Tokyo Sustainability Bonds Framework

August 2024

Tokyo Metropolitan Government

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1. Issuance of the Tokyo Sustainability Bonds

The Sustainable Development Goals (SDGs), which consist of 17 goals to achieve a sustainable world, were adopted at the United Nations Summit in September 2015. Expectations are held on initiatives taken by not only national governments but also local governments to reach these goals.

In March 2021, the Tokyo Metropolitan Government (hereinafter referred to as the "TMG") formulated Future Tokyo: Tokyo's Long-Term Strategy (hereinafter referred to as "Future Tokyo"). This lays out the visions for Tokyo in the 2040s, the strategies to be implemented up to 2030 to achieve those visions, and projects to carry out such strategies. Future Tokyo sets out the direction of policies to be taken to realize a sustainable Tokyo that strikes a balance between maturity and ongoing growth, and is people-centered, because it is people who generate Tokyo's growth. This is in line with the SDGs' core message of creating an inclusive society where no one is left behind. Under this concept, the policies of the TMG revolve around realizing a Tokyo that cares for people, is full of diversity and inclusiveness, and is where people shine.

Meanwhile, to address the climate crisis, which is worsening on a global scale, the Paris Agreement was established as a framework for climate change measures after 2020, setting a common goal of keeping the rise in the global average temperature below 2°C above pre-industrial levels and pursuing efforts to limit the temperature increase below 1.5°C. Additionally, at COP26 in 2021, countries around the world pledged to strive to achieve the 1.5°C target.

Against this backdrop, as the mandate of a major global city, Tokyo is making full-scale efforts to tackle the climate crisis. The TMG has adopted the goal of realizing a "Zero Emission Tokyo" to contribute to the worldwide push to achieve net-zero carbon emissions by 2050, and declared a "Carbon Half" initiative that aims to cut greenhouse gas emissions in half by 2030.

In order to greatly accelerate these efforts, the TMG began issuing Tokyo Green Bonds in October 2017—the first such endeavor by a local government in Japan—followed by Tokyo Social Bonds in 2021. The TMG has strongly promoted measures backed by the support provided by companies and investors through their investments, while also working to stimulate the sustainable finance market by accelerating the trend of utilizing market funds to find solutions to domestic environmental and societal challenges. And, beginning in 2024, with the aim to attract investment funding from a wide range of sources not only in Japan but also abroad, the TMG will issue Tokyo Sustainability Bonds as international bonds.

Through such efforts, the TMG will realize a bright future Tokyo where people shine and contribute to achievement of the SDGs.

The Tokyo Sustainability Bonds are compliant with the Green Bond Principles 2021 (hereinafter referred to as GBP), the Social Bond Principles 2023 (hereinafter referred to as SBP), and the Sustainability Bond Guidelines 2021 (hereinafter referred to as SBG) of the International Capital Market Association (hereinafter referred to as ICMA).

The purpose of issuing Tokyo Sustainability Bonds

1. To strongly promote the TMG's measures backed by the support provided by companies and investors through their investment in Tokyo Sustainability Bonds.
2. To stimulate the sustainable finance market by accelerating the trend of utilizing market funds to find solutions to environmental and societal challenges.
3. To realize a bright future Tokyo where people shine and contribute to achieving the SDGs, through these efforts.

2. About the Tokyo Sustainability Bonds Framework

For issuance of the Tokyo Sustainability Bonds, the TMG has established the Tokyo Sustainability Bonds Framework as follows, which, in accordance with the ICMA's GBP, SBP, and SBG, comprises components including Use of Proceeds, Process for Project Evaluation and Selection, Management of Proceeds, and Reporting.

(1) Use of Proceeds

Proceeds from the issuance of the Tokyo Sustainability Bonds are scheduled to be allocated to the green projects listed in Appendix 1 and the social projects listed in Appendix 2.

Proceeds will be allocated to finance expenditure for new projects or to refinance expenditure for existing projects, as indicated in Appendices 1 and 2. Regarding the refinancing of existing expenditure, for projects that began implementation within the five fiscal years prior to the fiscal year containing the bond's issue date, proceeds will be allocated to capital expenditures (CAPEX).

(2) Process for Project Evaluation and Selection

If stipulated in the Local Government Finance Act and other laws, a local government can issue municipal bonds as provided in the budget.[1] The budget must be approved by the local government's assembly before the start of a fiscal year.[2]

Not only are such procedures necessary to issue the Tokyo Sustainability Bonds as TMG bonds, but the feasibility of the projects and the sustainability of their outcomes are also verified during the process of budgeting. The specific process is as follows:

(a) Evaluation and Selection Criteria

Projects to be allocated Tokyo Sustainability Bond funding in a fiscal year are selected through an evaluation of their eligibility based on criteria covering environmental, social, and governance aspects, which are listed in the table below.

In addition, in order to reduce environmental and social risks associated with the implementation of a project, confirmation is made that the following measures have been taken:

- Compliance with environmental laws and regulations, and implementation of environmental impact assessments where necessary
- Provision of adequate explanations to local residents

[1] Local Autonomy Act, Article 230

[2] Local Autonomy Act, Article 211

・ Eco-friendly procurement of materials, implementation of measures for environmentally hazardous substances, waste management, and occupational safety considerations

(b) Evaluation and Selection of Green Projects

For green projects, the evaluation process confirms a project's alignment with environmental project categories based on the Tokyo Environmental Master Plan (September 2022), as detailed in Attachment 1. Priority is especially given to E-1 and E-2 (environmental aspects). (For details regarding the evaluation method, refer to the examples of methods for evaluating environmental benefits listed in Attachment 2.)

(c) Evaluation and Selection of Social Projects

For social projects, the evaluation process confirms the social issue addressed by a project, and priority is especially given to S-1 and S-2 (social aspects). In this context, consideration is given to whether a project is for individuals in need of social support and can be expected to have clear social benefits (generating new benefits or maintaining existing benefits), and whether such benefits can be assessed quantitatively.

Criteria for the Evaluation & Selection of Eligible Projects

No.	Evaluation Aspect	Evaluation Item	Perspective
E-1	Environmental	Clarity of positive impact	The project's positive environmental outcomes can be measured quantitatively, or are clear.
E-2	Environmental	Reduction of negative impact	Initiatives are in place to reduce the negative impacts of the project.
S-1	Social	Clarity of positive impact	The project's positive social outcomes can be measured quantitatively, or are clear.
S-2	Social	Reduction of negative impact	Initiatives are in place to reduce the negative impacts of the project.
G-1	Governance	Policy & regulatory compliance	The project's plan complies with laws and guidelines such as the Future Tokyo strategy and Japan's Local Government Finance Act.

G-2	Governance	Feasibility /urgency	Special note is made of the feasible and urgent nature of the project.
G-3	Governance	Effect sustainability	The positive environmental/social outcomes of the project will be sustainable.

(d) Evaluation and Selection Procedures and Division of Roles

① The Bureau of Finance requests the relevant bureaus to identify projects that could be eligible for Tokyo Sustainability Bond funding.

② The bureaus confirm projects believed to meet the requirements of Tokyo Sustainability Bond funding and submit their information to the Bureau of Finance.

③ The Bureau of Finance examines the content of the projects and narrows down the list of potential eligible projects.

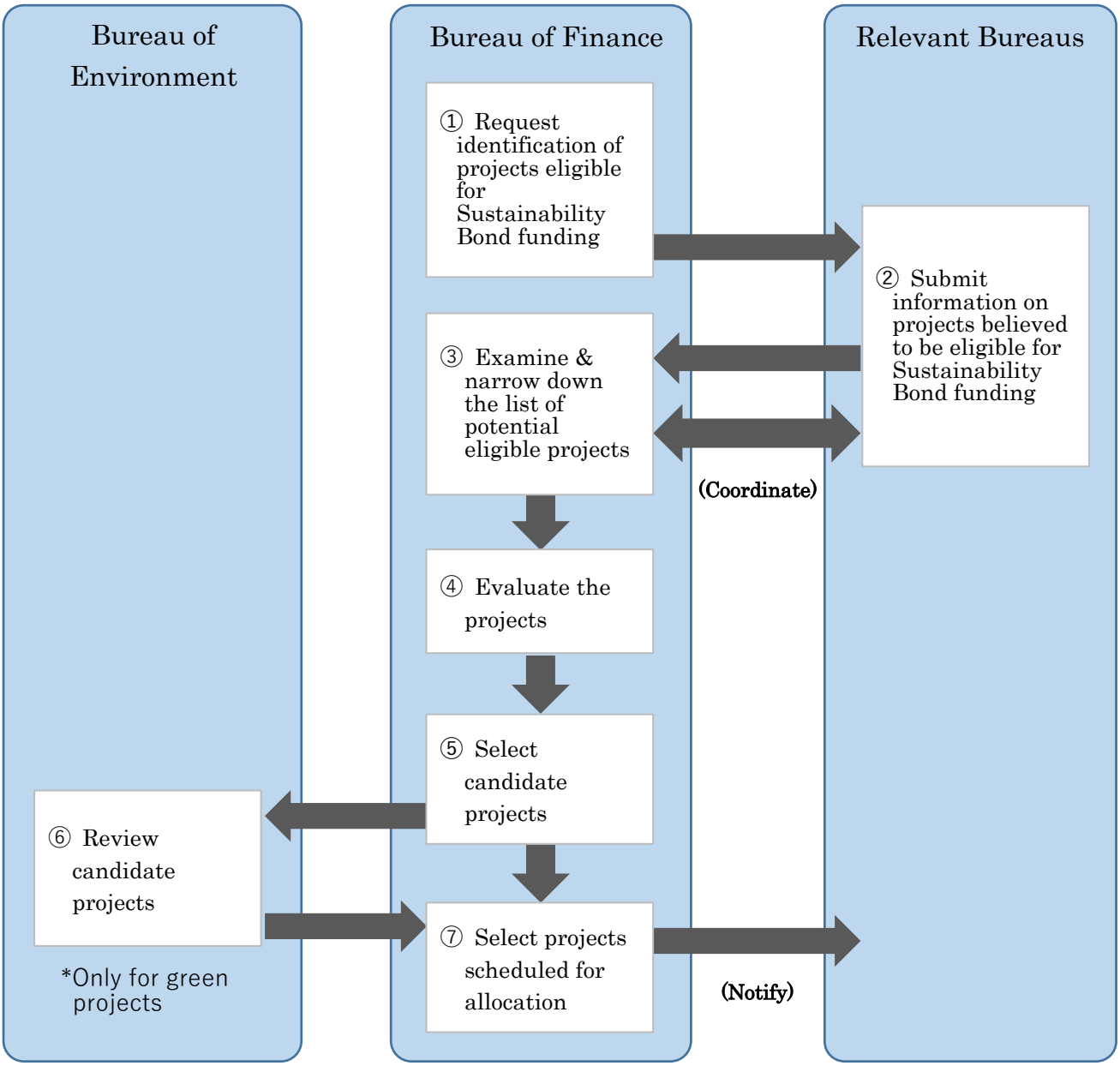
④ The Bureau of Finance evaluates each of the projects. In the evaluation, based on information submitted on a project, it is confirmed that the project addresses an environmental or social issue, and evaluations are conducted using criteria such as eligibility from the environmental, social, and governance aspects. The measures to reduce environmental and social risks associated with the implementation of the project are confirmed.

⑤ The Bureau of Finance selects candidate projects.

⑥ The Bureau of Environment reviews candidate projects from an environmental standpoint (only for green projects).

⑦ The Bureau of Finance selects the projects to be allocated funds (and notifies the bureaus of their decision).

Evaluation and Selection Procedure for Projects to Be Allocated Funds



(e) Monitoring

In cooperation with the bureaus and other parties, confirmation that the projects are properly implemented will be made at least once in the following fiscal year. In the event that a problem arises, the situation will be discussed with the relevant bureau and action will be taken promptly to improve the situation.

(3) Management of Proceeds

Local governments must be able to correlate expenditures in each fiscal year to their annual revenue.[3] Therefore, in principle, all proceeds of the Tokyo Sustainability Bonds are apportioned within that fiscal year to projects scheduled for allocation. Information on the planned allocated projects and the amount they will be allocated shall be determined after confirmation of relevant matters, including their implementation status, by the Bureau of Finance with the bureau responsible for the project. This information will be disclosed before the issuance of the bonds.

The Bureau of Finance manages the progress of the projects so that the situation of Tokyo Sustainability Bonds fund allocation can be tracked when necessary, confirms in the following fiscal year that all proceeds have been allocated to the projects, and discloses this information based on the methods of "(4) Reporting."

After the Tokyo Sustainability Bonds are issued, the proceeds will be managed by classifying them into accounting categories based on the TMG's budget rules to clarify their use. Until the proceeds are allocated, they will be managed under the TMG Public Money Management Policy. Moreover, at the end of each fiscal year, for all revenue and expenditures, including those related to projects funded by the Tokyo Sustainability Bonds, settlement-related documents will be created and submitted to the Tokyo Metropolitan Audit and Inspection Commissioners for inspection. The documents will be submitted together with the comments of the commissioners to the Tokyo Metropolitan Assembly for certification.[4]

[3] Local Autonomy Act, Article 208

[4] Local Autonomy Act, Article 233

(4) Reporting

By the end of the fiscal year following the year the Tokyo Sustainability Bonds were issued, the outcomes of and other information concerning the projects to which the proceeds were allocated will be disclosed. Specifically, the information will be disclosed on the TMG website through the following procedures. The contents of the disclosures are shown in the table below.

(a) The Bureau of Finance confirms the expenditures situation of projects scheduled for allocation with the relevant bureaus.

(b) The Bureau of Finance finalizes the breakdown of the allocated proceeds of the Tokyo Sustainability Bonds.

(c) The outcomes of the allocation are compiled and the impact report is prepared.

(d) (c) is disclosed on the TMG website.

(e) If Tokyo Sustainability Bond proceeds will be allocated to a single project over multiple fiscal years, information pertaining to this must also be disclosed.

Contents of Information Disclosure on Tokyo Sustainability Bonds

No.	Content	Timing
1	Tokyo Sustainability Bonds Framework	At all times
2	Details of the decision on projects to be allocated proceeds ・Project category ・Project name (including refinanced projects) ・Expected impact ・Amount to be allocated (refinanced) <The following is also disclosed in the case of refinancing> ・Age of asset ・Remaining useful life of asset (Authorized remaining bond redemption years*)	Before issuance
3	Outcomes of projects to which proceeds were allocated and impact report ・Project category ・Project name (including refinanced projects) ・Impact ・Amount allocated (refinanced) <The following is also disclosed in the case of refinancing> ・Age of asset ・Remaining useful life of asset (Authorized remaining bond redemption years*)	Fiscal year following issuance
4	Details of any significant events such as a change in a project scheduled for allocation	Upon occurrence of an event

* Authorized remaining bond redemption years is obtained by subtracting the age of the asset from the maximum years for bond redemption (within the years of useful life of the public or official facility which is planned to be built using the funds procured from this local government bond) submitted to and approved by the Ministry of Internal Affairs and Communications at the time of the issuance of the local government bond.

3. External Review

(1) Pre-issuance External Review (Second Party Opinion)

The TMG has obtained a second party opinion (hereinafter referred to as SPO) from Moody's regarding the alignment with the ICMA's GBP, SBP, and SBG. The SPO is available on the TMG website.

(2) Post-issuance External Review

In the fiscal year following the issuance, the TMG will select an organization that can conduct an external review, and upon sharing information, such as the contents in "2 (4) Reporting," will be subject to a review and will disclose the results.

Appendix 1

Green projects scheduled to be allocated proceeds from
the Tokyo Sustainability Bonds to be issued in FY2024

■ Projects to be financed

No.	Environmental Project Category	Project	Impact Reporting Metrics
1	Realization of zero emissions through decarbonization of energy systems and the sustainable use of resources	Heat island countermeasures (improving heat reflection and water retention of roads)	Length of cool pavement installed (km)
		Installation of PV systems in metropolitan housing	Anticipated annual power generation by installed PV facilities (kWh)
		Development of small and medium-sized rivers	Completion of river development (%), Storage capacity of regulating reservoirs (㎥)
2	Realization of a prosperous society in harmony with nature that continues to benefit from ecosystem services	Development of metropolitan parks	Developed land area (㎡)
		Greening of waterfronts	Developed land area (㎡)

■ Projects to be refinanced (from FY 2019 Tokyo Green Bonds)

No.	Environmental Project Category	Project	Impact Reporting Metrics
1	Realization of zero emissions through decarbonization of energy systems and the sustainable use of resources	Heat island countermeasures (improving heat reflection and water retention of roads)	Length of cool pavement installed (km)
		Development of small and medium-sized rivers	Completion of river development (%), Storage capacity of regulating reservoirs (㎥)
2	Realization of a prosperous society in harmony with nature that continues to benefit from ecosystem services	Development of metropolitan parks	Developed land area (㎡)
		Greening of waterfronts	Developed land area (㎡)

Appendix 2

Social projects scheduled to be allocated proceeds from
the Tokyo Sustainability Bonds to be issued in FY2024

■ Projects to be financed

No.	Project category	Project	Social issue addressed	Target Population	Impact Reporting Metrics
1	Disaster countermeasures for public facilities and infrastructure	Removal of utility poles	Strengthening urban disaster management functions (Securing safe and enjoyable walking spaces) (Creating a scenic city)	Those who may be affected by blocked roads or power line breaks due to collapsed utility poles in the event of a natural disaster (Road users including those who use strollers and wheelchairs)	Length completed
		Earthquake and water resistance of river facilities	Securing seismic and water resistance of river facilities in order to protect the low-lying eastern part of Tokyo from flooding resulting from earthquake-triggered tsunami and other causes	Residents of the low-lying eastern part of Tokyo	Length completed
2	Measures for aging public facilities and infrastructure	Life extension of bridges	Maintaining and managing sustainable infrastructure and securing the safety and security of users	Local residents and others who use metropolitan roads	Cumulative number of life-extension projects begun
		Improvement of the Tokyo islands' internet environment	Securing a stable internet environment in the Tokyo islands	Local residents (island habitants)	Number of upgraded islands
3	Building an educational environment to fully draw out the individuality and potentials of each student	Construction and renovation of schools for special needs education	Supporting proactive efforts toward the independence and social participation of young children and students with disabilities	Pre-schoolers and elementary, middle school and high school students with disabilities	School capacity

Attachment 1

Environmental Project Categories of Green Projects

Listed below are environmental project categories based on the Tokyo Environmental Master Plan (September 2022), examples of eligible green projects by category, and expected environmental benefits.

No.	Environmental Project Category	Eligible Project Examples	Expected Environmental Benefits
1	Realization of zero emissions through decarbonization of energy systems and the sustainable use of resources	■ Reduce the greenhouse gas emissions of office buildings ■ Promote energy conservation and management ■ Promote the use of zero emission vehicles ■ Adopt next-generation transportation and promote bicycle use ■ Increase the usage rate of renewable energy sources such as solar, geothermal, sewer heat, and hydrogen energies. ■ Reduce resource loss and increase the use of eco-friendly materials ■ Promote the 3 Rs (reduce, reuse and recycle) for the recycling of waste ■ Increase the utilization of materials that help reduce environmental impacts ■ Implement adaptation measures for rising temperatures in urban areas ■ Implement measures for floods and natural disasters ■ Improve roads (measures for heat reflection and water retention) ■ Reduce water pollution and conserve groundwater	■ Reduction of CO_2 emissions ■ Reduction in use of energy ■ Increase in use of renewable energy sources ■ Reduction of waste generation ■ Increase in recycled waste ■ Enhanced ability to adapt to rising temperatures ■ Enhanced ability to respond to natural disasters such as floods and tsunami ■ Enhanced heat reflective and water retentive properties of roads ■ Improvement of water quality
2	Realization of a prosperous society in harmony with nature that continues to benefit from ecosystem services	■ Create and protect green spaces (e.g., park development, urban greening, and forest development) ■ Conserve biodiversity (e.g., tidal flat development in marine parks)	■ Increase in green land area ■ Increase in land area developed
3	Realization of a better urban environment that ensures the safety and health of Tokyo residents	■ Reduce air pollution ■ Promote soil contamination countermeasures ■ Promote treatment of hazardous waste, etc.	■ Improvement of air/soil quality ■ Reduction of CO_2 emissions ■ Increase in amount of recycled waste

Attachment 2

Examples of methods for evaluating the environmental benefits of eligible green projects (by environmental category)

1. Realization of zero emissions through decarbonization of energy systems and the sustainable use of resources

(1) Reduce the greenhouse gas emissions of office buildings

Expected environmental benefit	Evaluation method example
Reduction of CO_2 emissions	■ Installation of energy efficient equipment ・ Calculate the reduction in CO_2 emissions through the difference in energy use by existing equipment and the energy efficient equipment to be newly installed

(2) Promote energy conservation and management

Expected environmental benefit	Evaluation method examples
Reduction in use of energy	■ Installation of LEDs ・ Calculate by comparing the use of energy by conventional lighting and LEDs Calculation formula: Number of LED lights × reduction of energy consumption per LED light (kW) × hours used per year ■ Implementation of ZEBs (zero emission buildings) ・ Calculate energy use that can be reduced through energy savings (and the addition of energy creation in some cases) by ZEBs

(3) Promote the use of zero emission vehicles

Expected environmental benefit	Evaluation method example
Reduction of CO_2 emissions	■ Introduction of zero emission vehicles ・ Calculate the reduction in CO_2 emissions through the difference in CO_2 emissions of existing vehicles and vehicles to be newly introduced

(4) Adopt next-generation transportation and promote bicycle use

Expected environmental benefit	Evaluation method example
Reduction in use of energy	■ Adoption of energy efficient subway cars ・ Calculate reduction of energy use from the difference in fuel efficiency between existing cars and those to be newly introduced Calculation formula: Annual power consumption for operation of cars before renewal (number of train formations × number of cars per train formation × total operating distance of a passenger car × passenger car energy consumption per km operating distance) minus the annual power consumption for operation of cars newly introduced

(5) Increase the usage rate of renewable energy sources such as solar, geothermal, sewer heat, and hydrogen energies.

Expected environmental benefit	Evaluation method example
Increase in use of renewable energy sources	■ Solar power systems ・ Calculate power generation from the renewable energy system to be introduced, through the average annual amount of sunlight, loss factor, system capacity and annual number of generation days Calculation formula: Annual average amount of sunlight shining on the installed panel per day × loss factor × system capacity × annual days of generation ■ Introduction of hydroelectric power systems ・ Calculate power generation from the new renewable energy system to be introduced, through the system's capacity, utilization rate and annual hours of generation Calculation formula: System capacity (kW) × utilization rate (%) × annual hours of generation ■ Installation of storage batteries ・ Capacity and output of storage batteries to be installed

(6) Reduce resource loss and increase the use of eco-friendly materials

Expected environmental benefit	Evaluation method example
Reduction of CO_2 emissions Increase in recycled waste	■ Use of sustainable wall materials to reduce resource loss ・ Amount of surface area planned to be built using eco-friendly materials

(7) Promote the 3 Rs (reduce, reuse and recycle) for the recycling of waste

Expected environmental benefit	Evaluation method example
Reduction of CO_2 emissions Increase in recycled waste	■ Circular use of waste through the 3 Rs (reduce, reuse and recycle) ・ Amount of waste planned for circular useAmount of recycled waste being planned

(8) Increase the utilization of materials that help reduce environmental impacts

Expected environmental benefit	Evaluation method example
Reduction of CO_2 emissions Reduction of waste generation	■ Utilization of materials that help reduce environmental impacts ・ Amount of eco-friendly materials planned to be used

(9) Implement adaptation measures for rising temperatures in urban areas

Expected environmental benefit	Evaluation method example
Enhanced ability to adapt to rising temperatures	■ Installation of cooling mists and sunshades along streets ・ Amount of land area planned for installation

(10) Implement measures for floods and natural disasters

Expected environmental benefit	Evaluation method example
Enhanced ability to respond to natural disasters such as floods and tsunamis	■ Development of facilities for storms, tsunamis and earthquakes ・ Amount of land area planned to be developed ・ Length planned to be developed ・ Percentage of planned development completed ・ Storage capacity after implementation of the planned project ・ Number of locations planned to be developed

(11) Improve roads (measures for heat reflection and water retention)

Expected environmental benefit	Evaluation method example
Enhanced heat reflective and water retentive properties of roads	■ Pavement to enhance heat reflection and water retention ・ Land area planned to be developed ・ Length planned to be developed

(12) Reduce water pollution and conserve groundwater

Expected environmental benefit	Evaluation method examples
Improvement of water quality	■ Building of rainwater storage facilities ・ Planned storage capacity after project implementation ■ Introduction of advanced sewage treatment facilities ・ Planned capacity of introduced facilities

2. Realization of a prosperous society in harmony with nature that continues to benefit from ecosystem services

(1) Create and protect green spaces (e.g., park development, urban greening, and forest development)

Expected environmental benefit	Evaluation method examples
Increase in green land area Increase in land area developed	■ Greening of areas within facilities and on their grounds, and metropolitan parks ・ Amount of land area planned as green spaces ・ Amount of land area planned for development ■ Planting of roadside trees ・ Amount of land area planned for development ・ Length planned for development

(2) Conserve biodiversity (e.g., tidal flat development in marine parks)

Expected environmental benefit	Evaluation method example
Increase in land area developed	■ Development of tidal flats in marine parks ・ Amount of land area planned for development

3. Realization of a better urban environment that ensures the safety and health of Tokyo residents

(1) Reduce air pollution

Expected environmental benefit	Evaluation method examples
Improvement of air quality	■ Introduction of low polluting non-step buses that can reduce air pollutants such as NO_x and CO ・ Calculate by comparing the regulated emission caps of scrapped vehicles and vehicles that will be introduced through the project

（2） Promote soil contamination countermeasures

Expected environmental benefit	Evaluation method example
Improvement of soil quality	■ Soil contamination countermeasures ・ Amount of land area planned for implementation of countermeasures

（3） Promote treatment of hazardous waste, etc.

Expected environmental benefit	Evaluation method example
Reduction of CO_2 emissions Increase in recycled waste	■ Treatment of hazardous waste ・ Amount of hazardous waste planned to be treated

(Remarks)

・ Informed by the Green Bond Guidelines of the Ministry of Environment and other sources, the above examples of methods to evaluate environmental benefits have been designed to match the contents of green projects considered to be eligible projects.
In the study of concrete methods of evaluation, when necessary, benchmarks presented by external organizations (e.g., figures provided by equipment manufacturers) will be used.