), and so on	See indicators of relevant section above.	

General categories		Sub-categories	Examples of specific indicators for calculating environmental improvement benefits in reporting, etc.	Examples of negative environmental impacts *See Note 1
5.Projects related to biodiversity conservation (including protection of coastal, marine and river basin environments).	5-5	Projects related to protected areas and OECMs (Other Effective area-based Conservation Measures) in terrestrial and marine areas.	・Ecosystem conservation area (ha) Area of ecosystem conservation through biodiversity conservation projects and products and services sold (ha) ・Conservation and amount used of bioresources (t) Amount of bio-resources conserved and used through products and services sold (t) ・Number of endangeredspecies recovered Number of endangered species recovered through conservation by biodiversity conservation projects and sales of products and services (population) ・Number of water treatment technologies introduced that contribute to ecosystem sustainability ・Number of ballast water treatment systems installed (systems), volume of ballast water treated (mt/vessel/year) ・Absolute number of indigenous species, flora or fauna (trees, shrubs and grasses etc) restored through the project ・Changes in the CO2, nutrient and/or pH levels for coastal vegetation, and coral reefs in % ・Acquisition of certificate for biodiversity-friendly urbanization and creation of environment The number of ABINC and JHEP (Japan Habitat Evaluation and Certification Program) certificates acquired or the area	・Adverse effects on ecosystems due to large-scale land development ・Disturbance to gene pool in the target area, and so on ・Adverse effects on ecosystem such as lead poisoning of wild birds caused by lead bullets used in controlling birds and animals ・Adverse effects on ecosystem such as lead poisoning of wild birds caused by lead bullets used in controlling birds and animals ・Adverse effects on ecosystem caused by scattering of seeds when removing non-native plants, and so on. ・Adverse effects on ecosystems due to large-scale land development, and so on Other negative environmental effects or obvious inconsistencies with long-term targets, depending on the nature of the project, should be taken into account.
	5-6	Projects related to landscape conservation and restoration.	・Absolute number of predefined target organisms and species per km² (bigger fauna) or m² (smallerfauna and flora) before and after the project ・Maintenance/safeguarding/increase of natural landscape area (including forest) in km² and in % for increase ・Maintenance/safeguarding/increase of natural landscape area in urban areas in km² and in % for increase Annual GHG emissions reduced in tCO2-e p.a.	
6. Projects for clean transportation (such as (such as public electric vehicles, public transportation, railways, bicycles, non-motorized, multi-modal transportation, infrastructure for clean energy vehicles and the reduction of harmful emissions) ※See Note 2	6-1	Projects for the development or manufacture of electrically powered vehicles (electric vehicles, fuel cell vehicles, plug-in hybrid vehicles, hybrid vehicles:) and railways, as well as infrastructure for their use.	・CO2 emissions reduced (t-CO2) Calculate by comparing the estimated CO2 emissions (t-CO2) when the project is not implemented and after the project is implemented ・Percentage of electrically powered vehicles (%) Percentage of electrically powered-vehicles in the total number of new vehicles sold (%) ・Passenger transport capacity Number of passengers (people) × Distance (km) and/or Number of passengers or Total traffic volume (t) × Distance (km) and/or Total traffic volume (t) ・Fuel consumption performance Estimated reduction in fuel consumption ・Change in traffic volume Changes in automobile traffic and rail traffic volume ・Reduction of air pollutants: particulate matter (PM), sulphur oxides (SOx), nitrogen oxides (NOx),carbon monoxide (CO), and non-methane volatile organic compounds (NMVOCs)	・Adverse effects on ecosystems due to large-scale land development ・Adverse effects on the environment arising from the inappropriate mining, use and disposal of metal including rare metal, and so on ・Increase in noise, vibration and air pollution, etc. due to concentration of transport system or operation in a specific location or during specific hours, and so on ・Noise and waste around project sites, and so on Other negative environmental effects or obvious inconsistencies with long-term targets, depending on the nature of the project, should be taken into account.
	6-2	Projects to enhance the efficiency of logistics systems by the systematic installation of logistics bases, aggregation of transportation networks, modal shifts, and coordinated transportation and delivery.		
	6-3	Projects to introduce devices (such as digital tachographs) to support eco-driving		
	6-4	Projects to develop facilities for park-and-ride, car sharing, etc.		
7. Projects for sustainable water management (including sustainable infrastructure for clean and/or drinking water, sustainable urban drainage systems, and river training and other forms of flood mitigation)	7-1	Projects to conserve the water circulation cycle, such as water source protection and penetration of rainwater into soils (including the development of green infrastructure)	・Annual water conservation (m3) Total amount of annual water use (m3) before and after the project and the rate of reduction in water use (%) before and after the project ・Effluent treatment efficiency The amount of effluent treatment before and after the project and reused amount or amount contributed to reduction (m3/a) and ratio of contribution to reduction (%)	・Adverse effects on ecosystems due to large-scale land development ・Introduction of non-native species or other inappropriate plants, and so on ・Adverse effects on ecosystems due to the release of concentrated water ・Adverse effect of global warming caused by use of equipment and methods with poor energy efficiency, and so forth Other negative environmental effects or obvious inconsistencies with long-term targets, depending on the nature of the project, should be taken into account.
	7-2	Projects to develop and improve flood prevention facilities	・Area of wetted surface reduced (ha) Reduction in the estimated area of wetted surface in the event of heavy rain from the implementation of the project (ha)	
	7-3	Projects for seawater desalination	・Number of beneficiaries (persons/households) Number of persons/households that gain access to water through the project implementation	

General categories		Sub-categories	Examples of specific indicators for calculating environmental improvement benefits in reporting, etc.	Examples of negative environmental impacts *See Note 1
8.Projects for climate change adaptation (including information support systems, such as climate observation and early warning systems)	8-1	Agriculture, forestry and fisheries Projects related to development and introduction of crop species that are resilient to climate change or introduction of agriculture with small environmental loading, etc	・Planting area (ha) of high temperature tolerant varieties (staple rice), and so on.	・Adverse effects on ecosystems due to large-scale land development, and so on Other negative environmental effects or obvious inconsistencies with long-term targets, depending on the nature of the project, should be taken into account.
	8-2	Water environment and water resources Projects related to, for instance, efficient utilization of water resources or introduction of drought management, etc	・Frequency of droughts reduced by the project (expected), and so on.	
	8-3	natural ecosystem Projects to improve green infrastructure such as adaptation based upon ecosystem or ecosystem-based disaster risk prevention reduction (ECO-DRR), etc	・Comparison of the estimated amount of damage with and without functioning ecosystem disaster prevention/mitigation functions. ・Slope failure prevention function: amount of sediment that can be trapped, etc.	
	8-4	Natural hazards and coastal areas: Projects to reinforce disaster prevention and mitigation functions of logistics, railways, ports, airports, roads, water supply infrastructure, waste disposal facilities, traffic safety facilities and private real estate etc	・Reduction in the estimated area of wetted surface in the event of heavy rain from the implementation of the project (ha) ・Percentage of coastal disaster prevention forests, etc. that are adequately preserved, etc.	
	8-5	Health: Projects related to the provision of weather information and heat index (WGBT) and alerts, dissemination and awareness-raising on prevention and remedial measures, information on outbreaks, etc., introduction of cooling and dehumidification equipment, creation of cool spots (sunshades, misting, etc.), etc.	・Reduction in the number of heatstroke deaths per year (persons), etc.	
	8-6	Industry and economic activity: Projects to ensure the sustainability of businesses such as measures against climate disasters or relocation from areas with higher climate risks, measures against heat, efforts to ensure a stable supply of raw materials etc	・Reduction in the number of customers/employees suffering from weather disaster (number of people) ・Reduction in repair costs due to weather disaster (amount of cost) ・Capacity of installed renewable energy and storage batteries (MWh), etc.	
	8-7	National and urban life: Projects related to the development of sewerage facilities to prevent internal flooding, and to the development of a system for rapid and appropriate emergency measures and restoration in the event of a water cut-off due to damage to facilities, etc.	・Percentage of improvement of combined sewer system (%) ・Number of organisations that have drawn up flood zone maps for the largest class of internal water, etc.	
	8-8	Projects concerning climate observation and monitoring or early warning system or projects to provide ICT solutions that contribute to adaptation to climate change etc	See indicators of relevant section above.	

General categories		Sub-categories	Examples of specific indicators for calculating environmental improvement benefits in reporting, etc.	Examples of negative environmental impacts *See Note 1
9. Projects concerning production technologies and processes and environmentally friendly products for the circular economy(including the development and introduction of environmentally friendlier, eco-labeled, or certified products, and packaging using recyclable or renewable resources or other materials which reduce environmental loading, or tools and services related to the circular economy) ※See Note 2	9-1	Projects to manufacture products that may obtain environmental certification or environmentally compatible products (including the development and introduction of environmentally friendly products, eco-labelled or certified products, etc., packaging made from recycled materials, renewable resources and other materials that reduce environmental impact, tools and services related to the circular economy, construction and renovation of factories and workplaces used for the manufacture of those products).	・Reduction in CO2 emissions per ton of products (t-CO2/t) Calculate by comparing CO2 emissions/ton of products (CO2 emissions (t-CO2) ÷ production volume (t)) before and after the implementation of the project ・The amount and share of recycled materials and renewable resources with environmental load reducing effect used (t) ・Amount of raw materials reduced (t) Calculate by comparing the raw materials used (t) before and after the implementation of the project ・Average number of times a reused product is used before it reaches the end of its useful life. ・Share of raw materials sourced from sustainable supply chains (%) ・Share of biodegradation or recycling at end-of-life (%) ・Share of plastic containers and packaging that are reusable, recyclable or compostable (%) ・Increase in number of clients for tools or services enabling circular economy strategies ・% increase of annual income derived through tools and services enabling circular economy	・Adverse effects on ecosystems due to large-scale land development ・Leakage of hazardous materials used in the manufacturing processes of the products ・Adverse effects on the environment arising from the inappropriate mining, use and disposal of metal including rare metal, and so on Other negative environmental effects or obvious inconsistencies with long-term targets, depending on the nature of the project, should be taken into account.
	9-2	Projects for the research, development, and introduction of technology and products that contribute to reducing the amount of greenhouse gas (technologies and products related to the projects listed in the relevant section, technologies related to the separation, recovery, storage and utilisation of hydrogen, ammonia and CO2, next-generation aircraft, ships, etc. These are examples only and are not limited to these.)	See indicators of relevant section above.	Other negative environmental effects or obvious inconsistencies with long-term targets, depending on the nature of the project, should be taken into account.
10. Projects concerning Green Buildings	10-1	Projects to newly build or renovate Green Buildings that not only are energy efficient but also address a wide range of issues for consideration such as water consumption or waste management in compliance with domestic standards or with an environmental certification that demonstrates a high level of efficiency in the environmental certification system such as CASBEE certification and LEED certification	・Energy efficiency　(kWh/m2 of GBA) Annual energy usage per total floor area, ratio of energy usage reduction or ratio of contribution to reduction (%), ratio of power generated using renewable energy at the concerned facility to energy consumption (%) ・Carbon performance Annual CO2 emission per total floor space (kgCO2/m2), annual reduction/contribution to reduction of GHG emissions (in terms of CO2), annual reduction/contribution to reduction of carbon emission (%) ・Water resource utilization ratio Annual water resource consumption per total floor space (m3/m2), annual total water consumption before and after the project (m3) or reduction in water consumption before and after the project (%), amount of rain water collected and the amount of recycled rain water (m3/a) ・Waste management Minimization of waste in total volume of annual waste, ratio of annual reused or recycled amount (%) and/or minimization of waste, annual reused and recycled amount (t) ・Number and the status of certificates acquired Types and evaluation of certificates acquired such as LEED	See relevant sections from 1 to 9. Other negative environmental effects or obvious inconsistencies with long-term targets, depending on the nature of the project, should be taken into account.

(Reference) Environmental Certifications

(*Note that these certification systems do not guarantee that certified projects are genuinely green.)

■Green Building Certifications

- **LEED certification system (Certification body: U.S. Green Building Council)**

LEED stands for **Leadership i**n Energy and Environmental Design A certification programme for Green Buildings that started in the U.S. It assesses the energy efficiency and other comprehensive environmental load of buildings through various systems covering everything from planning and design to construction, operation and maintenance of the buildings. For buildings that satisfy the required conditions, there are four certification levels—standard, silver, gold, and platinum—that are granted according to the points earned.

- **CASBEE certification system (Certification body: Institute for Building Environment and Energy Conservation)**

CASBEE stands for the Comprehensive Assessment System for Built Environment Efficiency. Buildings are evaluated and rated according to their environmental performance. This system evaluates building quality comprehensively, evaluating not only the use of energy efficient and environmentally friendly materials, but also interior comfort and harmony with the surroundings. The evaluation results are rated on a scale of one to five levels ranging from S rank (excellent) to C rank (inferior).

-**BELS certification system (Certification body: Association for Housing Performance Evaluation and Labeling)**

BELS stands for Building-Housing Energy-efficiency Labeling System. This certification system is based on the Guidelines for Building Energy Efficiency Labeling (guidelines for labeling the energy consumption of buildings) developed by the Ministry of Land, Infrastructure, Transport, and Tourism. Based on their primary energy consumption, a third-party organization objectively evaluates the energy efficiency of buildings and ranks their results on a five-star scale.

-DBJ Green Building certification system (Certification body: Development Bank of Japan and Japan Real Estate Institute) A certification system which makes, not only an evaluation on the environmental performance of the property, but a comprehensive evaluation including the wellbeing of tenants, risk management regarding disaster reduction and crime prevention, consideration for community and surrounding environment, and cooperation with stakeholders. The evaluation results are rated between five stars (building with excellent considerations, and nationally top of the class) and one star (building with sufficient considerations). If the evaluation regarding the environmental performance items can be confirmed in the total evaluation, it is considered to be effective as an environmental certification.

- BREEAM certification system (Certification Body: Building Research Establishment)

BREEAM stands for Building Research Establishment Environmental Assessment Method. This certification system was developed by the Building Research Establishment (BRE) and an energy and environment consultancy ECD Energy and Environment in 1990. Assessment is conducted on a maximum of ten category issues: management, health and wellbeing, energy, transport, water, materials, land use, waste, pollution, innovation. Assessment results are given on a five-point scale ranging from Outstanding to Pass. It is the world's first environmental performance assessment indicator and is used widely in and out of

the United Kingdom.

■Certifications for Sustainable Forestry and Fishery

- **FSC certification system (Certification body: Forest Stewardship Council)**

This is an international certification system of lumber and lumber products sourced from forests managed responsibly in a manner that is appropriate from a viewpoint of environmental conservation, consistent with social interests and economically sustainable. This system consists of two types of certifications supported by various stakeholders worldwide, namely, Forest Management (FM) certification, which is based upon principles and standards of responsible forest management, and Chain of Custody (CoC) certification, which covers the processing and distribution processes.

- PEFC certification system (Certification body: Sustainable Green Ecosystem Council)

Like the FSC Certification System, the PEFC Certification System consists of two types of certifications, FM Certification and CoC certification. The PEFC Certification System is a forest certification system for its participant countries, which are mainly European and American countries, to mutually recognize forest certification systems that each participant establishes on a national or regional basis. In addition to the foregoing, Japan has its own forest certification system called SGEC (Sustainable Green Ecosystem Council).

- **MSC certification system (Certification body: Marine Stewardship Council)**

This certification system comprises two types of certifications: fishery certification, which concerns fishing operators who conduct appropriately-managed fishery business with appropriate attention paid to the aquatic resource and ecosystem from the viewpoint of sustainability, and COC (Chain-of-Custody) certification, which concerns distribution and processing operators and aims to prevent the marine products captured by operators with the fishery certification from being mixed with other marine products during the distribution and processing process.

- ASC certification system (Certification body: Aquaculture Stewardship Council)

This system certifies that aqua farmers manage environmentally-friendly aqua farms with consideration for local communities. An ASC label is attached to marine products produced by certified aqua farms. As of June 2022, there are twelve types of certifications for aquaculture products produced (salmon, seriola/cobia, freshwater trout, seabass/seabream/meagre, flatfish, tropical marine finfish, tilapia, pangasius, bivalves, abalone, shrimp, seaweed).

- MEI certification system (Certification body: Marine Eco-Label Japan Council)

Abbreviated name for "Marine Eco-Label. It is a system operated by the Marine Eco-Label Japan Council in Japan to certify fishery and aquaculture producers who are actively engaged in the sustainable use of marine resources and management that takes environmental and ecosystem conservation into consideration, as well as businesses that process and distribute marine products from such producers.

■Certification consideration for biodiversity in community development/environment creation

- ABINC certification system (Certification body:ABINC（Association for Business Innovation in harmony with Nature and Community）)

ABINC certification mainly evaluates and certifies the area, quality and form of the green space within corporate premises that will contribute to the biodiversity, sustainable maintenance and management of

the green space and communication with stakeholders through utilization of the green space. Certification is given in relation to urban development, shopping centers, manufacturing plants, apartment houses, housing estates with detached houses, logistics facilities and city blocks.

- SEGES Certification System (Social and Environmental Green Evaluation System)

(Certification body: SEGES Evaluation and Certification Committee)

SEGES stands for Social and Environmental Green Evaluation System. This is a certification system for greenery projects owned and created by companies that contribute to society and the environment, such as the mitigation of global warming and heat island phenomena, conservation of local ecosystems, conservation and creation of good landscapes, community building with local communities, and the development of safe and secure urban areas. If the evaluation regarding the environmental performance items can be confirmed in the total evaluation, it is considered to be effective as an environmental certification.

- SITES Certification System (Certification body: Green Business Certification Inc.(GBCI)

Abbreviation for the Sustainable SITES Initiative. SITES is a certification system that comprehensively evaluates the sustainability of the landscape certified by the U.S. Green Business Certification Inc.(GBCI.). The ratings are on a four-point scale, from SITES Platinum to SITES Certified. From the initial stage of the plan to design, construction, operation, and management stages, the entire project is evaluated, and biodiversity conservation, water resource conservation, energy conservation, resource circulation, heat island phenomenon mitigation, health promotion, education, etc. are considered as evaluation viewpoints. If the evaluation regarding the environmental performance items can be confirmed in the total evaluation, it is considered to be effective as an environmental certification.

-JHEP certification system (Certified body: Ecosystem Conservation Society-Japan (ECSJ))

Abbreviated name for Japan Habitat Evaluation and Certification Program. It is the only certification system in Japan that enables objective and quantitative evaluation, certification, and visualization of the level of contribution to biodiversity conservation. JHEP certification system can be applied to initiatives in a wide range of fields, from real estate development to maintenance and management of business facilities, forest maintenance, and biotope creation, at any stage from design to completion of construction, regardless of whether it is a new or existing property, and the evaluation results can be easily compared.

Annex 2 Examples of calculation methods of environmental benefits

The following is not an exhaustive list and only shows some of the examples. Since each example is simplified to facilitate easy understanding, it should be noted that it may not be appropriate to apply these methods without modification in individual projects depending on individual businesses.

1. Cases where the reduction in CO2 emissions serves as an indicator of environmental benefits from solar power generation projects	
Precondition	• The CO2 emission coefficient for electricity is based on the latest emission coefficient of the retail electric utility with which the company has a contract. (Emission Coefficient by Electricity Utility - FY 2020 Results - (available on Ministry of the Environment, Japan's website)) * The CO2 emission coefficient is assumed to be 0.433t-CO2/MWh in this case. • Annual power generation: 2,000 MWh/year ・Annual power consumption by auxiliary equipment: 10 MWh/year
Calculation method referenced	Operation rules of the certification system of CO2 emissions reduction through the use of Green Energy (Posted on the official websites of Agency for Natural Resources and Energy and Ministry of the Environment, Japan)
Calculation formula	(2,000 MWh/year - 10 MWh/year) x 0.433 t - CO2/MWh = 862 t-CO2/year Reduction in CO2 emissions = (annual power generation - annual power consumption by auxiliary equipment) x electricity-related CO2 emissions coefficient
2. Cases where the reduction in CO2 emissions serves as the indicator of environmental benefits from wind power generation projects	
Precondition	• The CO2 emission coefficient for electricity is based on the latest emission coefficient of the retail electric utility with which the company has a contract. (Emission Coefficient by Electricity Utility - FY 2020 Results - (available on Ministry of the Environment, Japan's website)) * The CO2 emission coefficient is assumed to be 0.433t-CO2/MWh in this case. • Annual power generation: 3,000 MWh/year ・Annual power consumption by auxiliary equipment: 10 MWh/year
Calculation method referenced	Operation rules of the certification system of CO2 emissions reduction through the use of Green Energy (Posted on the official websites of Agency for Natural Resources and Energy and Ministry of the Environment, Japan)
Calculation formula	(3,000 MWh/year - 10 MWh/year) x 0.433 t -CO2/MWh = 1,295 t-CO2/year Reduction in CO2 emissions = (annual power generation - annual power consumption by auxiliary equipment) x electricity-related CO2 emissions coefficient
3. Cases where the reduction in CO2 emissions serves as the indicator of environmental benefits from woody biomass power generation projects	
Precondition	• The CO2 emission coefficient for electricity is based on the latest emission coefficient of the retail electric utility with which the company has a contract. (Emission Coefficient by Electricity Utility - FY 2020 Results - (available on Ministry of the Environment, Japan's website)) * The CO2 emission coefficient is assumed to be 0.433t-CO2/MWh in this case. • Annual power generation: 20,000 MWh/year ・Annual power consumption by auxiliary equipment: 300 MWh/year
Calculation method referenced	Operation rules of the certification system of CO2 emissions reduction through the use of Green Energy (Posted on the official websites of Agency for Natural Resources and Energy and Ministry of the Environment, Japan)

Calculation formula	(20,000 MWh/year - 300 MWh/year) x 0.433 t-CO2/MWh = 8,530 t-CO2/year Reduction in CO2 emissions = (annual power generation - annual power consumption by auxiliary equipment) x electricity-related CO2 emissions coefficient
4. Cases where the reduction in CO2 emissions serves as the indicator of environmental benefits from small and medium hydroelectric power generation projects	
Precondition	• The CO2 emission coefficient for electricity is based on the latest emission coefficient of the retail electric utility with which the company has a contract. (Emission Coefficient by Electricity Utility - FY 2020 Results - (available on Ministry of the Environment, Japan's website)) * The CO2 emission coefficient is assumed to be 0.433t-CO2/MWh in this case. • Annual power generation: 10,000 MWh/year • Annual power consumption by auxiliary equipment: 100 MWh/year
Calculation method referenced	Operation rules of the certification system of CO2 emissions reduction through the use of Green Energy (Posted on the official websites of Agency for Natural Resources and Energy and Ministry of the Environment, Japan)
Calculation formula	(10,000 MWh/year - 100 MWh/year) x 0.433 t-CO2/MWh = 4,287 t-CO2/year Reduction in CO2 emissions = (annual power generation - annual power consumption by auxiliary equipment) x electricity-related CO2 emissions coefficient
5. Cases where the reduction in CO2 emissions serves as the indicator of environmental benefits from geothermal power generation projects	
Precondition	• The CO2 emission coefficient for electricity is based on the latest emission coefficient of the retail electric utility with which the company has a contract. (Emission Coefficient by Electricity Utility - FY 2020 Results - (available on Ministry of the Environment, Japan's website)) * The CO2 emission coefficient is assumed to be 0.433t-CO2/MWh in this case. • Annual power generation: 80,000 MWh/year • Annual power consumption by auxiliary equipment: 900 MWh/year
Calculation method referenced	Operation rules of the certification system of CO2 emissions reduction through the use of Green Energy (Posted on the official websites of Agency for Natural Resources and Energy and Ministry of the Environment, Japan)
Calculation formula	(80,000 MWh/year - 900 MWh/year) x 0.433 t-CO2/MWh = 34,250 t-CO2/year Reduction in CO2 emissions = (annual power generation - annual power consumption by auxiliary equipment) x electricity-related CO2 emissions coefficient
6. Cases where the reduction in CO2 emissions of the entire building serves as the indicator of environmental benefits from projects to introduce energy efficient equipment and cogeneration systems into buildings	
Precondition	<Before introduction> • Steam is produced by a city gas boiler while all electricity is purchased • Annual power consumption: 3,000 MWh/year • Annual city gas consumption: 356,000 Nm^3/year <After introduction> • Some of the equipment are changed to energy efficient equipment • City gas boilers are removed and a heat pump is installed when electrification was possible, and cogeneration equipment is installed when electrification was not possible. • The installation of energy-saving equipment reduces annual electricity consumption by 10%. • Annual power consumption: 200 MWh/year • Annual city gas consumption: 800,000Nm^3/year ・Annual steam production: 14,400GJ/year • Unit calorific value of city gas: 44.8 GJ/1000 Nm^3 ・City gas-related carbon emission coefficient: 0.0136 tC/GJ • Annual power generation: 2,500 MWh/year • The CO2 emission coefficient for electricity is based on the latest emission coefficient of the retail electric utility with which the company has a contract. (Emission Coefficient by Electricity Utility - FY 2020 Results - (available on Ministry of the Environment, Japan's website)) * The CO2 emission coefficient is assumed to be 0.433t-CO2/MWh in this case.

Calculation method referenced	"Manual for the Calculation and Reporting of Greenhouse Gas Emissions (Ver. 4.2), Second Edition: Methods to Calculate Greenhouse Gas Emissions" (Posted on the official website of the Ministry of the Environment, Japan) * In the case of using hydrogen as a fuel, the following serve as a useful reference. "Guidelines for Assessing Effect of Greenhouse Gas Emissions Reduction in Hydrogen Supply Chain Ver. 2.1", "Tool for Calculating Effect of Greenhouse Gas Emissions Reduction in Hydrogen Supply Chain Ver. 1.0" (Posted on the official website of the Ministry of the Environment, Japan)
Calculation formula	(3,000 MWh x 0.433 t-CO2/MWh + 356,000 Nm^3 x 44.8 GJ/1000 Nm^3 x 0.0136 tC/GJ x 44/12) - (200MWh x 0.433 t-CO2/MWh + 800,000 Nm^3 x 44.8 GJ/1000 Nm^3 x 0.0136 tC/GJ x 44/12) ＝1220.5 t-CO2/year Reduction in CO2 emissions = (annual power consumption before renovation x power emission coefficient + annual city gas consumption before renovation x unit city gas calorific value x city gas carbon emission coefficient x 44/12) - (annual power consumption after renovation x power emission coefficient + annual fuel consumption after renovation x unit calorific value of fuel x fuel carbon emission coefficient x 44/12) * 44/12 is a coefficient to convert the amount of carbon emissions to the amount of CO2 emissions. * The above calculation example is for a case of cogeneration using city gas as fuel. The fuel-related carbon emission coefficient can be set as zero when hydrogen produced from renewable energy electricity or biogas is used. * In addition, from the viewpoint of ensuring consistency between the implementation of the target projects and the achievement of long-term objectives, it is encouraged to gradually reduce the city gas-related carbon emission coefficient to zero by introducing syngas.
7. Cases where the reduction in the BOD load serves as the indicator of environmental benefits from projects to renew facilities to treat effluent discharged from plants into public water bodies	
Precondition	• Average volume of wastewater discharged per day: 1,000 m^3/day • Annual average BOD of effluent discharged from effluent treatment facilities: 20 mg/L (before project implementation) ® 10 mg/L (after project implementation) • Number of days plants operated per year: 365 days
Calculation method referenced	Environmental Reporting Guidelines (2018 edition) (Posted on the official website of the Ministry of the Environment, Japan)
Calculation formula	(20 mg/L - 10 mg/L) x 1/1,000,000 (unit conversion mg ® kg) x 1,000 (m^3/day) x1,000 (unit conversion m^3 ® L) x 365 (days/year) = 3,650 kg/year Reduction in BOD load = (annual average BOD of effluent before renewal of effluent treatment facilities - annual average BOD of effluent after renewal of effluent treatment facilities) x average amount of effluent per day x number of days plants operated per year
8. Cases where the amount of carbon absorbed by trees serves as the indicator of environmental benefits from planting projects	
Precondition	• Target area: 200 ha ・Final cutting area per year: 2 ha • Annual amount of growth: 2.9 m^3/ha/year • Target: Cedar (Magnification coefficient: 1.23, ratio of the above-ground part to the under-ground part: 0.25, bulk density: 0.3140 t/m^3, carbon content: 0.51) • The land use category before tree planting was agricultural land (general farmland) and the baseline amount of carbon absorbed was 0 t-CO2/year. ("National Greenhouse Gas Inventory Report of JAPAN, April 2021 edition" posted on the official website of National Institute for Environmental Studies)
Calculation method referenced	"How to view the carbon absorbed by forests: Development of calculation and reporting systems for carbon absorption by forests as required by the Kyoto Protocol" (Posted on the official websites of the Ministry of Agriculture, Forestry and Fisheries and the Forestry and Forest Products Research Institute)

Calculation formula	[(2.9 m^3/ha/year x (200ha-2 ha)) x 1.23 x (1 + 0.25) x 0.3140 t/m^3 x 0.51] - 0 = 141 t-C/year [Annual carbon absorbed at a planting site = an increase in trunk volume x magnification coefficient x (1 + ratio of the above-ground part to the under-ground part) x bulk density x carbon content] - annual baseline amount of carbon absorbed When converting the amount of carbon to the weight of carbon dioxide, multiply the above formula by 44/12.
9. Cases where the reduction in CO2 emissions serves as the indicator of environmental benefits from cargo transport projects concerning a modal shift from road to rail transport	
Precondition	• Annual total volume of cargo transport: 8,000,000 tkm/year • CO2 emission intensity for cargo vehicles: 0.225 kg-CO2/tkm • CO2 emission intensity for freight railways: 0.018 kg-CO2/tkm (Posted on the official website of the Ministry of Land, Infrastructure, Transport and Tourism)
Calculation method referenced	"Joint guidelines on methods for calculating carbon dioxide emissions in the logistics sector" (Posted on the official websites of the Ministry of Economy, Trade and Industry and the Ministry of Land, Infrastructure, Transport and Tourism)
Calculation formula	8,000,000 tkm/year × (0.225 kg-CO2/tkm－0.018 kg-CO2/tkm) × 1/1,000 (unit conversion kg®t) ＝1,656 t-CO2/year CO2 emission reduction = Annual total volume of cargo transport x (CO2 emission intensity for cargo vehicles - CO2 emission intensity for freight railways)
10. Cases where the reduction in CO2 emissions by electric cars compared to gasoline cars serves as the indicator of environmental benefits from projects to offer loans to new purchasers of electric cars	
Precondition	• Number of cars targeted for loans: 1,000 • Average fuel economy of gasoline cars: 21.2 km/L (Posted on the official website of the Ministry of Land, Infrastructure, Transport and Tourism) • Annual average mileage of gasoline cars (private cars): 10,000 km/year (Posted on the official website of the Ministry of Land, Infrastructure, Transport and Tourism) • Unit calorific value of gasoline: 34.6 MJ/L ・Gasoline-related carbon emission coefficient: 0.0183 kg-C/MJ ("Manual for the Calculation and Reporting of Greenhouse Gas Emissions (Ver. 4.8), Second Edition: Methods to calculate greenhouse gas emissions" (Posted on the official website of the Ministry of the Environment, Japan)) • Electric electricity economy of electric cars to be introduced: 6 km/kWh • The CO2 emission coefficient for electricity is based on the latest emission coefficient of the retail electric utility with which the company has a contract. (Emission Coefficient by Electricity Utility - FY 2020 Results - (available on Ministry of the Environment, Japan's website)) * The CO2 emission coefficient is assumed to be 0.433t-CO2/MWh in this case.
Calculation method referenced	"Joint guidelines on methods for calculating carbon dioxide emissions in the logistics sector" (Posted on the official websites of the Ministry of Economy, Trade and Industry and the Ministry of Land, Infrastructure, Transport and Tourism)
Calculation formula	{(1,000 vehicles × 10,000 km/year)/21.2 km/L} × 34.6 MJ/L × 0.0183 kg-C/MJ × 44/12 × (1/1,000 (unit conversion kg ® t)) - {(1,000 unit×10,000 km/year)/6 km/kWh} × 0.433 t-CO2/MWh × (1/1,000 (unit conversion MWh ® kWh))＝373 t-CO2/year Reduction in CO2 emissions = (((number of cars targeted for loans x annual average mileage (km/year)) ÷ fuel economy of gasoline cars) x unit calorific value of gasoline x gasoline carbon emission coefficient x 44/12) - ((number of cars targeted for loans x annual average mileage (km/year)) ÷ electricity economy of electric cars x electricity-related CO2 emissions coefficient) * 44/12 is a coefficient to convert the amount of carbon emissions to the amount of CO2 emissions.
11. Cases where a decrease in the estimated wetted surface area and estimated number of affected houses are used as indicators of environmental benefits from projects to construct discharge channels to control submergence in the event of river flooding, which are conducted as part of a climate change adaptation project	

Precondition	• Estimated wetted surface area: about 100 ha (before construction) ® about 25 ha(after construction) • Estimated number of affected houses: about 500 houses (before construction) ®about 95 houses (after construction)
Calculation method referenced	None. * Refer to the following for the mapping method of assumed flood prone areas. "Preparation Manual of the Notional Flooded Areas (Ver. 4)" (Posted on the official website of the Ministry of Land, Infrastructure, Transport and Tourism) "Preparation Manual of the Expected Flooding of Small and Medium Rivers (Ver. 2)" (Posted on the official website of the Ministry of Land, Infrastructure, Transport and Tourism)
Calculation formula	Decrease in flooded area = estimated wetted surface area before construction - estimated wetted surface area after construction = about 100 ha - about 25 ha = about 75 ha Estimated decrease in the number of affected houses = estimated number of affected houses before construction - estimated number of affected houses after construction = about 500 houses - about 95 houses = about 405 houses
12. Cases where the reduction in CO2 emissions per ton of products serves as the indicator of environmental benefits from projects to enhance energy efficiency of the manufacturing process at plants	
Precondition	• Annual product manufacturing volume: 15,000 t/year • The CO2 emission coefficient for electricity is based on the latest emission coefficient of the retail electric utility with which the company has a contract. (Emission Coefficient by Electricity Utility - FY 2020 Results - (available on Ministry of the Environment, Japan's website)) * The CO2 emission coefficient is assumed to be 0.433t-CO2/MWh in this case. • Annual power consumption: 5,000 MWh/year (before revamp) ® 4,000 MWh/year (after revamp) • Annual A-type heavy oil consumption: 800 kL/year (before revamp) ® 600kL/year (after revamp) • Unit calorific value of A-type heavy oil: 39.1 GJ/kL A-type heavy oil-related carbon emission coefficient: 0.0189 tC/GJ
Calculation method referenced	"Manual for the Calculation and Reporting of Greenhouse Gas Emissions (Ver. 4.8), Second Edition: Methods to calculate greenhouse gas emissions" (Posted on the official website of the Ministry of the Environment, Japan)
Calculation formula	(5,000MWh × 0.433t-CO2/MWh + 800kL × 39.1GJ/kL × 0.0189tC/GJ × 44/12) / 15,000t -(4,000MWh × 0.433t-CO2/MWh + 600kL × 39.1GJ/kL × 0.0189tC/GJ × 44/12) / 15,000t ＝ 0.06t-CO2/t Decrease in emission intensity (CO2 emissions per ton of product manufactured) = (annual power consumption before revamp x power emission coefficient + annual A-type heavy oil consumption before revamp x unit calorific value of A-type heavy oil x A-type heavy oil-related carbon emission coefficient x 44/12) ÷ annual product manufacturing volume–(annual power consumption after revamp x power emission coefficient + annual A-type heavy oil consumption after revamp x unit calorific value of A-type heavy oil x A-type heavy oil-related carbon emission coefficient x44/12) ÷ annual product manufacturing volume * 44/12 is a coefficient to convert the amount of carbon emissions to the amount of CO2 emissions.
13. Cases where a reduction in the amount of plastics used serves as the indicator of environmental benefits from projects to introduce equipment to produce packaging materials with less plastics at packaging manufacturing plants	
Precondition	• ・Amount of plastics used per packaging material (intensity index using the usage before introduction as 100%) : 100% (before introduction) ® 60% (after introduction) • ・The current amount of plastics used to produce 100,000 pieces of packaging materials (before introduction): 5 tons
Calculation method referenced	None.
Calculation formula	A reduction in the amount of plastics used to produce 100,000 pieces of packaging materials = 5 tons x (100% - 60%) = 2 tons

14. Cases where the absorption amount of greenhouse gases as a result of greening serves as the indicator for environmental benefits from projects for absorption by urban greening	
Precondition	• To account for the absorption amount of greenhouse gases by the greening of the project site (planting of tall trees)
Calculation method referenced	'Low Carbon City Planning Practical Handbook (Resources)' (Ministry of Land, Infrastructure, Transport and Tourism, City Bureau, City Planning Division) p. 18-19
Calculation formula	(Regions other than Hokkaido Prefecture) CO2 absorption (t-CO2/year) =0.0385 (t-CO2/per tree per year) x number of tall trees (trees) (Hokkaido Prefecture) CO2 absorption (t-CO2/year) =0.0359 (t-CO2/per tree per year) x number of tall trees (trees) If the number of tall trees are unknown within the project site, calculation based on area is also possible as an alternative. Refer to page 18 and page 19 of the 'Low Carbon City Planning Practical Handbook (Resources)' for details.

* For the best available technology (BAT: Best Available Technology) for reducing greenhouse gas emissions, the measures stipulated in the Guidelines for Emission Reduction, etc. based on Article 25 of the Act on Promotion of Global Warming Countermeasures (Act No. 117 of 1998) can be used as reference.

Annex 3 Examples of Reporting[49]

The following is not an exhaustive list and only shows some of the examples.

1) Examples of information disclosure by Green Projects

Project category	Possible Projects	Outline	Progress	Signed amount (amount financed by issuer[50])	Share of total project financing	Share of the sector component in total proceeds[51]	Amount of proceeds allocated till now[52]	Average Portfolio lifetime	Environmental benefits
Projects for renewable energy	Wind power generation	Project to construct wind power facilities, generate power at the facilities, and sell electricity through feed-in tariffs (FIT)	Under construction (To start operations in MM/YYYY)	XXX million yen	XX%	XX%	XXX million yen	XX years	Amount of CO_2 reduced ZZ t-CO_2/year
Projects for pollution prevention and control	Recycling of waste	Project to construct fuel manufacturing facilities and manufacture fuel via waste recycling	Construction to start in MM/YYYY						Reduction in the waste incinerated: XX t/year
Projects for the sustainable management of living natural resources	Planting	Project to plant trees to conserve and recover ecosystems in the XX region	Completed						Area of forests regenerated by planting: X ha
			Total	XXX million yen	XX%	XX%	XXX million yen	-	

* The currently unallocated proceeds (XXX million yen) will be allocated in MM and M'M'/YYYY along with the progress of the construction of the waste recycling facilities. Until then, the unallocated proceeds will be managed as cash or cash equivalents.
* Details of each project are given below. (omitted)

[49] 'Handbook – Harmonized Framework for Impact Reporting June 2021' and 'Guidance Handbook January 2022' by ICMA provides reference information on disclosure items and methods therefor and other matters.
[50] The amount intended to be invested in the project at the time of issuance
[51] Reporting is required when a project includes more than one category (e.g., A project including elements of renewable energy and energy efficiency)
[52] Amount actually invested in the project by the time of reporting.

2) Example of information disclosure (aggregated information) by category

Project category	Possible Projects	Number of projects	Signed amount (amount financed by issuer)	Share of Total Portfolio Financing	Share of the sector component in total proceeds	Allocated amount	Average portfolio life	Environmental benefits (CO_2 reduction)
Projects for renewable energy	Solar power generation	XX	XXX million yen	XX%	XX%	XXX million yen	XX years	ZZ t-CO_2/year
	Wind power generation	XX	XXX million yen	XX%	XX%	XXX million yen	XX years	ZZ t-CO_2/year
	Manufacture of batteries	XX	XXX million yen	XX%	XX%	XXX million yen	XX years	ZZ t-CO_2/year
	Subtotal	XX (Refinancing: xx)	XXX million yen	XX%	XX%	XXX million yen (Refinancing: XXX million yen)	XX years	ZZ t-CO_2/year
Projects for energy efficiency	Construction of new energy efficient buildings							
	Renovation of buildings for better energy efficiency							
	Subtotal							
Projects for eco-efficient products, manufacturing technologies, and processes	Manufacturing of products that meet the requirements of environmental certifications							
	Subtotal							
Total		XX (Refinancing: xx)	YYY million yen	XX%	XX%	YYY million yen (Refinancing: YYY million yen)	-	ZZ t-CO_2/year

YYY million yen		

*The following are a few examples of typical projects. (omitted)

Annex 4 Examples of KPIs

Below are examples of KPIs in general categories and in each category for setting up KPIs to measure the achievement of the SPTs. The following is not an exhaustive list and only shows some of the examples. KPI should be set according to the nature of business of issuers or borrowers, and KPI may not be limited to environment-related KPIs, but may also be set from the perspective of social aspects, etc.

< Examples of KPIs >

Category	Case
Energy Efficiency	➢ Annual amount of energy saving (electric power MWh/GWh, other energies GJ/TJ) ➢ Annual reduction of greenhouse gas emissions/contribution to reduction (amount in CO2 equivalent) ➢ Energy performance per business unit (MWh/m², MWh/unit, MWh/t, etc.) and so on
Greenhouse gas emission	• Reductions in greenhouse gas emissions in relation to products manufactured or sold by those seeking financing or to the production or manufacturing cycle • Reduction not only of the amount of greenhouse gases emitted by the company itself but also reduction of the total amount of greenhouse gases emitted in the entire supply chain from the upstream through downstream of its business activities (total of Scope 1 (amount emitted directly from the plants, offices, vehicles, etc. of the company), Scope 2 (amount emitted indirectly from the electricity and other energy consumed by the company) and Scope 3 (amount of other indirect emission)) (MJ, MWh, pkm, tkm, carbon intensity per employee or per investment, or absolute quantity) • Proportion of capital investments in low carbon and carbon removal technologies in line with the net-zero scenario (%) and so on
Renewable energy	• Increases in the amount of renewable energy generated or used by those seeking financing (GW, %) • Proportion of renewable energy production in total energy production (%) • GHG emissions avoided in relation to renewable energy production and so on
Water consumption	• Water savings made by those seeking financing • Improvement of water recycle rate of those seeking financing and so on
Waste water treatment	• Amount of waste water treated or reused by those seeking financing and so on
Sustainable sourcing	• Increases in the sourcing of certified sustainable raw materials/supplies • Percentage of products using sustainability-conscious packaging and so on
Circular economy	• Increase or decrease in amount of input of natural resources • Recycling rates in waste disposal facilities • Use of recycled materials and renewable resources, etc. with impact to reduce environmental loading • Shift to products with effect to enhance reduction of wastes

	and so on
Sustainable agriculture/food/forestry	• Improvements in production or sourcing of sustainable products and/or quality products using appropriate labels or certifications (km^2, ton, %) • Increase in the products concerning which the traceability regarding sustainability has been established (%) • Percentage of forests managed under the certification system (FSC, PEFC, etc.) (%) and so on
Biodiversity	• Improvement of conservation and protection of biodiversity and ecosystem (increase in land areas of tree planting or reforestation, increase in sustainable forest area certified by FSC, etc., increase in sourcing of marine products certified by MSC, ASC, etc., increase in the sales of products and services that contribute to preservation of biodiversity) (km^2 or %, etc.) • Absolute number of protected・restored indigenous species, flora or fauna and so on
Adaptation to climate change	• Expansion of areas of agricultural land converted from desert or devastated land • Decrease or reduction of (financial, humanitarian, and ecological) damages due to extreme weather events after investments in adaptation or resilience enhancement initiatives (amount or %) • Reduction in the number of days of interruption of supply chain and/or business activities due to meteorological phenomena and so on
Global ESG assessment[53]	• Improvements in the ESG rating of those seeking financing or achievement of a recognized ESG certification and so on

*In addition to the above KPIs, KPIs can also be selected from the social viewpoints (human rights and community engagement, affordable housing, data security, employee health and safety, employee engagement, diversity and inclusion, employee training, etc.) and governance (corporate ethics, strong corporate governance and transparency, etc).[54]

<Model Cases of Relation between Sustainability Targets and SPTs>

Several model cases are presented for the establishment of sustainability goals and related SPTs by issuers and borrowers. Each case is intended to serve as a reference for materiality and the relationship between sustainability targets and SPTs, but the following are not exhaustive. The sustainability targets and related SPTs should be set based on the goals and circumstances of each company through the dialogue between those seeking financing and stakeholders such as financial institutions. KPI should be set according to the nature of business of issuers or borrowers, and KPI may not be limited to environment-related KPIs, but may also be set from the perspective of social aspects, etc.

[53] When using ESG ratings or certifications, it is necessary to clarify whether to use the entire rating or a specific E, S, or G portion of the rating. If no other KPIs are involved, it is expected to explain why ESG ratings or certifications are the best indicators to reflect the ESG issues of those seeking financing.
[54] Sustainability-Linked Loan Principles Annex 1 – KPIs

Model Case 1

Company A, which is a manufacturing company, regards environmental considerations as an important issue from the viewpoint of both business issues and risks in its business strategy and medium-term business plan. It established a reduction target toward achievement of the 1.5°C target, and obtained Science Based Targets (SBT)[55] certification. Based upon SBT, it designated as SPTs the previously-established reduction target of the emission of greenhouse gases from its operation and manufacturing of its products.

Model Case 2

Company B, engaging in the food manufacturing business, regards human health and sustainable diet as an important issue in its business strategies. Thus, it established as SPTs maintenance of the sales composition ratio of the products with certification given by a private certification system for the companies that conduct business activities with consideration to environment and society above a certain level and the evaluation of ESG factors.

Model Case 3

Company C, which is a retailer, has a vision for sustainability management to achieve both the growth of its business and the development of society. In an effort to realize a low-carbon society, it has been proactively working toward reduction of CO2 emission, and as a part of such effort, it joined RE100[56]. As a participant to RE100 is obliged to meet 100% of its energy requirements with renewable energy, it designated achievement of it as an SPT.

Model Case 4

Company D, which operates hotels, considers social issues such as human rights as well as environmental issues such as climate change as important issues for the company. Thus, it sets SPTs as the reduction targets of Scope 1, 2, and 3 GHG emission, which are rated by the SPO as best practices within the sector. The company obtains the SBTi certification under the 1.5°C target for Scope 1 and 2, and under the 2 °C target for Scope 3.

Model Case 5

Company E, which is a mineral mining company, has set sustainable and responsible mining as its sustainability/ESG strategy. As part of this strategy, it has set targets of the proportion of women in senior management positions as well as GHG emissions reduction.

The absolute and relative values (CO2e/oz) of Scopes 1 and 2 for GHG reduction were set as SPTs, and these targets are in line with the SBTi certification for 1.5 °C target. In terms of the proportion of women in senior management, the company set the increase to a certain level by 2030 as SPTs.

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[55] A global initiative calling on companies to set green house gas reduction targets in line with reduction scenarios based on science to limit global warming to less than 2°C

[56] A global initiative where companies commit to sourcing 100% of their energy use in renewables

Model Case 6

Company F, which is a manufacturer of active pharmaceutical ingredients, has adopted the Sustainability Vision as one of the 3 pillars of its Sustainability Strategy, stating that “Ensuring sustainable consumption and production patterns” in SDG 12 is close to its own values. It has set as SPTs a reduction in freshwater use, a reduction in the amount of waste disposed of/recycled (%), and GHG emission reduction.