



# Tokyo Green Bond

October 2023

Tokyo Green Bond Impact Report

Contact | Bond Section, Budget Division, Bureau of Finance  
Tokyo Metropolitan Government  
TEL : 03-5388-2681  
Email : S0000063@section.metro.tokyo.jp

TMG <https://www.metro.tokyo.lg.jp/english/index.html>

Bonds <https://www.zaimu.metro.tokyo.lg.jp/bond/en/en.html>

X (ex-Twitter) @tocho\_seisaku

Note (Global Finance City Tokyo) <https://note.com/gcft>

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Amid the increasingly serious impacts of climate change, 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 now 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.

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.

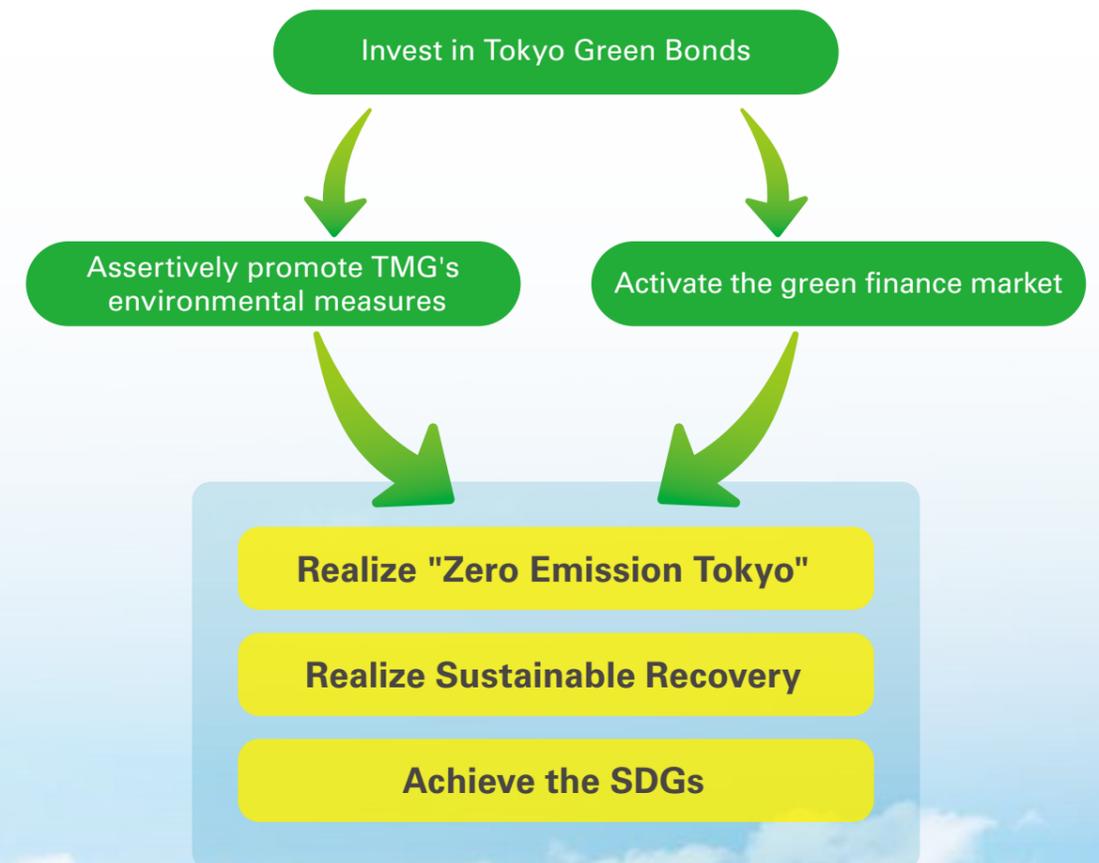
As a city standing on the front line of climate change response, along with continuing to take concrete actions for decarbonization, we will also engage in developing the ESG market through the issuance of green bonds.

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

- 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 CO<sub>2</sub> 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

#### Heavy rains and floods



State of New York, July 2023

- Heavy rain reported to be of once-in-a-millennium intensity
- Flood and inundation damage over a wide area on the East Coast

#### Heatwaves



Heart of Tokyo, July 2023

- 13 days with temperatures reaching 35°C, a monthly record
- Highest monthly average temperature in Japan in 125 years since records began (25.96°C)

## Actions taken by TMG

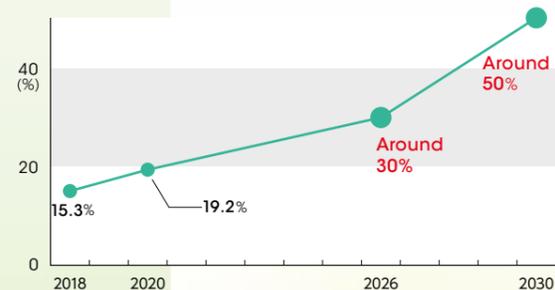
- 2019** ● **Zero Emission Tokyo Strategy**  
A vision, concrete actions and a roadmap to realize Zero Emission Tokyo by 2050, contributing to global net zero CO<sub>2</sub> emissions
- 2020** ● **The national government announced that Japan will achieve carbon neutrality by 2050.**
- 2021** ● **TMG 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.
- 2030** ● **"Carbon Half" to be achieved**
- 2050** ● **"Zero Emission Tokyo" to be achieved**

#### Principal means of achieving the vision

- Mandatory installation of solar power generation equipment at new buildings
- TMG Cap-and-Trade Program

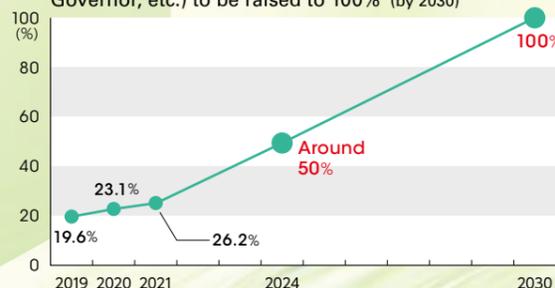
#### Criteria for achieving the 2030 goal (excerpts)

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



### Smart Energy

- Reduce greenhouse gases emitted by office buildings
- Increase the utilization of renewable energy



### Sustainable Resource

- Reduce resource loss and increase the use of environmentally friendly materials
- The 3Rs (reduce, reuse and recycle), promote recycling of waste



### Natural Environment Conservation

- Grow and conserve plants
- Conserve biological diversity



### Improvement of Air, water, thermal environment

- Improve water quality and groundwater conservation
- Road improvement (heat insulation and water absorption)



### Adaptation for Climate Change

- Measures addressing rising temperatures in urban areas
- Measures to prevent flooding and prepare for other natural disasters

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

# Overview and Framework of The Tokyo Green Bonds Series 6

The table below overview of The Tokyo Green Bonds Series 6 in FY2022.

## For Institutional Investors

Series name	Tokyo Metropolitan Government Public Bond (Tokyo Green Bond (5 yr)) #6	Tokyo Metropolitan Government Public Bond (Tokyo Green Bond (30 yr)) #6
Tenor	5yr	30yr
Issue Amount	JPY 15bn	JPY 15bn
Coupon	0.175%	1.568%
Spread	JGB + 8bp	JGB + 10bp
Issue price	100.00	100.00
Pricing Date / Settlement Date	Friday, October 14, 2022 / Tuesday, October 25, 2022	
Redemption date	Friday, September 17, 2027	Friday, September 20, 2052
Ratings	A+ (S&P Global Rating Japan Inc.)	
External Review	ISS ESG	
Final Demand Subscription rate	8.9 times oversubscribed	2.2 times oversubscribed
Declaration of Investment	From 76 investors	

## For Private Investors

Series name	Tokyo Metropolitan Government public international bond (Tokyo Green Bonds (international bonds)) #6
Tenor	5yr
Currency	Australian dollar (AUD)
Issue Amount	AUD 110mn (~JPY 10bn)
Coupon	3.63% (year) (2.892%/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 9, 2022 - Tuesday, December 20, 2022 / Wednesday, December 21, 2022
Redemption date	Monday, December 20, 2027
External Review	ISS ESG

## Tokyo Green Bonds Framework

- In compliance with the International Capital Market Association's (ICMA) Green Bond Principles, TMG developed the Tokyo Green Bonds Framework including sections for the use of proceeds, process for project evaluation and selection, management of proceeds and reporting.
- Prior to the 6th series of public offering of Tokyo Green Bonds, we obtained on September 2, 2022 a second party opinion from ISS ESG 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"> <li>Categories of environmental projects specified under the Tokyo Environmental Master Plan (March 2016):           <ul style="list-style-type: none"> <li>Smart energy and urban development</li> <li>Sustainable resource and waste management</li> <li>National environmental conservation</li> <li>Improvement of living environment</li> <li>Adaptation for climate change</li> </ul> </li> </ul>
2. Process for Project Evaluation and Selection	<ul style="list-style-type: none"> <li>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).</li> </ul>
3. Management of Proceeds	<ul style="list-style-type: none"> <li>Management by identifying the use of the allocated funds through classification into accounting segments under TMG's budget rules.</li> <li>Funds to be allocated to projects selected for the fiscal year in principle.</li> <li>Documents required for financial statements to be prepared after the end of each fiscal year for approval by the Tokyo Metropolitan Assembly.</li> </ul>
4. Reporting	<ul style="list-style-type: none"> <li>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.</li> </ul>

## Second Party Opinion

- ISS ESG**
- 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	Limited Contribution	7, 11, 13
	Sustainable plantings in green real estate	Limited Contribution	11
Renewable energy	Solar power (rooftop PV system)	Significant Contribution	7, 13
Sustainable water and wastewater management	Wastewater treatment facility	Significant Contribution	6
	Improved energy and resource efficiency in water plant	Limited Contribution	7, 13
Transportation	Public transport vehicles (low pollution non-step bus)	Significant Contribution	13
	Clean transportation charging stations	Limited Contribution	7, 13
	Clean transport Plug-in hybrid vehicles (low-carbon vehicles)	Limited Contribution	7, 13
	Clean transport Electric motorcycles	Limited Contribution	7, 13
Adaptation to climate change	Flood prevention (excluding dams)	Limited Contribution	3, 11, 13
Sustainable road development	Heat insulation on roads and pedestrian and cycling paths	Limited Contribution	13

Significant Obstruction | Limited Obstruction | No Net Impact | Limited Contribution | Significant Contribution

\*The TMG Green Bond Framework and second-party opinion are available on the TMG website at: [https://www.zaimu.metro.tokyo.lg.jp/bond/tosai\\_ir/tosai\\_ir\\_gb.html](https://www.zaimu.metro.tokyo.lg.jp/bond/tosai_ir/tosai_ir_gb.html)

# Projects Financing and Environmental Impact of The Tokyo Green Bonds Series 6

■ Proceeds from The Tokyo Green Bonds Series 6 in FY2022 were allocated to 17 projects in four environmental categories.

■ About 40% of the total proceeds were allocated to the "Smart Energy & Urban Development" category, and some 40% to the "Adaptation for Climate Change" category.

NO.	Environmental category	Project name	Allocation results (million of yen)	Environmental impact	
1	Smart Energy & Urban Development	Rebuilding and repairment of facilities (Introduction of photovoltaic facilities and green space development)	11,840	Expected annual capacity of installed photovoltaic facilities	3,268,386kWh (annual total)
	Natural Environment Conservation		2,606	Expanded green area	3759.37m <sup>2</sup>
2	Smart Energy & Urban Development	Installation of LED in facilities and roads	1,684	Reduce energy consumption	4,267,043 k Wh (annual total)
3		Construction of charging facilities for zero-emission vehicles (ZEVs)	10	Number of charging facilities constructed	79
				Reduction of the emission of regulated substances	CO <sub>2</sub> reduction rate by replacing existing vehicles with ZEVs following the construction of charging facilities: CO <sub>2</sub> reduction rate: 100% NOx reduction rate: 100%
4		Introduction of zero-emission vehicles (ZEVs)	70	Reduction of the emission of regulated substances	CO <sub>2</sub> reduction rate by replacing existing vehicles with ZEVs: PHVs: CO <sub>2</sub> reduction rate: 26.9%  Electric motorcycles: NOx reduction rate: 100% CO reduction rate: 100% HC reduction rate: 100%
5		Energy-efficient water supply facilities	585	Reduce energy consumption	1,388,491kWh
6		Energy/global warming actions in sewerage works	1,780	Reduce GHG emissions	33,000t-CO <sub>2</sub> /5 year (capacity) (by the end of FY2025)
7		Development of cycling routes and areas	90	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	Natural Environment Conservation	Development of Tokyo metropolitan parks	1,540	Expand developed areas	32,000m <sup>2</sup>
9		Greening along water sides	200		5,711m <sup>2</sup>
10		Development of marine park	150		Umi-no-Mori Park (Forest Creation Area) 58ha (by the end of FY2024)

\*1 Environmental impact refers to the positive impact on the environment yielded by the end of FY2022 or expected to be yielded.

\*2 The total amount of allocation results is the sum of the issuance (30 billion yen) in yen and the issuance (issued to be equivalent to 10 billion yen) in foreign currency that is converted with the currency exchange rate (10,086 billion yen) at the time when the issuance condition is designated.

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



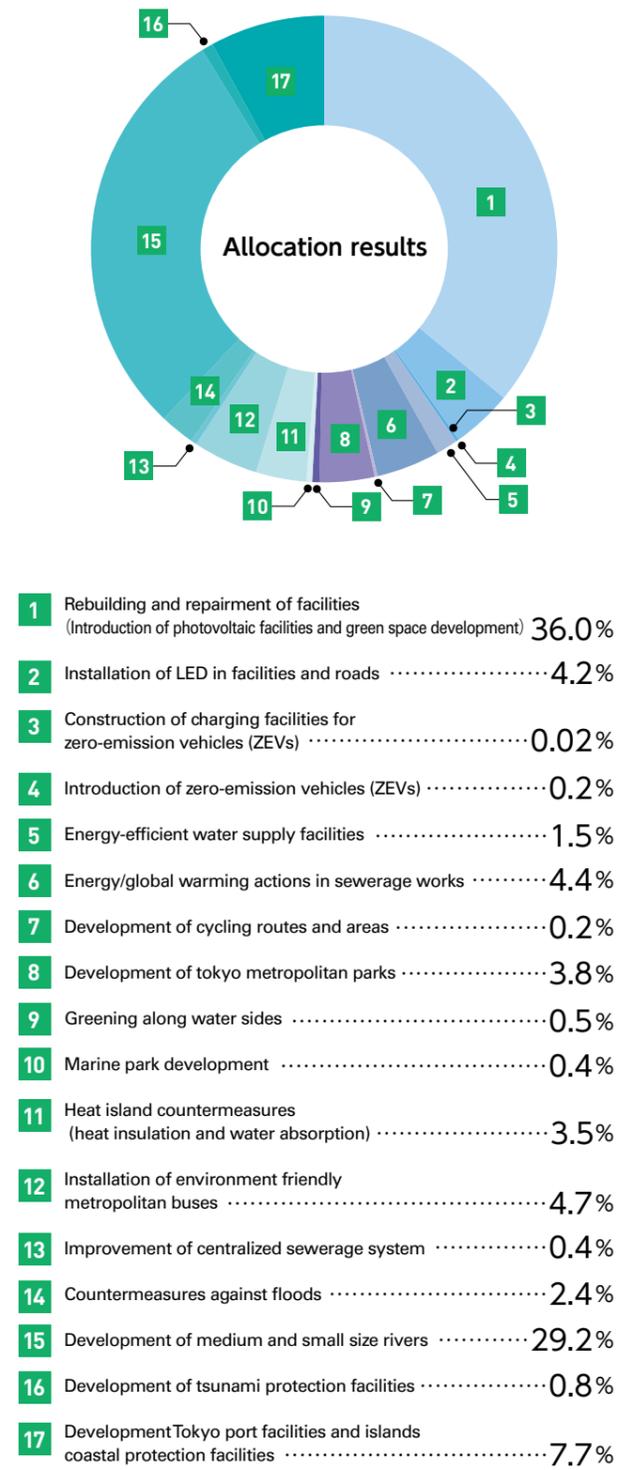
NO.	Environmental category	Project name	Allocation results (million of yen)	Environmental impact
11	Improvement of Living Environment	Heat island countermeasures (heat insulation and water absorption)	1,386	Develop and extend length of heat insulation and water absorption 10.0km
12		Installation of environment friendly metropolitan buses	1,900	Reduction of the emission of regulated substances NOx (nitrogen oxide): 80% PM (particulate matter): 63%
13		Improvement of centralized sewerage system	170	Capacity of storage facility 1,750,000m <sup>3</sup> (by the end of FY2025)
14	Adaptation for Climate Change	Countermeasures against floods	950	Avoidance rate from drainage system flooding caused by 50 mm/h rain 73% (by the end of FY2025)
15		Development of medium and small size rivers	11,705	Completion of river development 68.2%
				Capacity of regulating reservoir 1,056,500m <sup>3</sup> (by the end of FY2025)
16		Development of tsunami protection facilities	320	Develop and extend length Tide embankment: 0.01km (by the end of FY2023)
17	Development Tokyo port facilities and islands coastal protection facilities	3,100	Expand development scale and number of facilities <ul style="list-style-type: none"> <li>● Tide embankment in Tokyo port area 58.1km</li> <li>● Water gate in Tokyo port area 15 facilities</li> <li>● Internal revetment in Tokyo port area 37.6km</li> <li>● Drainage pump station in Tokyo port area 4 facilities</li> <li>● Coastal conservation facilities in Izu islands 0.2km</li> </ul>	
Total			40,086	

\*1 Environmental impact refers to the positive impact on the environment yielded by the end of FY2022 or expected to be yielded.  
 \*2 The total amount of allocation results is the sum of the issuance (30 billion yen) in yen and the issuance (issued to be equivalent to 10 billion yen) in foreign currency that is converted with the currency exchange rate (10,086 billion yen) at the time when the issuance condition is designated.  
 \*The figures for the impact and allocated results for eligible projects represent the amounts before post-issuance evaluation by a third party.

These projects, assessed and selected before the bond issue, were made public in September 2022 in line with the process for the project evaluation and selection and the reporting method specified in the Tokyo Green Bonds Framework.  
 The proceeds of some ¥40 billion from the 6th round issue of Tokyo Green Bonds were managed according to the management method set forth in the Framework and allocated in their entirety to those projects in FY 2022.



**Breakdown of allocated amount**



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



Tokyo Metropolitan Yaguchi Special School

## Installation of solar Power Generation Equipment

(Smart Energy & Urban Development)

### Rationale for the project

- TMG is promoting **the use of renewable energy** to achieve a 2030 Carbon Half 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 CO<sub>2</sub> 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 FY2022)

**3,268,386 kWh** (3,279.8kW)

Equivalent to the annual power consumption of some 783 general households

### Effect of photovoltaic generation

CO<sub>2</sub> reduction through 4kW of photovoltaic generation is equivalent to carbon absorption by 2,000m<sup>2</sup> of cedar forest (some 200 trees).

Total capacity at end of FY2021  
**27,055kW**

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

Cumulative capacity as at the end of FY2022 including the projects financed by Green Bonds (3,279.8kW) will be announced at the end of this fiscal year.

Installed in FY2022

- Tokyo Metropolitan Yaguchi Special School
- Shimura Police Station
- Kokubunji Fire Station
- Tokyo public housing complex (Suwa Yonchome Apartment, Tama New Town), etc.

Contribution to SDGs



Keihin Canal

## Development of tide embankment

(Adaptation to Climate Change)

### Rationale for the project

- The Master Plan for Protection of the Tokyo Bay Coastal Area [Tokyo Metropolis Segment] was revised in March 2023 to ensure safety against earthquakes and typhoons by promoting quakeproof and waterproof measures for coastal protection facilities.
- In order to protect against **rising sea levels**\*1 and more powerful typhoons **due to climate change, the height of tide embankments**\*2 has been raised in stages.
- The tide embankment and interior embankment that we had built effectively prevented water damage from the storm surge caused by "Typhoon Hagibis in 2019"\*3.

\*1 Average annual sea level in the coastal waters of Tokyo is expected to rise by about 0.6 meters by the end of the century.

\*2 The Master Plan envisages the construction of tide embankments between FY2022 and FY2031 to address climate change (about 24km) and protect against earthquakes (about 4km).

\*3 Equivalent tidal level to Typhoon Kitty in 1949 (Arakawa Baselevel (A.P.) + 3.15m) (Typhoon Kitty caused water damage to 140,000 households.)

### Objective of the TMG (planned)

**By the end of FY2031 : Development of 60.4km of tide embankment to be completed**

### Environmental effect

**Extension of tide embankments at the Port of Tokyo** (installed in FY2022)

**0.2 km**

Completion of project slated for the end of FY2031

End FY2021  
**57.9 km**

End FY2022  
**58.1 km**

End FY2031 Total completed length  
**60.4 km**

### Basic facts about tide embankments

- Facilities intended to prevent seawater from intruding into the land area due to storm surge or tsunami.
- Consideration given to landscaping with stairs and planted zones.
- TMG determines the height of tide embankments assuming a storm equivalent to that caused by Typhoon Vera in 1959. Going forward, the height of tide embankments will be increased in anticipation of the sea level rise under the 2°C global warming scenario, increased storm surge deviation and ocean wave levels due to the intensification of typhoons, as well as allowance height.

Created in FY2022

• Shinonome Nichome (east segment), etc.

Contribution to SDGs





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

# 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 Kandagawa River Ring Road No.7 Underground Regulating Reservoir effectively helped **prevent water damage** as "Typhon Hagibis in 2019" hit Tokyo, lowering the downstream **water level by up to 1.5m** (estimate) by retaining 490,000m<sup>3</sup>\* 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 total capacity of about 1,100,000m<sup>3</sup> to be operational**

### Environmental effect

Total capacity of regulating reservoir under construct in FY2022

about **1,100,000m<sup>3</sup>**  
in additional capacity  
(To be achieved by the end of FY2025)



### 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 FY2022

- Ring Road No. 7 Multi-basin Underground Regulating Reservoir (Shakujii River Segment)
- Johoku Central Park Regulating Reservoir (Phase I), etc.

Contribution to SDGs



Higash-Kojiya Pumping Station, a facility similar to the one allocated in FY2022

# Prevention of flooding

(installation of rainwater pumping facilities)

(Adaptation to Climate Change)

### Rationale for the project

- The rising intensity and frequency of heavy rains in recent years and the impact of climate change have resulted in higher precipitation, requiring the development of retention and other facilities to **alleviate water damage**.
- 58 **rainwater retention facilities**\*1 (total retention capacity of about 600,000m<sup>3</sup>), 70 **rainwater pumping facilities**\*2 (total drainage capacity of about 140,000m<sup>3</sup>/minute) were completed in the 23 wards of Tokyo by the end of FY2022. Those facilities substantially helped alleviate water damage caused by "Typhoon Hagibis in 2019".

\*1 Total retention capacity: 600,000m<sup>3</sup> (end of FY2020), equivalent to 2,000 25-meter pools

\*2 Total drainage capacity: 140,000m<sup>3</sup>/minute (end of FY2020), equivalent to eight 25-meter pools per second

### Objective of the TMG (planned)

**By the end of FY2025 : Raise the 50mm flooding elimination rate \* to 73%**

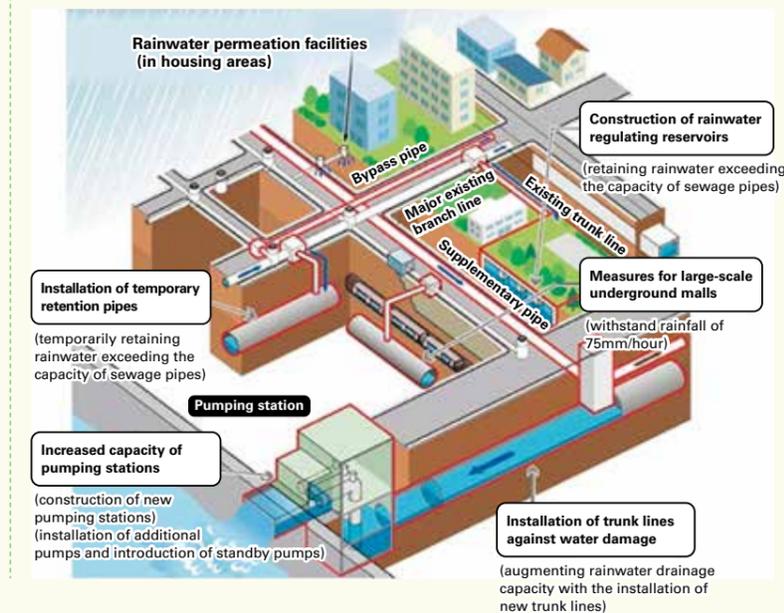
### Environmental effect

Percentage of the area of the 23 wards of Tokyo where water damage is prevented during heavy rainfall of 50mm/hour

**73%** (Remaining gap: 3%)  
(To be achieved by the end of FY2025)



### Illustration of measures against water damage



Created in FY2022

- Senju-Sekiya Pumping Station, etc.
- Ongoing project to be completed in 2025, Retaining capacity of 17,580m<sup>3</sup> or equivalent to 59 25-meter pools
- \* To be added to the above total capacity after development

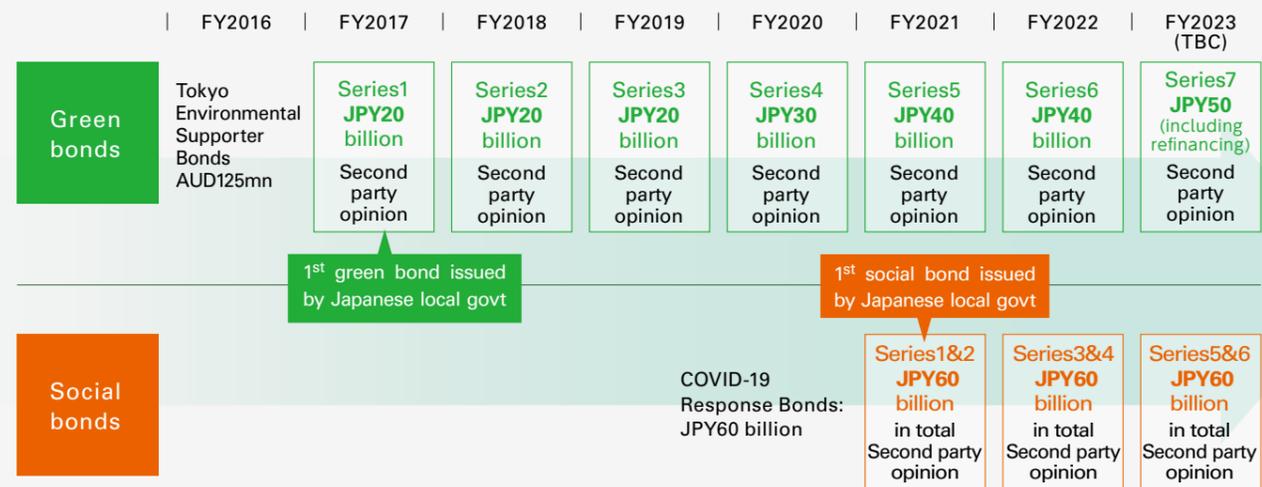
Contribution to SDGs



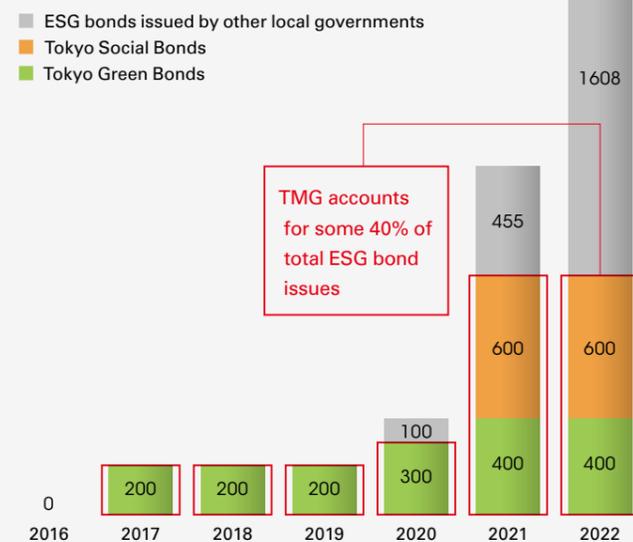
# Issuance Result of TMG's ESG Bonds

(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 scaled up the issuance of bonds since the initial offer of JPY20 billion. In FY2023, the total amount of Tokyo Green Bonds and Tokyo Social Bonds issued is expected to reach JPY110 billion, effectively contributing to further growth of the ESG bond market.



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



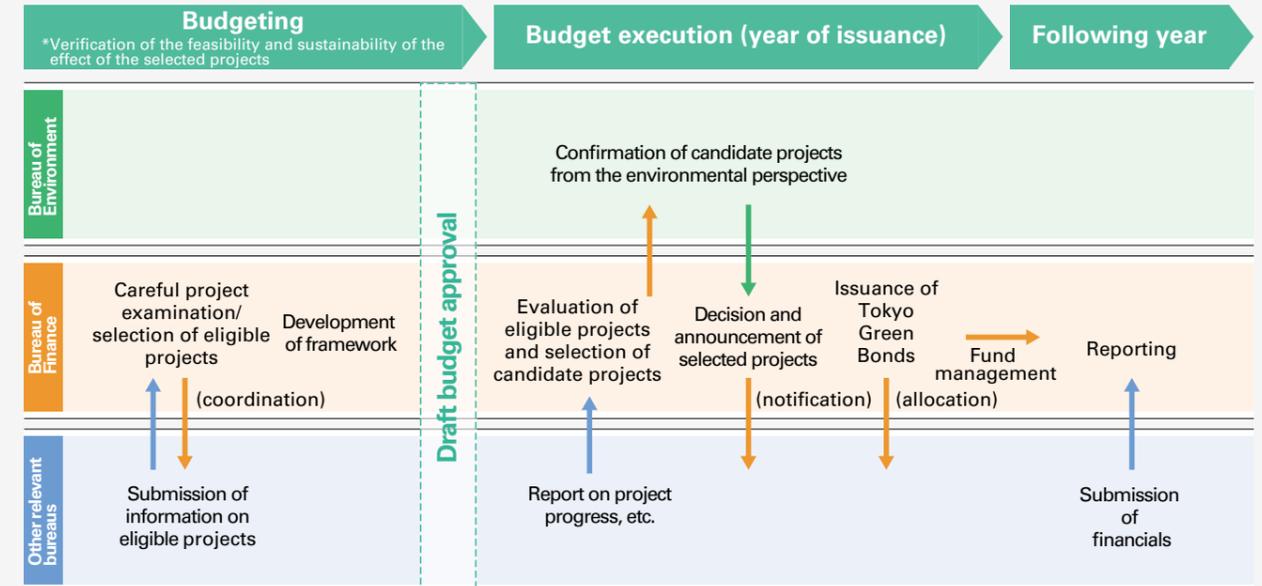
## Awards

- Capital Eye, Limited, "Best Deals of 2021" Best Issuer of 2021 in the local bond category**
  - First local government in Japan to issue social bonds
  - Leading local governments in the issuance of SDGs bonds, including green bonds, contributing to the diversification and expansion of the market
- Refinitiv Japan, K.K., "Dealwatch Awards 2022" Sustainable Finance Issuer of the Year**
  - Leading ESG bond issues as the largest local government issuer
  - Creation of premium with Social Bonds issued in March 2023 (Series 4)
  - First local government to win an award in the sustainable finance category
- Environmental Finance (British journal specialized in environmental finance), "Environmental Finance Bond Awards 2023"**
  - First Japanese local government to enter the sustainable bond market
  - The jury appreciated the fact that Social Bonds allowed wider resource allocation by expanding the scope of eligible projects as compared with the previous series.



# 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.



\*Compiled by TMG from data available on local government websites, etc.

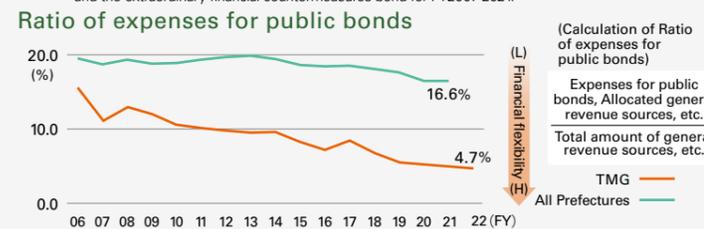
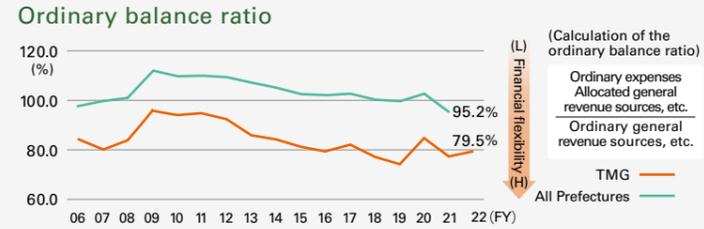
\*Includes ESG bonds issued for private investors. (The amount of Tokyo Green Bonds issued for personal investors is an estimate converted to yen.)

\*Excludes ESG bonds that have not obtained an external review pertaining to compliance with the ICMA Principles.

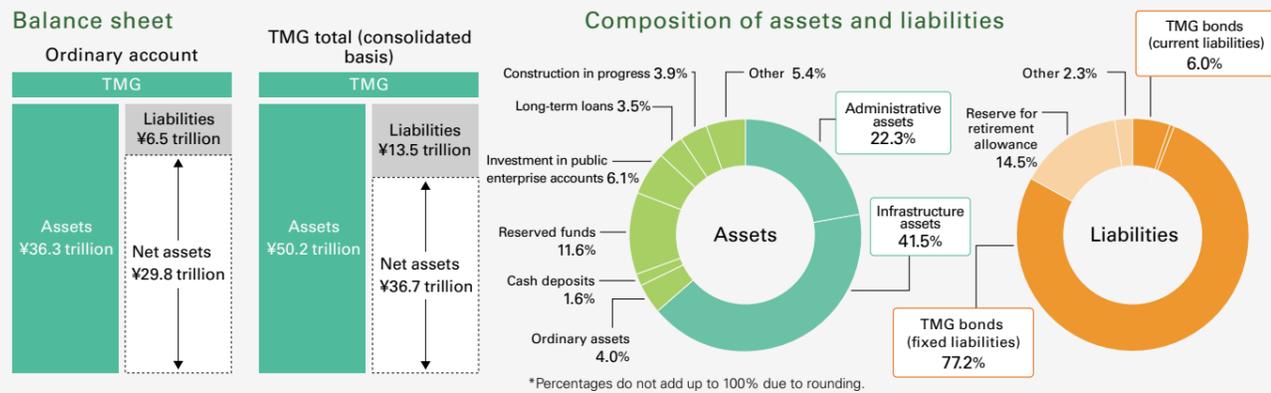
# Financial Standing of TMG <Appendix>

\*Based on financial results of ordinary account for FY2022

- TMG's ordinary balance ratio and ratio of expenses for public bonds in FY2022 stood at 79.5% and 4.7%, respectively, highlighting greater financial flexibility than the prefectural average.
- Assets and liabilities on the balance sheet come to total ¥36,303.3 billion and ¥6,518.7 billion, respectively, resulting in a total net worth (difference between assets and liabilities) of ¥29,784.5 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 ¥50,194.6 billion, total liabilities of ¥13,507.3 billion, and a total net worth of ¥36,687.3 billion.



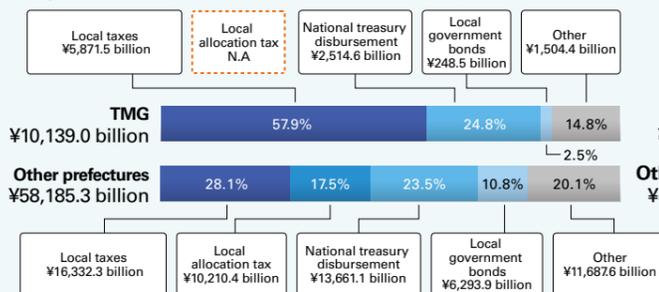
\* "Ordinary account" refers to the accounts of each local government systematically restructured under the standards set by the Ministry of Internal Affairs and Communications to understand the financial status of local governments and analyze all local finance plans, among others.



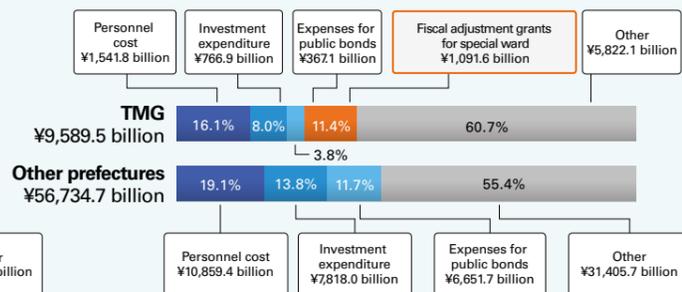
## Characteristics of TMG finance

- 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 FY2021)



Comparison of spending structure with other prefectures (financial results for FY2021)



For further information on the results of ordinary account in FY2022, please visit: [https://www.zaimu.metro.tokyo.lg.jp/syukei1/zaisei/4nenjizaimuhoukokusho\\_index.html](https://www.zaimu.metro.tokyo.lg.jp/syukei1/zaisei/4nenjizaimuhoukokusho_index.html) (TMG Annual Financial Report, 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 8% of the publicly offered local government bonds by amount issued, and some 9% 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



Rating obtained from S&P Global Rating Japan Inc.

## Publicly offered local government bond market (FY2022)



\*Excluding citizen participatory-type public market offering bond.

