

Tokyo Green Bond Impact Report

October
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- This report is intended to provide general information on Tokyo Green Bonds and not to distribute or offer for subscription any specific bonds.
- Although this report is based on a set of data deemed reliable, we do not guarantee its accuracy or integrity. The future prospects and forecasts contained in this report fall within reasonable range in the view of the TMG; we are not in a position to guarantee their realization.
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The increasingly severe impacts of climate change are putting our daily lives at risk. With the aim of overcoming this crisis, the world is advancing toward the common goal raised in the Paris Agreement of limiting global temperature increase to 1.5°C.

In order to contribute to the world's goal of achieving net-zero carbon emissions by 2050, the Tokyo Metropolitan Government has announced that Tokyo will halve its greenhouse gas emissions by 2030 with the ultimate aim of realizing "Zero Emission Tokyo." Working together with the people and businesses of Tokyo, we are devoting our full resources to addressing this challenge.



The power of finance can help find solutions to social problems. New flows in finance open paths for society to take. In order to significantly accelerate actions for carbon neutrality, in 2017, the Tokyo Metropolitan Government became the first local government in Japan to issue green bonds. The Tokyo Green Finance Initiative (TGFI), our strategic initiative for the growth of green finance, is positioned at the core of our financial vision. Starting this fiscal year, the green bonds will be issued in an upgraded form as Tokyo Green and Blue Bonds.

Meanwhile, amid the rapid global expansion of green finance, concerns about greenwashing are also rising. The quality of sustainability strategy as a whole is in question, making it necessary to secure more transparency, such as confirming the situation of funds procured after bond issuance and better reporting.

The Tokyo Metropolitan Government has prepared the Tokyo Green Bond Impact Report to show in an easy-to-understand manner the situation and environmental effects of projects that were allocated funds raised through bond issuance, and also provide a total picture of the environmental goals and individual projects.

As a city standing on the front line of climate change response, along with continuing to take concrete actions for decarbonization, we will also engage in developing the sustainable finance market through the issuance of green bonds.

I hope this report will serve to deepen your understanding of Tokyo's green bonds.

KOIKE Yuriko
Governor of Tokyo

The Future Tokyo Green Bonds aim to realize

(From the Tokyo Green Bonds Series 7 Framework)

- 1 **Assertively promote TMG's environmental measures** through the additional support derived from Tokyo residents and enterprises' **investment in Tokyo Green Bonds**.
- 2 **Create a virtuous cycle between the environment and the economy** by accelerating the trend of utilizing market funds for environmental measures taken in Japan.
- 3 Aim to **realize "Zero Emission Tokyo" and Sustainable Recovery** through these efforts and **contribute to achieving the SDGs**.



Environmental Targets and Initiatives of TMG

Developments related to climate change

Rising anthropogenic CO₂ emissions are having a greater global impact on climate change, including extreme weather events. The climate crisis now affects the world, Japan, and of course Tokyo.

TMG recognizes that we are currently facing a climate crisis and will implement concrete policies and effective measures as well as calling for the understanding and cooperation of all of Tokyo's citizens and continuing to stand against this climate crisis.

Climate change events in recent years

Hurricane



State of Texas, July 2024

- Major Disaster declared
- Roads flooded in a wide area and power outage affecting some 2 million households

Heatwaves



Heart of Tokyo, July 2024

- 12 days with temperatures reaching 35°C
- Highest monthly average temperature in Japan in 126 years since records began (28.7°C)

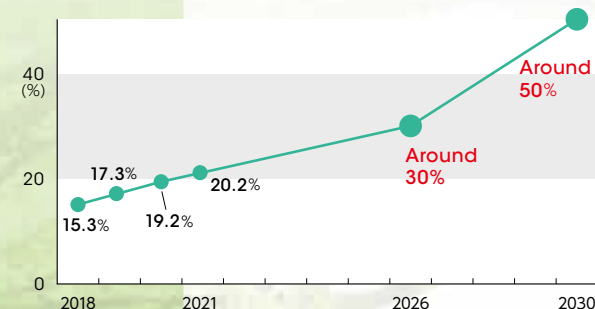
Actions taken by TMG

- 2019** • **Zero Emission Tokyo Strategy**
A vision, concrete actions and a roadmap to realize Zero Emission Tokyo by 2050, contributing to global net zero CO₂ emissions
- 2020** • **The national government announced that Japan will achieve carbon neutrality by 2050.**
- 2021** • **TMG announced "Carbon Half," a commitment to halving GHG emissions by 2030**
- 2022** • **Tokyo Environmental Master Plan was revised.**
Setting out specific targets and the shape of initiatives based on the recognition that actions in the period up to 2030 are extremely important to realize the visions for 2050.

Principal means of achieving the vision
 - Mandatory installation of solar power generation equipment at new buildings
 - TMG Cap-and-Trade Program
- 2030** • **"Carbon Half" to be achieved**
- 2050** • **"Zero Emission Tokyo" to be achieved**

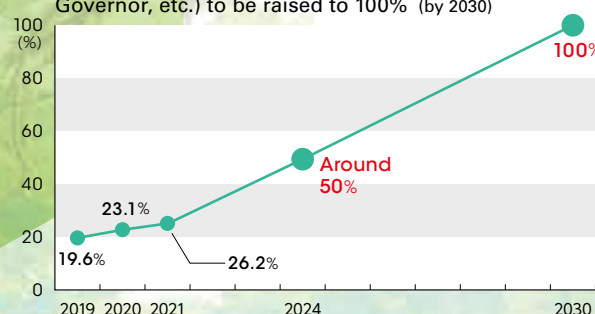
Criteria for achieving the 2030 goal (excerpts)

Share of renewable energy in electricity used in Tokyo



Share of renewable energy in electricity used in TMG-owned facilities (departments reporting to the Governor, etc.)

Share of renewable energy in electricity used in TMG-owned facilities (departments reporting to the Governor, etc.) to be raised to 100% (by 2030)



Principal use of proceeds from Tokyo Green Bonds

Principal use of proceeds

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



Realization of a prosperous society in harmony with the environment that continues to benefit from biodiversity



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



Realizing a green and resilient global city Tokyo opening up a future

Overview and Framework of the Tokyo Green Bonds Series 7

■ The table below overview of The Tokyo Green Bonds Series 7 in FY2023.

For Institutional Investors		
Series name	Tokyo Metropolitan Government Public Bond (Tokyo Green Bond (5 yr)) #7	Tokyo Metropolitan Government Public Bond (Tokyo Green Bond (30 yr)) #7
Tenor	5yr	30yr
Issue Amount	JPY 20bn	JPY 20bn
Coupon	0.398%	1.815%
Spread	JGB + 8bp	JGB + 10bp
Issue price	100.00	100.00
Pricing Date / Settlement Date	Friday, October 13, 2023 / Tuesday, October 24, 2023	
Redemption date	Wednesday, September 20, 2028	Friday, September 19, 2053
Ratings	A+ (S&P Global Rating Japan Inc.)	
External Review	ISS Corporate Solutions	
Final Demand Subscription rate	2.4 times oversubscribed	1.2 times oversubscribed
Declaration of Investment	From 79 investors	

For Private Investors	
Series name	Tokyo Metropolitan Government public international bond (Tokyo Green Bonds (international bonds)) #7
Tenor	5yr
Currency	Australian dollar (AUD)
Issue Amount	AUD 107mn (≈JPY 10bn)
Coupon	4.06% (year) (3.235%/year after tax) *Coupon after tax assumes a tax rate of 20.315% including the special income tax for disaster recovery.
Sales price	100.00% of face value
Pricing Date / Settlement Date	Friday, December 8, 2023 - Tuesday, December 19, 2023 / Wednesday, December 20, 2023
Redemption date	Wednesday, December 20, 2028
External Review	ISS Corporate Solutions

Tokyo Green Bonds Framework

- In compliance with the International Capital Market Association's (ICMA) Green Bond Principles, TMG developed the Tokyo Green Bonds Framework (March 2023) including sections for the use of proceeds, process for project evaluation and selection, management of proceeds and reporting.
- Prior to the 7th series of public offering of Tokyo Green Bonds, we obtained on September 4, 2023 a second party opinion from ISS Corporate Solutions that the Tokyo Green Bonds Framework complies with the Green Bond Principles.

Outline of the Tokyo Green Bonds Framework

1. Use of Proceeds	<ul style="list-style-type: none"> ■ Categories of environmental projects specified under the Tokyo Environmental Master Plan (September 2022): <ol style="list-style-type: none"> (1) Realization of zero emissions through energy decarbonization and the sustainable use of resources (2) Realization of a prosperous society in harmony with the environment that continues to benefit from biodiversity (3) Realization of a better urban environment that ensures the safety and health of Tokyo residents
2. Process for Project Evaluation and Selection	<ul style="list-style-type: none"> ■ Evaluate projects for eligibility using ESG criteria and select projects that qualify for financing through Tokyo Green Bonds to be issued in the current fiscal year. Priority is placed on E (environment).
3. Management of Proceeds	<ul style="list-style-type: none"> ■ Management by identifying the use of the allocated funds through classification into accounting segments under TMG's budget rules. ■ Funds to be allocated to projects selected for the fiscal year in principle. ■ Documents required for financial statements to be prepared after the end of each fiscal year for approval by the Tokyo Metropolitan Assembly.
4. Reporting	<ul style="list-style-type: none"> ■ Information on the amount of funds to be allocated to and the expected environmental impact of each selected project to be posted on the TMG website before issuance, followed by disclosure of the actual amount allocated to and expected impact of each selected project by the end of the following fiscal year.

Second Party Opinion

ISS Corporate Solutions

- Compliance with the Green Bond Principles
- All financed projects were recognized as contributing positively to achieving the SDGs (see the table below).

USE OF PROCEEDS		CONTRIBUTION OR OBSTRUCTION	SUSTAINABLE DEVELOPMENT GOALS	
Green real estate development	Improved energy and resource efficiency in green real estate	Positive contribution	7 AFFORDABLE AND CLEAN ENERGY	13 CLIMATE ACTION
	Sustainable plantings in green real estate	Positive contribution	11 SUSTAINABLE CITIES AND COMMUNITIES	
Renewable energy	Solar power (rooftop PV system)	Positive contribution	7 AFFORDABLE AND CLEAN ENERGY	13 CLIMATE ACTION
Pollution control/management	Wastewater treatment facility	Positive contribution	6 CLEAN WATER AND SANITATION	
Transportation	Public transport vehicles (low-emission diesel bus)	Positive contribution	13 CLIMATE ACTION	
	Charging stations (Construction of charging facilities for zero-emission vehicles)	Positive contribution	7 AFFORDABLE AND CLEAN ENERGY	13 CLIMATE ACTION
	Electric vehicles (zero-emission vehicles)	Positive contribution	7 AFFORDABLE AND CLEAN ENERGY	13 CLIMATE ACTION
Adaptation to climate change	Flood prevention (excluding dams)	Positive contribution	13 CLIMATE ACTION	
Sidewalks/motorways	Heat insulation on roads and pedestrian paths	Positive contribution	7 AFFORDABLE AND CLEAN ENERGY	13 CLIMATE ACTION

Negative contribution No Net Impact Positive contribution

*Framework and second-party opinion are available on the TMG website at: https://www.zaimu.metro.tokyo.lg.jp/english/bond/gb/tosai_ir_gb

Projects Financing and Environmental Impact of the Tokyo Green Bonds Series 7

Proceeds from the Tokyo Green Bonds Series 7 in FY2023 were used for financing new projects (about JPY41,627 million; hereinafter "New Financing Portion") and for refinancing existing projects (JPY8,690 million to refinance the Tokyo Green Bonds Series 2, issued in FY2018; hereinafter "Refinancing Portion").

The total amount of allocation results (50.317 billion yen) is the sum of the issuance in yen (40 billion yen) and the issuance in foreign currency (equivalent to 10 billion yen) converted at the currency exchange rate (10.317 billion yen) prevailing when the issuance conditions were designated.

● New Financing Portion

■ The proceeds were allocated to 21 projects in the three environmental categories.

■ About 80% of the total proceeds were allocated to the "Realization of zero emissions through energy decarbonization and the sustainable use of resources" category.

NO.	Environmental category	Project name	Allocation results (million of yen)	Environmental impact	
1	Realization of zero emissions through energy decarbonization and the sustainable use of resources	Rebuilding and repairment of facilities	9,476	Expected annual capacity of installed photovoltaic facilities	5,197,316kWh
	Realization of a prosperous society in harmony with the environment that continues to benefit from biodiversity		3,155	Expanded green area	10,442.49㎡
2	Realization of zero emissions through energy decarbonization and the sustainable use of resources	Heat island countermeasures (heat insulation and water absorption)	1,142	Develop and extend length of heat insulation and water absorption	10km
3		Installation of LED in facilities and roads	1,447	Reduce energy consumption	7,062,730kWh (annual total)
4		Installation of photovoltaic facilities in JKK housing complexes	1,200	Expected annual capacity of installed photovoltaic facilities	825,056kWh
5		Environmental improvement of metropolitan senior high schools (promotion of zero emission buildings)	30	Expected annual capacity of installed photovoltaic facilities	951,679kWh
				Reduce energy consumption	2,794,440kWh (annual total)
6		Installation of batteries to utilize renewable energy	38	Battery output	750kW (by the end of FY2024)
7		Development of cycling routes and areas	92	Develop and extend length	Cycling routes 11.5km (by the end of FY2024) 50.7km ameliorated as cycle roads (by the end of FY2030)
8		Development of medium and small size rivers	9,889	Completion of river development	68.4%
				Capacity of regulating reservior	1,056,500㎡ (by the end of FY2025)
9		Development of tsunami protection facilities	300	Develop and extend length	Tide embankment: 0.02km (by the end of FY2024)
10		Development of sediment disaster control and coastal protection facilities	1,040	Number of facilities constructed	Sediment control facilities: 45 Coastal protection facilities: 2 Steep slope failure prevention works: 12
11		Development Tokyo port facilities and islands coastal protection facilities	2,479	Expand development scale and number of facilities	● Tide embankment in Tokyo port area 60.4km ● Water gate in Tokyo port area 15 facilities ● Internal revetment in Tokyo port area 47.9km ● Drainage pump station in Tokyo port area 4 facilities (all by the end of FY2031) ● Coastal conservation facilities in Izu islands 0.3km (by the end of FY2023)

*Environmental impact refers to the positive impact on the environment yielded by the end of FY2023 or expected to be yielded.

*The figures for the impact and allocated results for eligible projects represent the amounts before post-issuance evaluation by a third party.

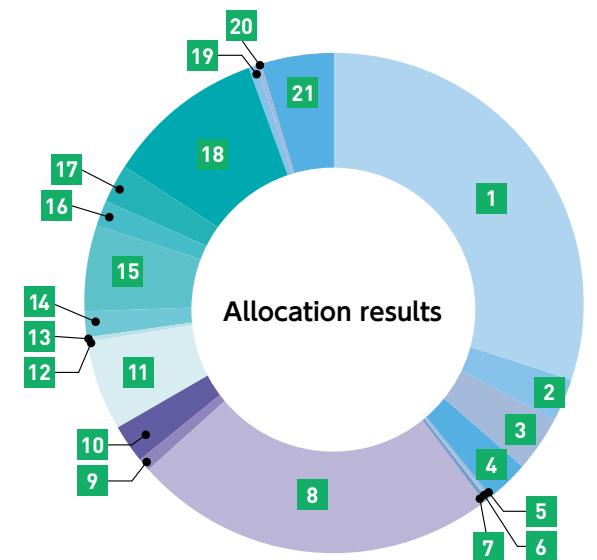


NO.	Environmental category	Project name	Allocation results (million of yen)	Environmental impact	
12	Realization of zero emissions through energy decarbonization and the sustainable use of resources	Construction of charging facilities for zero-emission vehicles (ZEVs)	2	Number of charging facilities constructed	18
				Reduction of the emission of regulated substances	CO ₂ reduction rate by replacing existing vehicles with ZEVs following the construction of charging facilities: CO ₂ (carbon dioxide): 100% NOx (nitrogen oxide): 100%
13		Introduction of zero-emission vehicles (ZEVs)	32	Reduction of the emission of regulated substances	CO ₂ reduction rate by replacing existing vehicles with ZEVs: PHVs:CO ₂ (carbon dioxide): 20.1% Electric motorcycles: NOx (nitrogen oxide): 100% CO (carbon monoxide): 100% HC (hydrocarbons): 100%
14		Energy-efficient water supply facilities	794	Electricity generated	497,844kWh (by the end of FY2024)
				Reduce energy consumption	1,376,094kWh
15		Energy/global warming actions in sewerage works	2,300	Reduce GHG emissions	33,000t-CO ₂ / 5 year (capacity) (by the end of FY2025)
16		Improvement of centralized sewerage system	700	Capacity of storage facility	1,750,000m ³ (by the end of FY2025)
17		Countermeasures against floods	1,000	Avoidance rate from drainage system flooding caused by 50 mm/h rain	73% (by the end of FY2025)
18	Realization of a prosperous society in harmony with the environment that continues to benefit from biodiversity	Development of Tokyo metropolitan parks	4,230	Expand developed areas	71,548m ²
19		Greening along water sides	262		3,568m ²
20		Development of marine park (Umi-no-Mori Park development project)	119		Umi-no-Mori Park (Forest Creation Area) About 60 ha (by the end of FY2024)
21	Realization of a better urban environment that ensures the safety and health of Tokyo residents	Installation of environment friendly Toei buses	1,900	Reduction of the emission of regulated substances	NOx (nitrogen oxide): 81% PM (particulate matter): 65%
Total			41,627		

*Environmental impact refers to the positive impact on the environment yielded or expected to be yielded by the end of FY2023.

*The figures for the impact and allocated results for eligible projects represent the amounts before post-issuance evaluation by a third party.

Breakdown of allocated amount



1	Rebuilding and repairment of facilities	30.3%
2	Heat island countermeasures (heat insulation and water absorption)	2.7%
3	Installation of LED in facilities and roads	3.5%
4	Installation of photovoltaic facilities in JKK housing complexes	2.9%
5	Environmental improvement of metropolitan senior high schools (promotion of zero emission buildings)	0.1%
6	Installation of batteries to utilize renewable energy	0.1%
7	Development of cycling routes and areas	0.2%
8	Development of medium and small size rivers	23.8%
9	Development of tsunami protection facilities	0.7%
10	Development of sediment disaster control and coastal protection facilities	2.5%
11	Development Tokyo port facilities and islands coastal protection facilities	6.0%
12	Construction of charging facilities for zero-emission vehicles (ZEVs)	0.0%
13	Introduction of zero-emission vehicles (ZEVs)	0.1%
14	Energy-efficient water supply facilities	1.9%
15	Energy/global warming actions in sewerage works	5.5%
16	Improvement of centralized sewerage system	1.7%
17	Countermeasures against floods	2.4%
18	Development of Tokyo metropolitan parks	10.2%
19	Greening along water sides	0.6%
20	Development of marine park	0.3%
21	Installation of environment friendly Toei buses	4.6%

*Allocated percentages do not add up to 100% due to rounding.

Projects Financing and Environmental Impact of the Tokyo Green Bonds Series 7

● Refinanced Portion

■ The proceeds were allocated to 8 projects in the three environmental categories.

■ About 90% of the total proceeds were allocated to the "Realization of zero emissions through energy decarbonization and the sustainable use of resources" category.

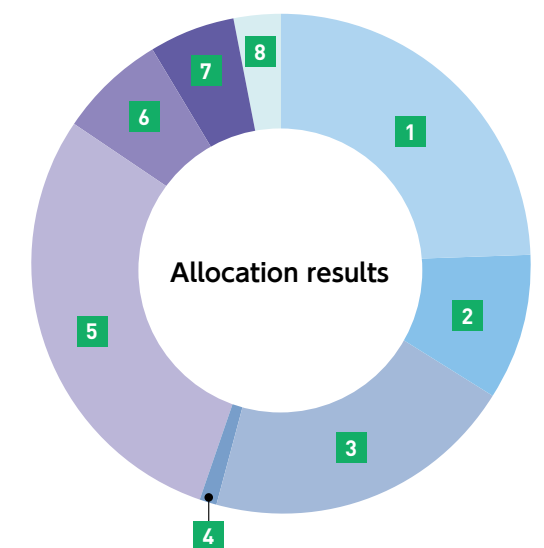
NO.	Environmental category	Project name	Refinanced amount (million of yen)	Environmental impact		number of years elapsed	Remaining period of permission (years)
1	Realization of zero emissions through energy decarbonization and the sustainable use of resources	Rebuilding and repairment of facilities	1,258	Expected annual capacity of installed photovoltaic facilities	396,975kWh	5	25
	Realization of a prosperous society in harmony with the environment that continues to benefit from biodiversity		876	Expanded green area	5,866㎡		
2	Realization of zero emissions through energy decarbonization and the sustainable use of resources	Heat island countermeasures (heat insulation and water absorption)	833	Develop and extend length of heat insulation and water absorption	13km	5	25
3		Installation of LED in facilities and roads	1,760	Reduce energy consumption	7,405,623kWh (annual total)		
4		Development of cycling routes and areas	83	Develop and extend length	Cycling routes 11.5km (at the end of FY2024) 15.7km ameliorated as cycle roads (completed at the end of FY2020)		
5		Development of medium and small size rivers	2,548	Completion of river development	Improvement rate: 67.3%		
				Capacity of regulating reservoir	1,056,300㎡ (by the end of FY2025)		
6		Development of tsunami protection facilities	583	Develop and extend length	Tide embankment: 0.17km Revetment: 0.15km (completed at the end of FY2019)		
7		Development Tokyo port facilities and islands coastal protection facilities	499	Expand development scale and number of facilities	<ul style="list-style-type: none"> ● Tide embankment in Tokyo port area 60.4km ● Water gate in Tokyo port area 15 facilities ● Internal revetment in Tokyo port area 45.6km ● Drainage pump station in Tokyo port area 4 facilities (all by the end of FY2031) ● Detached breakwater on the coast of Kozushima Port (artificial reef) 0.3km (completed at the end of FY2019) 		
8	Realization of a prosperous society in harmony with the environment that continues to benefit from biodiversity	Development of Tokyo metropolitan parks	250	Expand developed areas	23,700㎡	5	25
Total			8,690				

*Environmental impact refers to the positive impact on the environment yielded by the end of FY2018 or expected to be yielded.

*The figures for the impact and refinanced amount for eligible projects represent the amounts before post-issuance evaluation by a third party.

*"Remaining period of permission" refers to the period of permission (redemption) declared to the Ministry of Internal Affairs and Communications at issuance of the local government bond (within the limit of the life period of the public or official facilities whose construction is to be financed by the local government bond) minus the number of years elapsed since the completion of the asset.

Breakdown of refinanced amount



- 1 Rebuilding and repairment of facilities24.6%
- 2 Heat island countermeasures (heat insulation and water absorption)9.6%
- 3 Installation of LED in facilities and roads20.3%
- 4 Development of cycling routes and areas1.0%
- 5 Development of medium and small size rivers ..29.3%
- 6 Development of tsunami protection facilities6.7%
- 7 Development Tokyo port facilities and islands coastal protection facilities5.7%
- 8 Development of Tokyo metropolitan parks2.9%

*Allocated percentages do not add up to 100% due to rounding.

These projects, assessed and selected before the bond issue, were made public in September 2023 in line with the process for project evaluation and selection and the reporting method specified in the Tokyo Green Bonds Framework.

The proceeds of some JPY50 billion from the Tokyo Green Bonds Series 7 were managed according to the management method set forth in the Framework and allocated in their entirety to those projects in FY2023.



Tokyo Metropolitan Yaguchi Special School

Installation of Solar Power Generation Equipment

Realizing zero emissions

Rationale for the project

- TMG is promoting **the use of renewable energy** to achieve Carbon Half by 2030 and a Zero Emission Tokyo by 2050.
- With its many buildings,* Tokyo has great potential for photovoltaic generation as solar panels can be placed on its buildings. The installation of photovoltaic facilities is also beneficial for building users in terms of **greater resilience and economic efficiency**.
- TMG is trying hard to win the hearts and minds of citizens, businesses, associations and other stakeholders by **taking the initiative in installing photovoltaic facilities**.

*Buildings account for some 70% of CO₂ emissions from Tokyo.

Objective of the TMG (planned)

FY2030 : Total of TMG-owned facilities (departments reporting to the Governor, three public enterprise departments and Tokyo public housing complexes)

Cumulative capacity of photovoltaic facilities installed: 74,000kW

FY2030 : 100% of installing solar power generation equipment at all of the TMG facilities (departments reporting to the Governor, etc.)

Environmental effect

Estimated annual output of solar power generation equipment (installed in FY2023)

6,226,724kWh (6,248kW)

Equivalent to the annual power consumption of some 1,576 general households

Effect of photovoltaic generation

CO₂ reduction through 4kW of photovoltaic generation is equivalent to carbon absorption by 2,000m² of cedar forest (some 200 trees).

Total capacity at end of FY2022
30,043kW

FY2030
Total installed cumulative capacity of the solar power generation equipment in TMG facilities
74,000kW

Cumulative capacity as at the end of FY2023 represents an estimate. The definite value will be announced at the end of this fiscal year

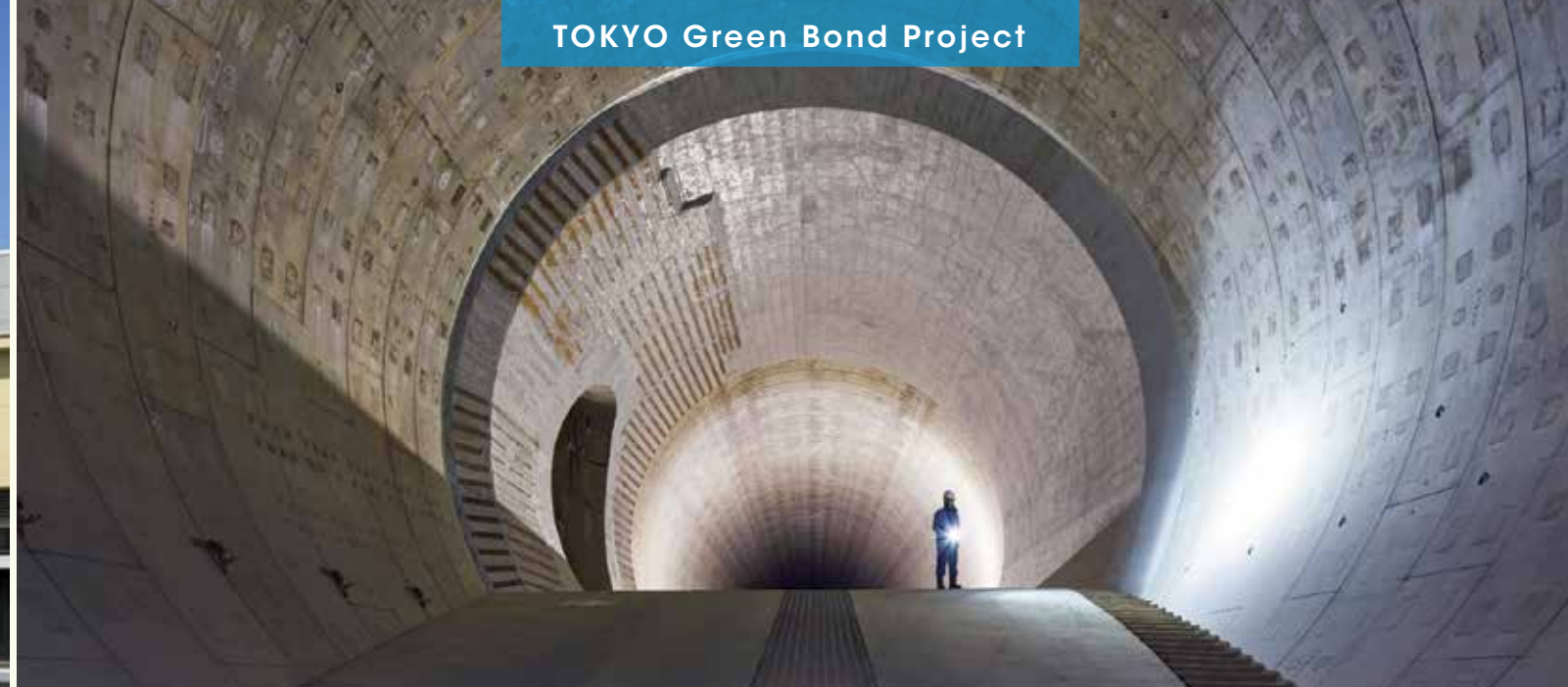
Installed in FY2023

- Tokyo Metropolitan Minami-Katsushika Senior High School, Tokyo Metropolitan Shoyo High School, Tokyo Metropolitan Komei Special Education School
- Tokyo Metropolitan Research Institute for Environmental Protection
- TMG Ome Office Complex,

Contribution to SDGs



etc.



Kanda River Ring Road No.7 Underground Regulating Reservoir (underground tunnel)

Constructing Regulating Reservoirs

Adaptation to Climate Change

Rationale for the project

- Regulating reservoir have been built to **prevent rivers from overflowing** by **temporarily storing swollen river water** during torrential rains, which are becoming increasingly intense and frequent.
- The Kanda River Ring Road No.7 Underground Regulating Reservoir effectively helped **prevent water damage** as "Typhoon Hagibis in 2019" hit Tokyo, lowering the downstream **water level by up to 1.5m** (estimate) by retaining 490,000m³* of water, or about 90% of its maximum capacity.

*Equivalent to about 1,600 25-meter pools

Objective of the TMG (planned)

By the end of FY2025 : New regulating reservoir with a capacity of about 3,600,000m³ to be operational

Environmental effect

Total capacity of reservoirs under development

about **3,600,000m³**

Target for reservoir operation

(To be achieved by the end of FY2025)

In operation
about 2,640,000 m³

Basic facts about regulating reservoirs

<Location of regulating reservoirs>

- Effective use of public spaces such as areas underneath roads and parks.

<Roles>

- Improve safety against flooding by retaining part of the floodwater.

<Types>

- Artificially excavated, underground-box, underground tunnel.

Created in FY2023

- Johoku Central Park Regulating Reservoir
- Sakai River Kanamori Regulating Reservoir, etc.

Contribution to SDGs





Heat-insulation paving works on road surface

Combating the urban heat island effect

Realizing zero emissions

Rationale for the project

- As Tokyo experiences hotter summers with increasing numbers of extremely hot days and sweltering nights, it is essential to **tackle the urban heat island effect** that underlies this phenomenon.
- Measures against the urban heat island effect include **heat-insulating and water-retaining pavement** to suppress the rise in the road surface temperature, implemented in conjunction with road maintenance works in Center Core areas and other business areas. This effectively helps **reduce the rise in the road surface temperature by up to 8-10°C**.

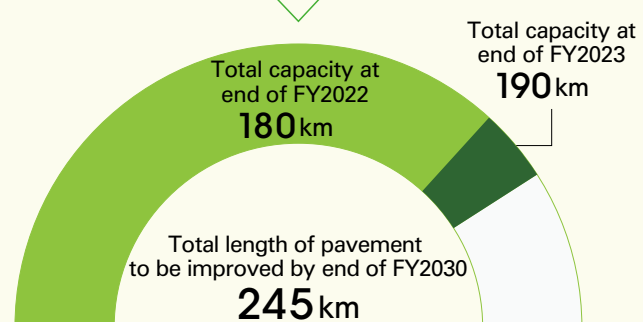
Objective of the TMG (planned)

Total length of heat-insulating and water-retaining pavement in FY2030: about 245km

Environmental effect

Length of pavement completed in FY2023

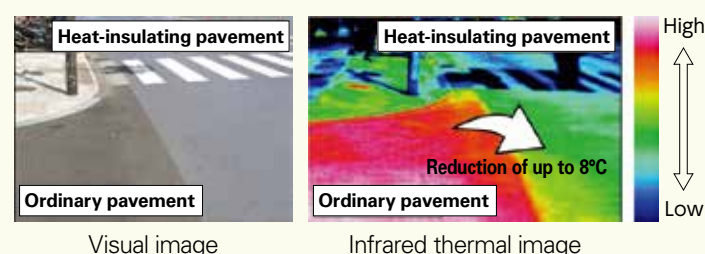
10km



Description of pavement techniques

<Heat-insulating pavement>

- Heat shield applied to the road surface prevents heat from accumulating in the pavement.



<Water-retaining pavement>

- The heat of evaporation of water seeping into the water-retaining agent in the pavement reduces the rise in the road surface temperature.



Low-emission bus

Introduction of eco-friendly buses

Realizing a better urban environment

Rationale for the project

- To help bring about a sustainable society, Toei Bus has taken **a range of measures to reduce environmental burdens**.
- In replacing diesel vehicles, we introduce **eco-friendly buses that comply with the latest emission control regulations** in an effort to **reduce exhaust gases**.

Objective of the TMG (planned)

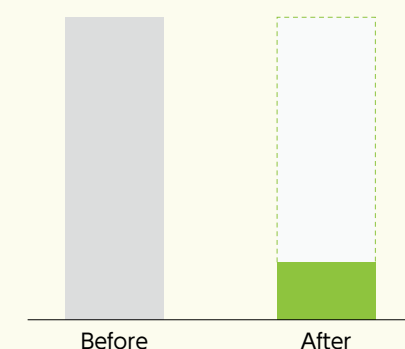
Introduction of 80 low-emission buses in FY2023

Environmental effect

Reduction of substances covered by emission control regulations (estimate)

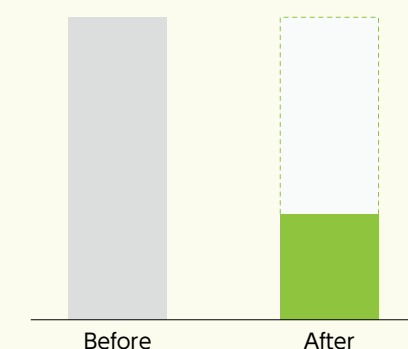
NOx (Nitrogen oxides)

Down **81%***



PM (Particulate matter)

Down **65%***



*In FY2023, 80 low-emission buses were introduced to replace 84 traditional buses, which were disposed of. The reduction rate is estimated by assuming that the emission control requirements applicable to the discarded vehicles were the actual emissions of regulated substances from each of the vehicles.

Created in FY2023

• Chiyoda Ward, Chuo Ward, Minato Ward, Shinagawa Ward, etc.

Contribution to SDGs



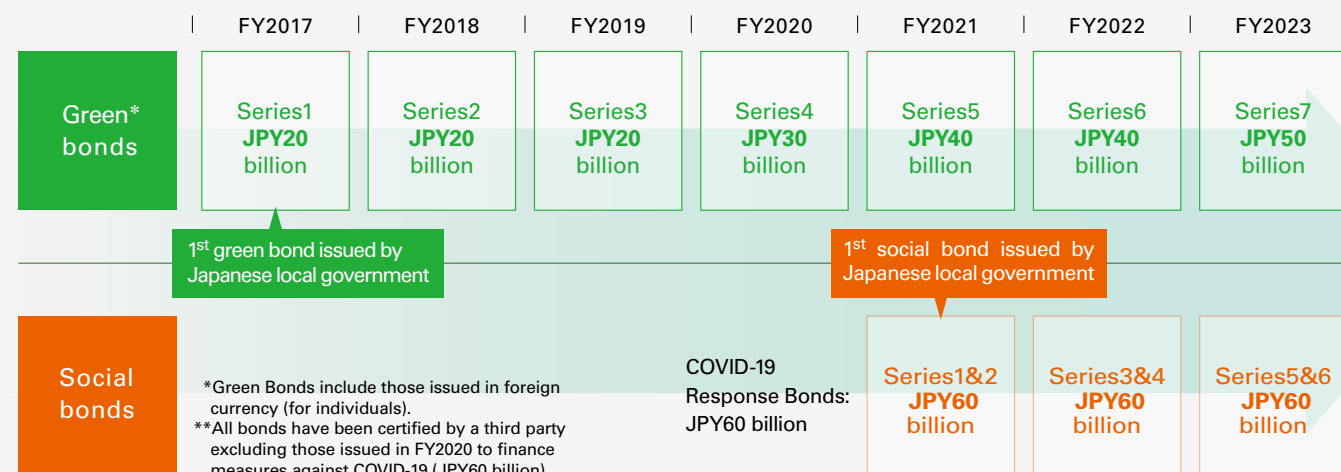
Contribution to SDGs



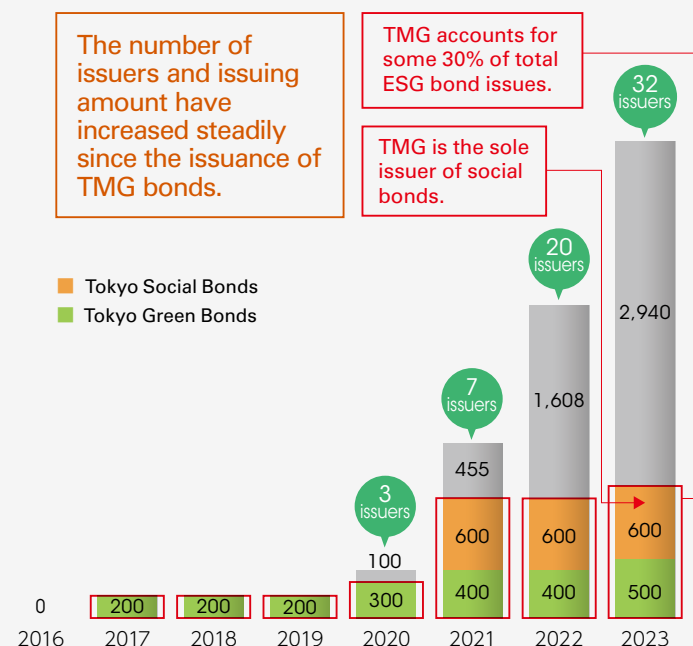
Issuance Result of TMG's SDGs Bonds

(Appendix)

- To capture the momentum of the SDGs and ESG, TMG issued Tokyo Environmental Supporter Bonds in FY2016.
- With the issuance of Tokyo Green Bonds in FY2017, the TMG became the first local government in Japan to issue green bonds, thus contributing to the development of the domestic market since its inception.
- In response to the momentum toward sustainable recovery both in Japan and overseas, in FY2020 TMG issued bonds earmarked for action to cope with the COVID-19 pandemic. In FY2021, TMG launched Tokyo Social Bonds – the first of its kind for a Japanese local government – to assist Tokyo residents and businesses in need of social support.
- TMG has also gradually scaled up the issuance of bonds since the initial offer of JPY20 billion. In addition to the continued issuance of Tokyo Social Bonds, Tokyo Green and Blue Bonds and Tokyo Sustainability Bonds in foreign currency will be newly issued in FY2024. By continuing to issue SDGs bonds, we will contribute to further growth of the sustainable finance market.



Share of TMG ESG bonds in the domestic ESG local bond market (Unit: 100 million yen)



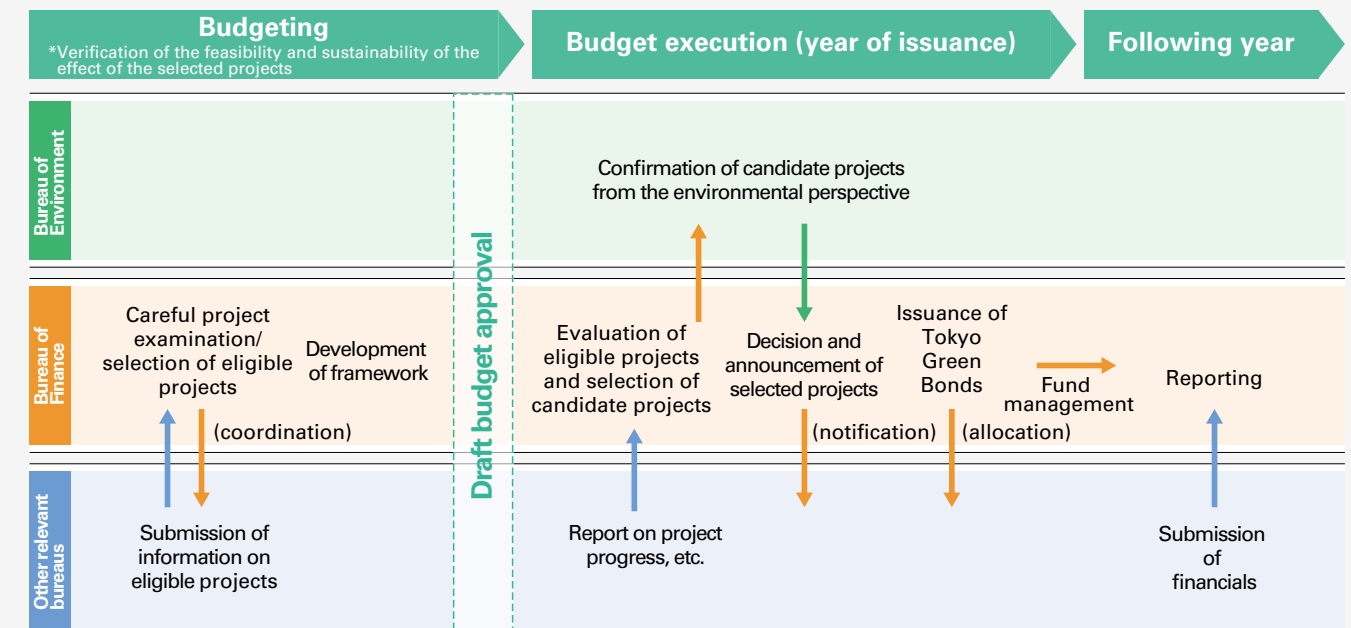
Awards won

- Refinitiv Japan, K.K. "DEALWATCH AWARDS2022" Sustainable Finance Issuer of the Year**
"TMG made its presence felt by **proactively engaging in financing with ESG bonds**. It attracted immense demand by enhancing communication both in Japan and overseas and gaining **endorsement from investors**."
- Japan Times "Sustainable Japan Award2023" Jury's Special Award, ESG Category**
"Including Green and Social Bond issues, **the forward-looking initiatives of TMG substantially contribute to the activation of the local government ESG bond market**."
- Environmental Finance (British journal specialized in environmental finance), "Environmental Finance Bond Awards 2023" Social Bond of the Year – local authority/municipality**
"As the first local government to participate in the sustainable bond market, TMG demonstrated a wide range of use of proceeds by expanding the scope of financed projects in its June 2022 issue."



Process from Project Selection to Reporting

(Appendix)



<Budget planning phase>

- The Bureau of Finance selects eligible projects and the projects to be financed by the proceeds in consultation with the bureau responsible for each project and the department responsible for the environment.
- Where stipulated by the applicable law, such as the Local Government Finance Act, a local government may issue local bonds as specified in the budget, which needs to be adopted by the local assembly before the start of the fiscal year concerned. TMG bonds, including Tokyo Green Bonds, are issued in accordance with this procedure. The feasibility of the selected projects and the sustainability of their effects are also verified in the budgetary process.

<Budget execution phase>

- We manage the allocation of proceeds to selected projects following the issuance of Tokyo Green Bonds while clarifying the use of the allocated funds by classifying the revenue budget into accounting segments under the TMG budget rules.

<Fiscal year after issuance>

- Regarding reporting, we publish the results of fund allocation by the end of the fiscal year following the issuance of Tokyo Green Bonds.
- With regard to the revenues and expenditures of the TMG, including those pertaining to the projects financed by the proceeds of Tokyo Green Bonds, documents required for financial statements are prepared after the end of the fiscal year, reviewed by the Audit and Inspection commissioners, and then submitted to the Tokyo Metropolitan Assembly for approval, along with the commissioner's opinion.
- Throughout this process, the TMG ensures the appropriateness and transparency of the evaluation and selection of financed projects as well as fund management.

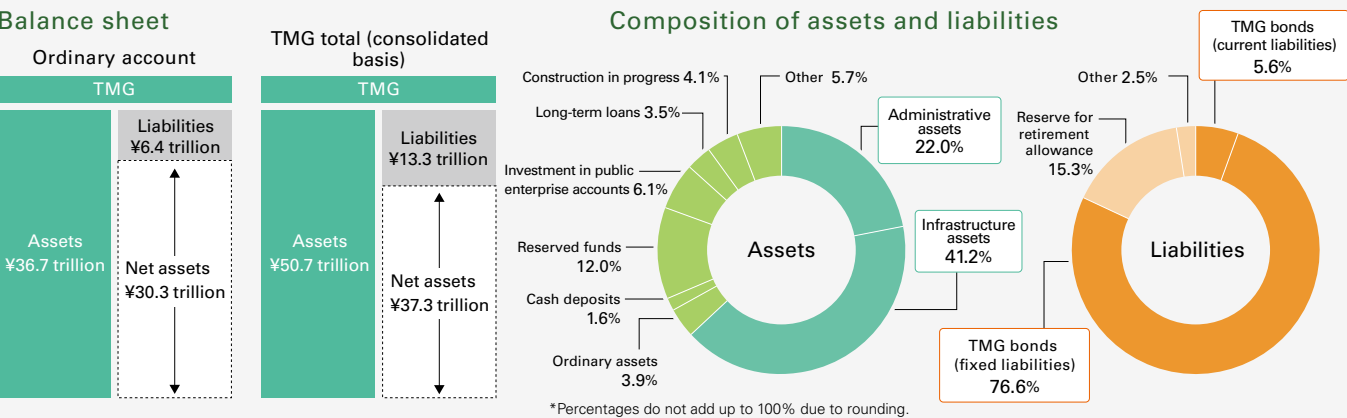
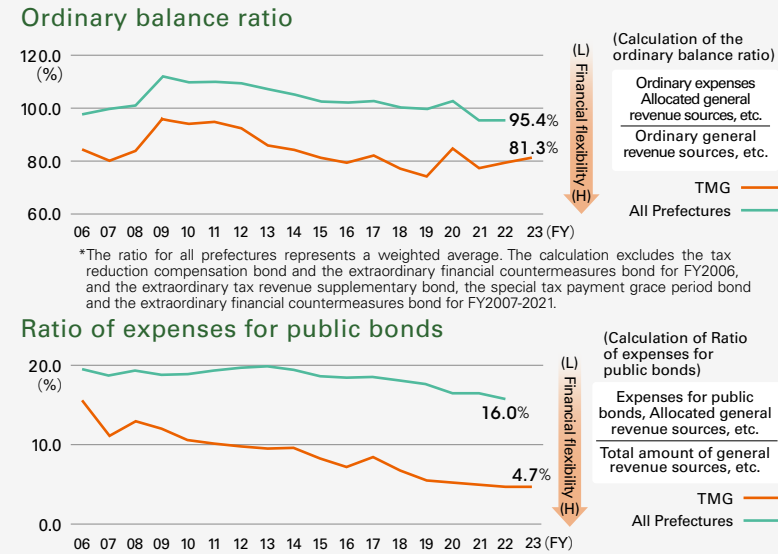


Financial Standing of TMG <Appendix>

*Based on financial results of ordinary account for FY2023

- TMG's ordinary balance ratio and ratio of expenses for public bonds in FY2023 stood at 81.3% and 4.7%, respectively, highlighting greater financial flexibility than the prefectural average.
- Assets and liabilities on the balance sheet come to total ¥36,725.4 billion and ¥6,397.9 billion, respectively, resulting in a total net worth (difference between assets and liabilities) of ¥30,327.5 billion.
- The aggregate balance sheet of the TMG, including special accounts and public enterprise accounts and policy cooperation bodies, etc., as well as ordinary account, shows total assets of ¥50,668.8 billion, total liabilities of ¥13,345.0 billion, and a total net worth of ¥37,323.8 billion.

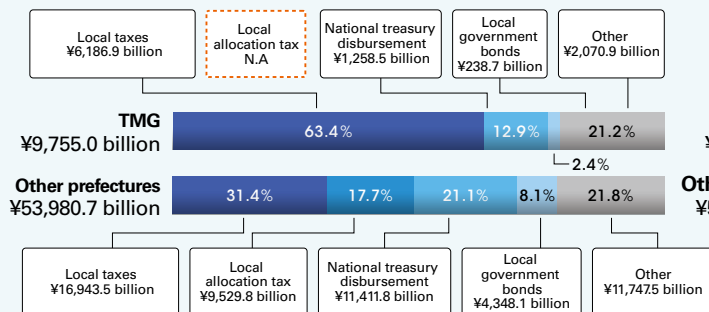
* "Ordinary account" refers to the accounts of each local government systematically restructured under the standards set by the Ministry of Internal Affairs and Communications to understand the financial status of local governments and analyze all local finance plans, among others.



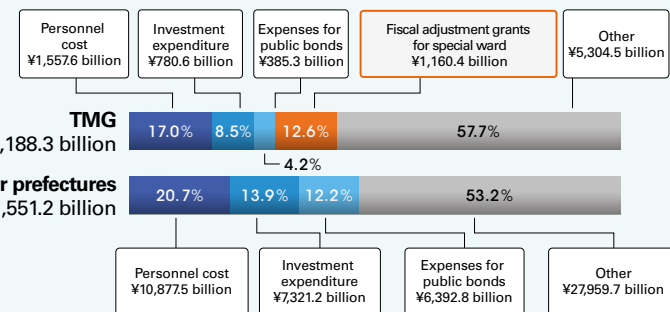
Characteristics of TMG finance

- As compared with the local finance plan, the revenue structure of TMG has the following characteristics: (1) high dependence on local taxes; (2) no local allocation tax granted from the national government; (3) low dependence on national treasury disbursement; and (4) low dependence on local government bonds. All these characteristics indicate considerably higher financial autonomy and flexibility than other local governments in general.
- As regards the structure of expenditure, one of the characteristics of the TMG is the disbursement of grants for financial adjustments under the Special Ward System. The low ratio of expenses for public bonds, mainly for redemption of local bonds, also indicates greater financial flexibility than other prefectures.

Comparison of revenue structure between TMG and other prefectures (financial results for FY2022)



Comparison of spending structure with other prefectures (financial results for FY2022)



Safety and Liquidity of TMG Bonds <Appendix>

<Safety>

- The TMG is capable of financing the redemption of its bonds in a stable manner as it depends mostly on its own sources of revenue, such as local taxes, which it has power to impose.
- The BIS applies 0% risk weighting to local government bonds, including TMG bonds, because the national government guarantees necessary funding for the repayment of principal and interest, for example by setting the total amount of the local allocation tax at a level to ensure a balance between total expenditure, including public bond costs, on the one hand, and total revenue on the other.
- In recognition of its disciplined fiscal administration, the TMG enjoys from S&P Global Ratings Japan Inc. the A+ rating in the long-term issuer credit, and the aa+ rating in the stand-alone credit profile, or rating specific to the TMG, net of any influence from the national government.

<Liquidity>

- TMG bonds account for some 6% of the publicly offered local government bonds by amount issued, and some 7% by amount outstanding.

BIS risk weighting

Japanese govt bonds	Govt-backed bonds	TMG bonds	FILP agency bonds	Bank debenture Finance bonds
0%	0%	0%	10%	20%

Rating of TMG bonds

Issuer credit rating	Stand-alone credit file
A+ (Capped by the national government's rating)	aa+

Rating obtained from S&P Global Rating Japan Inc.

Publicly offered local government bond market (FY2023)

TMG bonds 5.8%	TMG bonds 7.3%
National publicly offered local government bonds 18.9%	National publicly offered local government bonds 19.9%
Other 75.3%	Other 72.8%

Amount of issue

Amount outstanding

*Excluding citizen participatory-type public market offering bond.

