

18. Realizing an environmentally-conscious and comfortable city

1. Overview

In anticipation of the Tokyo 2020 Games, we improve the urban thermal environment by promoting the construction of solar heat-blocking pavements* and the creation of cool areas and cool spots, and work on comprehensive countermeasures against heat such as fostering the momentum of introduction of water sprinkling, etc.

In addition, in anticipation of the Games, we thoroughly promote 3R concept* (reduce, reuse, and recycle) activities for waste such as reducing food waste* and promoting the utilization of recyclable resources.

Furthermore, we promote sharing of knowledge with Asian cities, etc. through intercity exchanges and international conferences on environmental countermeasures against waste and air pollution.

2. Legacy in a nutshell

Promoting countermeasures against heat in areas where people gather around the venues during the Tokyo 2020 Games will lead to improvement in the urban thermal environment. In addition, as a result of fostering of the momentum for implementing countermeasures against heat triggered by the Games among Tokyo residents, companies, NGOs, NPOs, etc., initiatives will be developed by various entities even after the Games, and countermeasures against heat will become established in society. Based on thorough implementation of 3Rs, "sustainable resource utilization" such as reducing resource loss and promoting the utilization of eco-materials* will be established throughout the supply chain* from manufacturing to consumption, and a sustainable resource recycling-based society where the environmental impact of resource utilization is minimized will be realized.

In line with active cooperation in environmental countermeasures between cities around the world and (TMG) carried out through active exchanges with overseas cities, resource recycling measures, etc. during the Games will be strongly transmitted and the presence of TMG will be improved.

Stakeholders	The national government, overseas cities, the Tokyo 2020 Organizing Committee, private companies, etc.
Type of legacy	Environment & Sustainability
Geographical scope	Tokyo
Timing scope	Long term

Responsible for implementation	TMG
Source of legacy	Candidacy file, Action Plan for 2020, Future Tokyo: Tokyo's Long-Term Strategy
Associated SDGs	3-Good Health and Well-Being, 6-Clean Water and Sanitation, 7- Affordable and Clean Energy, 8- Decent Work and Economic Growth, 11- Sustainable Cities and Communities, 12- Responsible Consumption and Production, 13- Climate Action, 14- Life Below Water, 15- Life on Land, 17- Partnerships

3. Development

(1) Why

Prior to the decision to host the Games, TMG has been promoting heat island countermeasures such as the preparation of solar heat-blocking pavements and the creation and preservation of greenery. However, due to the effects of global warming and urbanization, hot days and tropical nights will continue to occur frequently in Tokyo, and there is a risk that the number of heatstroke patients will increase as the temperature rises. For visitors to Tokyo for the Games, it is necessary to work on comprehensive countermeasures against heat including heat control aiming for an immediate effect on severe summer heat, in addition to heat island countermeasures to reduce the temperature of the city as a whole.

In addition, at the Games where many materials and goods will be procured and used, it is important to work on the promotion of "sustainable resource utilization" such as the reduction of resource loss, utilization of eco-materials, and further promotion of recycling of waste.

(2) When

FY2015	The "Tokyo Environmental Basic Plan" was formulated *Formulated in order to flexibly deal with shift in values, change in socioeconomic conditions, and technological innovation which can be expected as the awareness of environmental measures increases worldwide, actively develop advanced environmental countermeasures, and clarify policy development to Tokyo residents, while drawing a path for the future in anticipation of solving issues to be addressed by TMG
	The "Tokyo Metropolitan Sustainable Materials and Waste

	<p>Management Plan" was formulated</p> <p>*This embodies the policies of TMG for "sustainable resource utilization" in order to strengthen cooperation with companies, related organizations, local governments, etc., and maintain and develop the vitality of Tokyo vigorously in anticipation of the Tokyo 2020 Games and the post-Games</p>
	<p>The "Tokyo Promotion Conference for 'Countermeasures Against Heat' in Anticipation of the Tokyo 2020 Games" was established.</p>
FY2016	<p>The "Tokyo 2020 Medal Project" started collection at TMG Building</p>
FY2017	<p>In anticipation of the Games, initiatives to create cool areas launched</p>
	<p>The water sprinkling event "Perfect Day for Water Sprinkling -Wisdom of Edo / Hospitality of Tokyo-" was held</p>
	<p>The "Tokyo Food Waste Reduction Partnership Conference" was held</p>
FY2018	<p>The "Tokyo Forum for Clean City & Clear Sky" was held</p> <p>*With themes of waste treatment, resource recycling, and air pollution countermeasures, which are common environmental issues in large cities, representatives of the world's large cities gather together in order to share information on effective policies and knowledge for realizing a sustainable urban environment and discuss solutions</p>
FY2019	<p>“Zero Emission Tokyo Strategy” was formulated</p> <p>*A summary of a vision to achieve reduction of CO2 emissions in Tokyo to virtually zero by 2050 and concrete initiatives and the roadmap</p>
	<p>“Tokyo Climate Change Adaptation Policy” was formulated</p> <p>*Taking into consideration of the impact of climate change in Tokyo, the policy states the direction of avoiding and reducing damage in various fields, including natural disaster, health, and agriculture, forestry and fisheries</p>
	<p>“Plastic Reduction Program” was formulated</p> <p>*TMG works to reduce incineration amount of plastic waste from households and large-scale office buildings by 40% by 2030.</p>
FY2020	<p>“Zero Emission Tokyo Strategy 2020 Update & Report” was formulated</p> <p>*In order to accelerate effective initiatives for decarbonization, the “2030 Carbon-Half Style” was newly advocated as a vision of social reform in Tokyo for 2030, indicating an approach and direction for reform in various policy areas.</p>
	<p>“Tokyo Climate Change Adaptation Plan” was formulated</p> <p>*The Plan was formulated based on the concept of “Sustainable Recovery” in</p>

	addition to the concept stated in the Tokyo Climate Change Adaptation Policy
	<p>“Tokyo Food Waste Reduction Promotion Plan” was formulated</p> <p>*The plan sets up a target to halve the food waste (from FY2000) in 2030 and the summary of concrete initiatives.</p>
FY2021	We implement heat countermeasures for spectators during the Games period including setting up rest areas and distributing neck coolers

(3) Who

TMG

(4) How

① Countermeasures against heat in anticipation of the Games and realization of a comfortable urban environment

A. Formation of an area where people can walk comfortably even in midsummer, etc.

- In anticipation of the Tokyo 2020 Games, at the test event* in the summer of 2019, we tried countermeasures against heat such as distributing goods and installing facilities to reduce heat.
- In order to protect the health and safety of Tokyo residents, spectators and others from intense heat of Tokyo during the Games, we install rest areas with wind blowers in the last one mile* and roadside of the road for the competition. We also set up sunscreen tents in front of the Pedestrian Screening Area (PSA). In addition, we distribute Leaflet fans and neck coolers bearing warnings etc. about heat stroke, and drinks.
- The competition facilities were developed into facilities that allow the audience to watch comfortably by taking countermeasures against heat, etc.
- In preparation for the Games, we introduced heat control equipment around the competition venues to create cool areas.
- We actively supported municipalities and businesses that created cool spots by installation of dry mist cooling system, sunshades, wall greening, etc.

<Leaflet fan and neck cooler>[1]



<Creation of cool areas>[2]
Dry mist cooling system and heat ray reflection film



[1] Bureau of Environment (TMG) website:

https://www.kankyo.metro.tokyo.lg.jp/climate/heat_island/tokyo2020atsusataisakujigyo/index.html

[2] Future Tokyo: Tokyo's Long-Term Strategic Vision (TMG)

- We carry out proper maintenance and management of shade trees on municipal roads and park trees, such as well-planned pruning for training trees to a large shape, in order to secure shades that block the strong summer sunlight.
- We secure green shades to block sunlight on the sidewalks that will serve as traffic lines of spectators around the competition venues.
- We promote initiatives for countermeasures against heat, such as introduction of heat control equipment at station plazas in the seaside sub-center area and the symbol promenade parks after verifying the effects.
- We obtain temperature, humidity, wind direction, atmospheric pressure and other data from smart poles and use the data for the measures to reduce heat.


B. Suppression of rise of road surface temperature

- On metropolitan roads, we develop solar heat-blocking pavements, etc. centering on the center core area*. At the same time, we provide assistance to municipalities that develop solar heat-blocking and water-retaining pavements* around the competition venues, competition courses, etc., so as to promote the development.
- As a countermeasure against the heat on the roads in the seaside area, we develop solar heat-blocking pavements on the roadways in the Daiba area scheduled to be utilized for the on-road course of the Games competition (Triathlon).

C. Promotion of the establishment of countermeasures against heat in society

- We widely disseminated information on "cool areas" where heat control equipment had been introduced in the planar direction through postings on the website, etc., and fostered the momentum for implementing countermeasures against heat, by developing a movement of water sprinkling in cooperation with private organizations, etc.
- In areas with a high level of attention where many tourists, etc. gather, TMG pioneered countermeasures against heat and led and promoted countermeasures against heat to be implemented by municipalities and businesses.

<Water sprinkling event at Tokyo Midtown Hibiya>^[3]



[3] TMG White Paper on Environment 2018 (TMG)

- We support municipalities that make efforts in line with local conditions through collaboration with various entities, so as to establish countermeasures against heat throughout Tokyo.
- We proactively implement public relations on heatstroke prevention as a reminder to Tokyo residents.
- We advance preparations to set up the Tokyo Climate Change Adaptation Center (tentative name) within Tokyo Metropolitan Research Institute for Environmental Protection, a public environmental corporation that has implemented research on heat island measures in urban areas.

D. Realization of a comfortable urban environment surrounded by water and greenery

- We promote greening of waterfront spaces such as seaside areas and rivers in order to further enhance the network of water and greenery.
- We promote greening of rivers, which is valuable waterfront space of central Tokyo, in a planned way and implement initiatives to improve the quality of river facilities utilizing natural environments.
- At the "Uminomori Park", we hold tree-planting events with participation of Tokyo residents and events in cooperation with the "Uminomori Club*" in order to promote collaborative forest creation.
- Aiming to expand the network of water and greenery, we promote designing and construction works of Uminomori Park and other facilities to open a new marine park.
- We create a comfortable urban space and promote creation of a sustainable and attractive city by providing subsidies for the new expansion of the metropolitan parks and the improvement of municipal parks.
- In order to create unified greenery in Tokyo, in addition to the development of parks and green spaces, we promote rooftop greening and on-site greening in metropolitan facilities, etc. and the development of open spaces taking advantage of various urban development schemes*, so as to create high-quality greenery in every urban space.
- We promote preservation and creation of greenery by the private sector utilizing various schemes for urban development, by evaluating efforts for preservation and creation of greenery outside the development area as public contribution and easing the limits on floor area ratios etc.
- We promote the creation of high-quality greenery with consideration for the

ecosystem, by promoting the planting of native species through the utilization of the Greenery Program* and support to municipalities and businesses.


- We promote the creation of comfortable urban spaces and planning and development of sustainable and attractive city by providing financial and technical assistance to the improvement of municipal parks.
 - We steadily promote greening with seizing every opportunity, including the construction and reconstruction of metropolitan facilities.
 - We work to newly create greenery using metropolitan housings by promoting greening when the buildings are rebuilt and creating spaces for the residents by greening, including farms for community residents where various people gather.
 - In order to form an urban environment colored with flowers and greenery, we promote greening utilizing flowers in cooperation with municipalities, companies, and citizens.
 - Based on the “Comprehensive Policy for Green Conservation” and “Development Policy for the City Planning Park and Green Space”, we promote securing greenery. In addition, we support initiatives to preserve existing greenery and newly create greenery by municipal governments by advancing designation of the “Areas to Foster Agricultural Landscapes” and formulating the “Program to Support Preservation and Creation of Greenery in Tokyo (tentative name)”.
 - In order to preserve greenery in Tokyo, we promote designation and municipalization of preserved areas in natural areas rich in greenery, including hilly areas.
 - We establish the “Subsidy System for Projects to Improve Green Parks and Green Areas using the ”Green Tokyo Fund” to secure green networks and reduce areas lacking enough parks, to provide financial assistance for municipalities to develop city planning of parks, and park green space, etc. outside the park areas and green areas in the city planning.
 - To help roadside trees display various functions as green infrastructure, we develop database of information on their maintenance and management, with the aim of promoting strategic and detailed management and maintenance utilizing ICT*, etc.
 - We conduct pruning of trees in a planned manner to secure green shades to block intense sunlight in the summer and disaster-prevention analysis for the trees. In addition, we create database of the management ledger of roadside trees to develop their quick and effective management.
-

- We conduct adaptable management* by implementing priority environmental development and continuing monitoring of species in 31 metropolitan parks that serve as bases for local ecosystems.
- We implement maintenance and restoration of woods and restoration of waterfront areas at metropolitan parks. Also, we do surveys on the natural environment, establish preservation and maintenance plans and implement park maintenance to protect the ecosystem.
- In order to create and preserve a natural environment for the enrichment of the habitat of various living things, we implement waterfront area maintenance and control vegetation management in marine parks.
- At marine parks*, etc., in order to secure the growth environment for wild birds and aquatic organisms, we promote the development and expansion of beaches, tidal flats, and shore reefs and conduct monitoring, etc.
- We promote the development of facilities, tidal flats, and shore reefs that are useful for environmental studies in metropolitan parks and marine parks, so that Tokyo residents can learn about biodiversity preservation.
- We continue monitoring the natural environment at the Kasai Seaside Park so as to promote proper maintenance and environmental improvement of the tidal flat, and develop observation facilities that serve as a base for environmental studies and enlightenment.
- Concerning the regional biodiversity strategy*, we gather a wide range of opinions by holding study meetings with private companies, NGOs, etc., strengthen cooperation with the private sector, and promote the mainstreaming of biodiversity* in Tokyo.
- We revise the Regional Strategy of Biodiversity, we collect and organize basic information on natural environment, including the vegetation maps, greenery ratio*, and red lists, and implement diffusion and expansion of the system of “Edo Greenery Registration Area” for the promotion of greenery considering biodiversity preservation.
- In order to preserve valuable natural land left in Tokyo, which is the habitat of rare flora and fauna, we expand the designated areas for preservation and own such land for public use, and establish the “(tentative name) Preservation and Utilization Plan” of the preserved areas to improve value and attraction of the areas.
- Seizing opportunities for redevelopment projects, etc. within the supply areas of reclaimed wastewater*, we promote the utilization of reclaimed wastewater

as toilet flushing within buildings in the seaside sub-center area, etc. by expanding supply destinations to cover Ariake Arena, Ariake Gymnastics Centre, Ariake Tennis Park, etc.

② Realization of a sustainable resource recycling-based society

A. Promotion of reduction of resource loss

- For the realization of the sustainable Games, we conduct surveys on initiatives that contribute to the promotion of environmental considerations by businesses and Tokyo residents, and support the reuse of used goods, etc.
 - By establishing the "Tokyo Food Waste Reduction Partnership Conference" where representatives of food manufacturers, distributors, consumers, etc. gather together to examine measures to reduce food waste caused by business customs, etc. and conduct actual condition surveys, we promote the reduction of food waste in the distribution stage. In addition, adding representatives of the restaurant industry as members, we examine countermeasures against food waste at restaurants and promote collaborative efforts.
 - We implement the "Food Waste Reduction Campaign" in cooperation with companies to raise awareness of consumers, thereby promoting review of consumption behavior, and formulated the "Tokyo Food Waste Reduction Promotion Plan". <Brochure for raising awareness: "Tokyo Zero Food Loss Action">^[4]
- 
- We promote initiatives to reduce food waste at home in response to the "new normal" and encourage Tokyo residents to make a smart choice in consumption that reduce products left unsold by utilizing apps, etc., to check discount information on unsold goods and spreading a culture to take away leftovers in doggy bags.
 - We support municipalities that work to implement measures to reduce food waste and effective measures to reduce food waste of businesses by donating food before the expiration date to welfare organizations and facilities, etc.
 - We promote measures to reduce food waste utilizing advanced technologies including developing long-life food and optimization of supply chains based on demand and supply forecast using big data.
 - We utilize a system for the matching of municipalities that have food for disaster supplies and food banks to promote effective use of disaster supplies that come close to their expiration date.
 - We provide technical and financial support for the initiatives of municipalities

[4] Future Tokyo: Tokyo's Long-Term Strategy (TMG)

to promote separate collection of all plastic containers and packages and for the existing initiatives taken by local bodies to raise the recycling rate.

- We assign advisors with expert knowledge on 3R to offer advice for office buildings and commercial facilities, with the aim of promoting 3R of waste generated by business establishments.
- We provide opportunities of exchange for companies that are making leading initiatives to encourage them to make collaborations and co-creation for innovative technologies and commercialization of new business models. In addition, we support social implementation of new technologies and business models by providing support for demonstration experiments.
- We promote the “bottle-to-bottle” initiatives to recycle used PET bottles into new PET bottles in collaboration with soft drink makers.
- We transmit information of good practices in “new normal” , such as the reduction of single-use plastic containers, repair and long use of goods, in an understandable way.
- In order to prevent outflow of plastic waste to the ocean, we raise awareness of the marine waste problem widely among Tokyo residents and develop “Tokyo Marine Waste Zero Action” that will lead to cleanup activities, etc.
- As an emergency measure, we carry out a demonstration project aimed at curbing the use of new fossil fuels and reducing CO2 emissions and the environmental burden by using waste plastics retained in Japan as a fuel for industrial use in collaboration with industry organizations and supporting establishing a new recycling route in Japan.
- At the Tokyo Metropolitan Industrial Technology Research Institute, we support the development of products utilizing substitute materials for general purpose plastics and transmit the results, etc.

B. Promotion of recycling of waste

- We worked on the "Tokyo 2020 Medal Project" to use recycled metals from small household appliances collected throughout Japan to make about 5,000 medals given in the Tokyo 2020 Games in cooperation with the Organizing Committee, etc., and fostered the momentum for hosting the Games and also promoted resource recycling.



- We promote the formation of a recycling-based society, which proactively selects recycled materials as construction resources, by promoting the reuse of construction byproducts* such as concrete blocks based on the construction recycling promotion plan and construction recycling guidelines.
- We promote further 3R activities for business waste discharged from office buildings and commercial facilities through demonstration experiments.
- We introduce RPA* and other digital technologies to waste processing as a model and establish a diversified system of the 3R route that do not need the help of humans.
- We implement a model project to realize high level reuse and rebuilding at the time of disposal of solar panels, aiming for social implementation of it as the Tokyo model.
- Through activities of the "Team Mottainai" aimed at encouraging behavioral changes of individuals, we advocate the Mottainai awareness, aiming to foster momentum for the change of consumption behaviors.
- We implemented a model project to convert branches and leaves generated at the time of pruning at marine parks, etc. to fuel, and consider future recycling measures.

<Logo mark of "Team Mottainai">^[6]



③ Promotion of intercity exchanges regarding environmental measures

- We promote sharing of knowledge with Asian cities, etc. through initiatives

[5] Towards 2020 –Building the Legacy – (TMG)

[6] Tokyo Environmental White Paper 2020 (TMG)

such as intercity exchanges and international conferences in the fields including climate change, waste, and air pollution.

(5) Benefits

The following achievements will improve the urban thermal environment, and the establishment of the initiatives implemented by Tokyo residents and companies to deal with heat will enable Tokyo residents and visitors to Tokyo to spend comfortable time.

In addition, the environment-friendly lifestyles of Tokyo residents and business activities of companies will be established, resource loss in Tokyo will be reduced, and the recycling of waste will be promoted, leading to conversion to a society that realizes sustainable utilization of resources.

Furthermore, in order to solve environmental issues common to cities around the world, the cooperation in policies and technologies between TMG and other cities will be strengthened, and the experience and know-how of TMG will be disseminated, leading to the enhancement of its presence in the international community.

- The development of solar heat-blocking and water-retaining pavements on metropolitan roads will progress.
- The development of solar heat-blocking pavements on roads in the seaside area will progress.
- The creation of cool areas will be expanded through the installation of heat control equipment around the competition venues and at symbol promenade parks, etc.
- The ecosystem-friendly development will progress in the tidal flats, beaches, and shore reefs at metropolitan parks and marine parks.
- The recycling rate of general waste will be improved.
- The food waste will reduce.
- 3Rs of plastic waste will be promoted.

4. Facts and figures

Development of solar heat-blocking and water-retaining pavements on metropolitan roads	Approx. 157 km (in total) was developed (solar heat-blocking pavement: approx. 136 km; water-retaining pavement: approx. 21 km) (at the end of March 2021)
Development of solar	Development for 2.8 km completed

heat-blocking pavement on roads in the seaside area	
Creation of cool areas by developing heat control equipment around the competition venues	8 areas (in total)
Installation of heat control equipment at the Symbol Promenade Parks	Completed
Park maintenance with consideration for the ecosystem (in metropolitan parks)	Formulation of the natural environment investigation / preservation management plan: 16 parks (in total) Preservation and maintenance: 8 parks (in total) Monitoring survey: 17 times in 7 parks (in total)
Park maintenance with consideration for the ecosystem (in marine parks, etc. (tidal flats, beaches, shore reefs))	Completed at three parks A survey was conducted in one park Monitoring of tidal flats in the Wild Bird Park at Tokyo Port was implemented
Recycling rate of general waste	22.8% (in FY2018)
Formulation of the Tokyo Food Waste Reduction Promotion Plan in order to reduce food waste by half by FY2030	<ul style="list-style-type: none"> • Discussed the direction of initiatives of each entity for the reduction of food waste at the Food Waste Reduction Partnership Conference • Surveys on the amount of food waste in Tokyo and food waste generated by seasonal food were implemented • Food waste reduction campaign “Tokyo Food Waste Zero Action” was implemented
Further promotion of 3R activities for plastic waste	<ul style="list-style-type: none"> • ”Plastic Reduction Program” was established • ”Plastic Reduction Policy of TMG Buildings” was established • A campaign to reduce single-use plastics in collaboration with universities and office buildings

	<ul style="list-style-type: none"> • Support for building a new business model for the sustainable use of plastics
--	---

(Items in the table are achievements to March 2020 unless otherwise noted)

5. Explanation of Terms

Solar heat-blocking pavement	Pavement constructed by applying heat insulation materials that reflect the infrared rays which cause the road surface temperature to rise on the surface of the roads. This prevents heat storage on the pavement and suppresses the rise in road surface temperature by up to about 8°C
Food waste	Food-derived waste that is thrown away although it can be normally eaten
3R concept	A collective term for Reduction, Reuse, and Recycling of wastes
Eco-material	A material that is human-friendly, has a low environmental impact, and shows excellent characteristics and functions throughout the entire lifestyle from resource collection to manufacturing, use, and disposal. Recycled crushed stone, forest certified timber, etc.
Supply chain	A connection of processes from the raw material stage to the delivery of products and services to users
Test event	This refers to all events held for the purpose of testing whether facilities, personnel, management, etc. function normally, prior to the delivery of the Tokyo 2020 Games. It is stipulated that the event shall be held between 24 months to 2 months before the Games, and the contents of the event must be determined with the consent of the International Sports Federation that has jurisdiction over the relevant competition.
Last one mile	A route for pedestrians to walk connecting the station expected to be used by spectators near the competition venue and the entrance/exit of the competition venue. When platforms are built for the shuttle bus service for spectators, a route for pedestrians connecting the station expected to be used by spectators and the entrance and exit of the competition venue and the platforms
Center core area	Generally the area inside the Metropolitan Expressway

	Central Loop Line
Water-retaining pavement	Pavement with many gaps filled with water retention materials that absorb and retain water. The heat of vaporization deprived when rainwater soaked in the water retaining materials evaporates suppresses the rise in road surface temperature by up to about 10°C
Uminomori Club	The official name is the "Tokyo Uminomori Club". A forum for encouraging companies, NPOs, schools, and other similar organizations to conduct free exchange of opinions and proposals regarding attractive public events, public relations, and management of forest land, etc., prepare proposals, and form execution organizations, so as to widely disseminate information on "Uminomori (Sea Forest)" to both inside and outside Japan, and to provide Tokyo residents various opportunities for diverse and attractive public events and management of forest land.
Various Urban Development Schemes	Schemes that relax the floor area ratio, etc. for good building plans that make public contributions such as securing open spaces. General name of 4 systems regarding the district plans that designate redevelopment promotion districts, the specified blocks, and the high-level use districts based on the City Planning Act , and the comprehensive design based on the Building Standards Act
Greenery Program	A program that mandate the submission of a greening plan based on the nature conservation ordinance when a building is newly constructed, extended, or reconstructed on a site of a certain scale or larger
ICT	A term that stands for Information and Communication Technology. A general term of technologies, industries, facilities and services in various fields related to information processing and information communication.
Adaptable management	Measures to respond flexibly based on consensus building with various entities according to the results of setting targets and verifying that the plan has achieved the targets through monitoring after incorporating forecasts of a lapse into a situation that has not been expected in the original plan due to

	natural environmental changes as well as changes in the social background of environmental conservation / regeneration due to historical changes, regional characteristics, the judgment of businesses, etc. into the management system in advance
Marine park	A park formed by development of reclaimed land based on the Tokyo Marine Park Ordinance, where the citizens can interact with the sea and nature and enjoy recreation. This includes seaside parks, pier parks, and green road parks.
Biodiversity regional strategy	A basic plan for the conservation and sustainable utilization of biodiversity, formulated by local governments based on the Basic Act on Biodiversity
Mainstreaming of biodiversity	A situation where the importance of biodiversity conservation and sustainable utilization is widely recognized by various entities such as the national government, local governments, business operators, NPOs, NGOs, and the citizens, and reflected in their actions
Green ratio	The sum of the green coverage ratio and the park area and water surface ratio to the total area
Reclaimed wastewater	Water with water quality improved for the purpose of reuse by performing advanced treatment such as filtration and ozone treatment in addition to normal sewage treatment
Construction byproduct	All items collaterally obtained as a result of construction work. As types, construction-generated soil, construction-generated timber, concrete blocks, and the like are known. The amount of generation is expected to increase as social capital is renewed
RPA	A term that stands for Robotic Process Automation. A technology to automatically process works performed by humans, such as data entry and verification using computers following the present programs.
Team Mottainai	An organization aiming for raising the individuals' "consciousness of Mottainai (wastefulness)" so as to encourage the transformation of their consumption behavior through efforts such as saving food, saving materials, and saving energy. This team consists of companies, NGOs, individuals, etc.

6. References

- Towards 2020 –Building the Legacy- (PR Edition)
- Towards 2020 –Building the Legacy - (Main Part)
- New Tokyo. New Tomorrow. –The Action Plan for 2020-
- Strengthening of Policies to Realize the "Three Cities" (FY2018)
- Strengthening of Policies to Realize the "Three Cities" (FY2019)
- Strengthening of Policies to Realize the "Three Cities" (FY2020)
- Future Tokyo: Tokyo’s Long-Term Strategy
- Tokyo Environmental Master Plan
- Zero Emission Tokyo Strategy
- Aero Emission Tokyo Strategy Update & Report
- Zero Emission TMG Action Plan
- Tokyo Climate Change Adaptation Plan
- Tokyo Food Waste Reduction Promotion Plan