

"For the Earth." "For the Environment." "For the Future."

It's easy to put these thoughts into words.

We know the importance.

However, the difficult thing is, how to put them into action.

People tend to think about environmental action in this way.

But actually, the accumulation of our small steps will bring a big change in the future.

Recycle the plastic bottles.

Rethink the energy you use.

Feel grateful for nature.

Let's each take action in Tokyo, starting with what we can do right now.

Tokyo Environmental Public Service Corporation is here to take the first step with you,
move forward together.

Office Locations

Tokyo Environmental Public
Service Corporation
Head Office

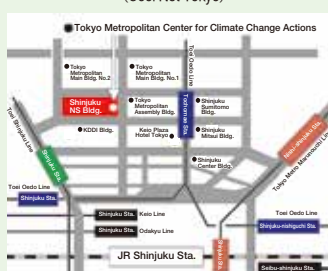


8F Tokyo Traffic Kinshicho Bldg.,
4-26-5 Kotobashi, Sumida-ku, Tokyo

ACCESS

- 1 min. walk from Kinshicho Sta. on the JR Sobu Line
- 1 min. walk from Kinshicho Sta. on the Tokyo Metro Hanzomon Line
- 1 min. walk from Kinshicho Sta. South Exit bus stop

Tokyo Metropolitan Center for
Climate Change Actions
(Cool Net Tokyo)



17F Shinjuku NS Bldg.,
2-4-1 Nishi-Shinjuku, Shinjuku-ku, Tokyo

ACCESS

- 7 min. walk from west exit of JR Shinjuku Sta.
- 6 min. walk from Shinjuku Sta. on the Metropolitan Subway Shinjuku Line and the Keio Line
- 3 min. walk from Tochomae Sta. on the Metropolitan Subway Oedo Line

Tokyo Metropolitan Research Institute for
Environmental Protection



1-7-5 Shinsuna, Koto-ku, Tokyo

ACCESS

- 10 min. walk from exit No. 3 of Toyoko Sta. on the Tokyo Metro Tozai Line

Chubu [Central Breakwater]
Landfill Site Management Office
(in Central Breakwater Joint Government Bldg.,
Bureau of the Environment)



2-4-76 Uminomori, Koto-ku, Tokyo

ACCESS

- Take a Metropolitan bus bound for Chuo Bohatei at Tokyo Teleport Sta. of Tokyo Waterfront Area Rapid Transit or Yurikamome Telecom Center Sta. and get off at the Kankoyokyu-Chubu-Godochoha-Mae stop.

For more information about our business and services, visit our website and Twitter accounts.

official X account
@kankyokosha1962



Tokyo Hydrogen Museum (Tokyo Suisomiru) X account
@suisomiru



Cool Net Tokyo X account
@coolnet_tokyo



TOKYO-ecosteps X account
@TOKYO_ecosteps



公益財団法人 東京都環境公社
Tokyo Environmental Public Service Corporation

☎ 03 (3644) 2189

Website <https://www.tokyokankyo.jp>

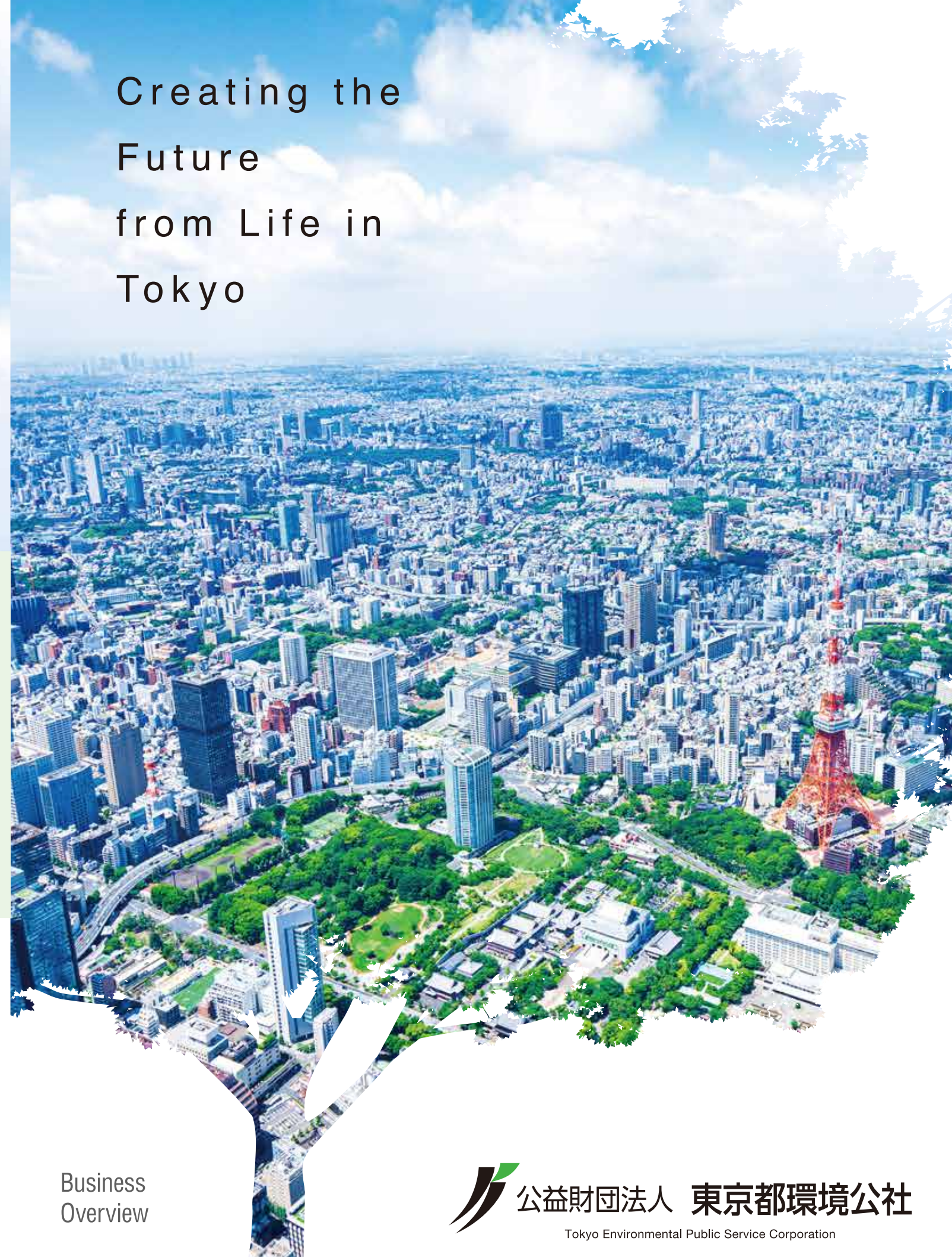


Japanese



Published August 2024

Creating the Future from Life in Tokyo



Business
Overview

公益財団法人 東京都環境公社
Tokyo Environmental Public Service Corporation



Tokyo Environmental Public Service Corporation will endeavor to address increasingly diversifying and serious environmental problems to achieve a sustainable, attractive, and vibrant city of Tokyo.

In recent years, the effects of global warming have become increasingly severe, ranging from life-threatening heat to unprecedented rainfall, and have already had a significant impact on our daily lives. Our traditional consumer society based on the mass consumption of resources has resulted in global environmental pollution, including pollution by plastics of marine ecosystems. To create a Smart Energy City and a comfortable urban environment, Tokyo Environmental Public Service Corporation (TEPSC) has promoted a wide range of operations, including energy conservation measures, promotion of proper waste disposal and sustainable resource use, conservation of the natural environment, and surveys and research that contribute to the improvement and enhancement of the environment. Given that the enormous impact of climate change and the urgent need for countermeasures have once again come to the fore, we will use our knowledge and expertise to encourage everyone to change their behavior to become more environmentally conscious and to proactively take on the challenge of resolving diversified and serious environmental issues, to realize a Zero Emission Tokyo that will decarbonize society as a whole. In this way, we aim to make Tokyo an attractive and vibrant city able to achieve sustainable growth.



TEPSC's efforts to achieve the SDGs



As we face various challenges related to global sustainability, people recognize anew the importance of the UN's Sustainable Development Goals (SDGs) as a common global effort.

The “sustainable society” that SDGs aim for is nothing less than a society in which humankind maintains a balance between the conservation and utilization of the global environment, where healthy ecosystem are maintained and restored so that where healthy and enriched lifestyle are realized in harmony with nature. As a public benefit organization that has been involved in solving environmental issues over a long period of time, it is our important responsibility to share the same philosophy as the SDGs and to promote efforts toward those goals. We have developed the “Sustainability Challenge”, a set of our initiatives to pursue sustainability. So that each and every one of us sees the SDGs as our own responsibility. We will work together with you to realize an environmentally friendly future and a sustainable society through corroboration and partnerships with various organizations.



MESSAGE FROM THE PRESIDENT

We leverage our wealth of hands-on experience and expertise to work with you to achieve a sustainable society

Since our founding in 1962, our scope of business and services has expanded from solid waste management to addressing global warming, conserving the natural environment, and conducting wide-ranging research. In all these activities, we work closely with the Tokyo Metropolitan Government (TMG) to tackle diverse environmental challenges.

Recently, the climate crisis has become even more serious and has entered a phase that requires immediate intervention. In addition, the environmental issues such as biodiversity loss and changes in the water and atmospheric environments are becoming increasingly diversified and complex, and need to be addressed as an urgent priority by the world as a whole. Against this backdrop, the TMG has formulated a new basic environmental plan and has accelerated its efforts in all environmental fields, with the aim of making Tokyo a green and resilient global city that paves the way to the future.

In response to these trends, TEPSC—TMG's partner in policy implementation—has established the TEPSC 2030 Vision, which outlines the direction of our business activities and initiatives as a frontrunner in the environmental field, including Carbon Half, Nature Positive, and Circular Economy. Based on this vision, we will continue to take on the challenge of resolving new environmental issues as part of our efforts to achieve a sustainable society.

We will also strive to strengthen governance by enhancing our management foundation from the perspectives of human resources, finance, and digital transformation, and by ensuring fair and sound organizational management. At the same time, we will aim to manage our corporation in such a way that our initiatives based on the creativity and practice of our employees will contribute to realizing the sustainable growth of society in general.

We would much appreciate it if you would continue to extend your blessing and support to us.

President Tokyo Environmental Public Service Corporation

Kenji Ogawa

TEPSC 2030 Vision

As a frontrunner in the environmental field, we have established the 2030 Vision to outline the direction of our business activities and initiatives toward achieving a sustainable society, as well as the kind of society we aspire to and the kind of organization we aim to become.

2030 Vision
<https://www.tokyokankyo.jp/vision/>



Japanese

About Tokyo Environmental Public Service Corporation

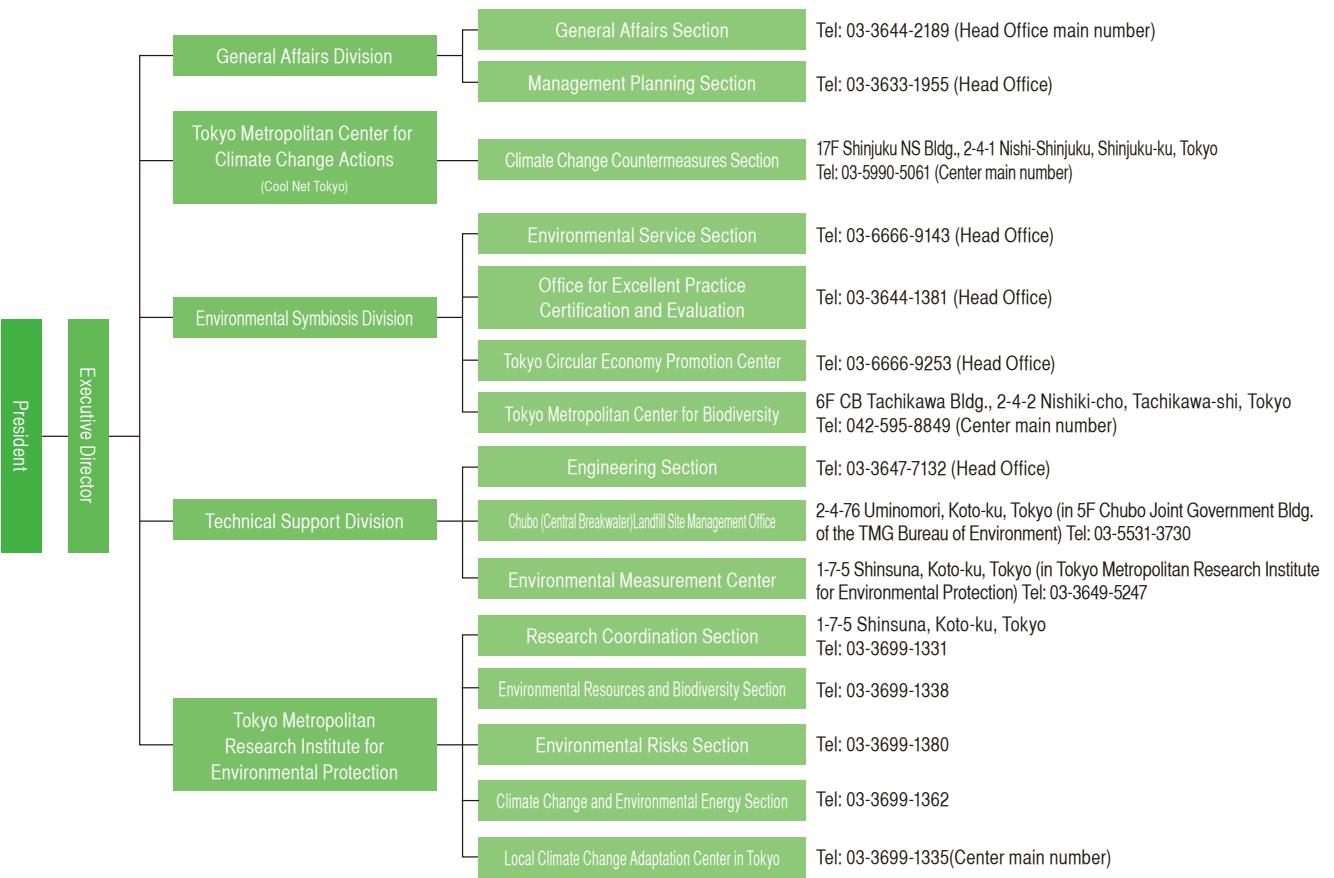
Overview

Name:	Tokyo Environmental Public Service Corporation
Head Office:	4-26-5 Kotobashi, Sumida-ku, Tokyo, Japan
Established:	May 14, 1962
Board of Trustees:	8 trustees
President:	Kenji Ogawa
Directors:	7 directors and 2 auditors
Number of employees:	438 (as of April 2024)
Basic assets:	JPY 356 million
Business scale:	JPY 13.51 billion (budget for FY 2024)

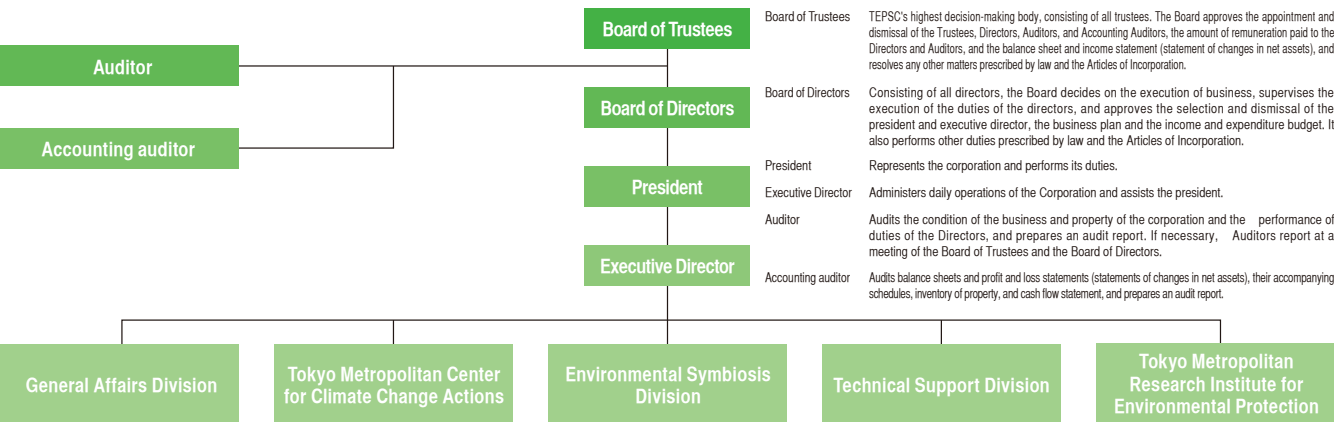
Business Licenses and Permits

- Licensed industrial waste collector and transporter No. 7
- Environmental Measurement Center certified under the ISO 9001 (quality) standard
- Designation as Tokyo Metropolitan Center for Climate Change Actions by the Governor of Tokyo
- Designation as a third-party evaluation agency for the Certification System on Compliance with Excellent Practice Standards by the Governor of Tokyo
- Designation as a legal inspection agency for septic tanks by the Governor of Tokyo

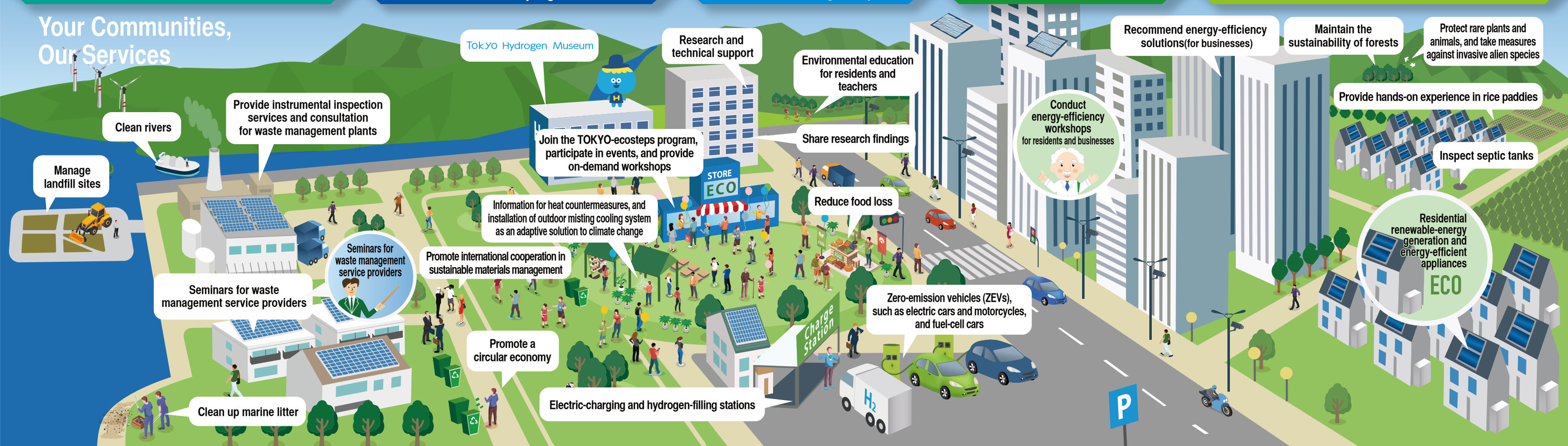
Organization



Governance Organization



Your Communities, Our Services



History

1962

Established as the Tokyo Metropolitan Environmental Improvement Association.
Starts collecting and transporting industrial waste for processing. (Discontinued in 2014)



Source: 100 Years of Waste Management Services in Tokyo

1970

Starts managing landfill sites (at Landfill Site No. 15, discontinued in 1985)



1973

Renamed to Tokyo Metropolitan Environmental Improvement Public Service Corporation.

Relocates head office becomes operational in Shiomi, Koto-ku, Tokyo.

1974

Starts receiving industrial waste for processing.
Starts environmental analysis and measurement services. (Discontinued in 2015)

Starts operating a composting facility. (Discontinued in 1993)

1980

Starts inspecting septic tanks for regulatory compliance. (Discontinued in 1999)

1985

Starts a street-sweeping service. (Discontinued in 1997)

1986

Launches river cleanup services.
Starts operating the Chubu Incombustible Waste Processing Center.

1990

Launches an instrument maintenance service for waste incineration plants.



1992

Starts operating a processing facility for pulverized solid waste. (Discontinued in 1998)

1995

TEPSC employees assist with waste disposal in areas affected by the Great Hanshin Earthquake.
Starts operating pneumatic pipeline systems for collection and transportation of the waste from household.

1996

Starts processing requests from residents to collect bulky waste.
Kanda Information Center becomes operational.
Starts operating the Keihinjima Incombustible Waste Processing.



2001

Starts accepting requests from residents to recycle home appliances. (Discontinued in 2022)

2002

Starts recycling fluorescent tubes. (Discontinued in 2019)
Launches a pilot project for proper disposal of medical waste.
Starts holding seminars on proper disposal of industrial waste.



クール・ネット東京

Launches a promotion network for global warming prevention in Tokyo.
Designated as Tokyo Metropolitan Center for Climate Change Actions by the Governor of Tokyo in 2008.

2005

2009

Entrusted with a comprehensive contract for operations related to the Central Breakwater Outer Landfill Site.
Launches an evaluation service for certifying excellent providers of industrial waste disposal services.
Designated by the Governor of Tokyo as an independent evaluation agency for certifying excellent providers of industrial waste disposal services.

2011

Starts assisting in accepting and disposing of disaster waste in the areas affected by the Great East Japan Earthquake. (Discontinued in 2014).
Starts assisting with PCB waste disposal.
Starts international cooperation in waste management.

2013

Starts assisting with the processing of disaster waste in typhoon-struck Oshima. (Discontinued 2014)

2015

Launches conservation projects for the natural environment.
Starts inspecting septic tanks for regulatory compliance.



2016

The Tokyo Hydrogen Museum opens to the public.

2019

The Emergency Response Center for Heatwaves becomes operational.

2020

Launches a plastic waste management service.

2022

The Tokyo Climate Change Adaptation Center becomes operational.



2022

The Tokyo Circular Economy Promotion Center becomes operational.

2024

The Tokyo Metropolitan Center for Biodiversity becomes operational.





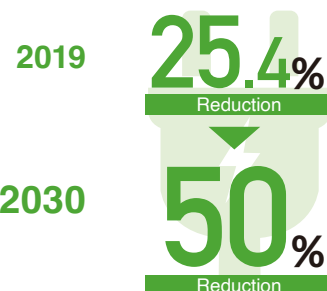
Carbon-free Energy

Making greater use of carbon-free energy

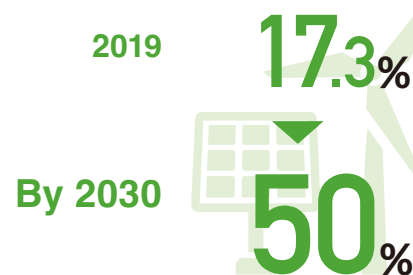
TEPSC encourages residents and small and midsize businesses to achieve greater energy efficiency and make greater use of renewable energy, as part of its efforts to achieve carbon neutrality and switch to carbon-free energy in Tokyo by 2050. We embrace the policy of achieving a smart energy city advocated by the TMG and assist its efforts to combat global warming out of our Tokyo Metropolitan Center for Climate Change Actions (Cool Net Tokyo).

Reduce energy consumption by 50% from the 2019 level and source 50% of electricity from renewable energy sources by 2030

Energy consumption

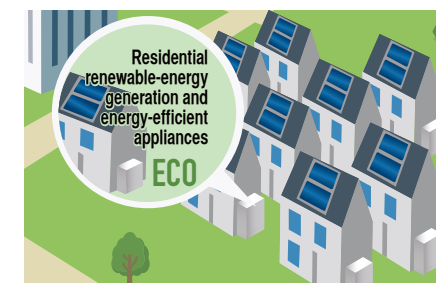
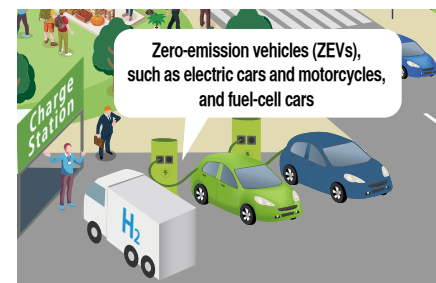
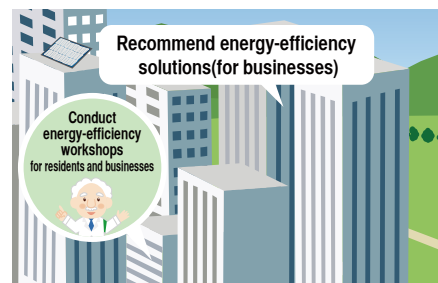


Percentage of renewable energy sources



Source: "Creating a Sustainable City: Tokyo's Environmental Policy 2021," published by the TMG

Your Communities, Our Services



Energy-efficiency and renewable-energy solutions for businesses

Assisting businesses in implementing energy solutions

We recommend tailored energy-efficiency solutions to businesses in Tokyo after conducting thorough on-site assessments free of charge. Real-world applications of solutions are presented in animated videos. In addition, we offer subsidies to implement renewable- and hydrogen-energy solutions.



Source: "Subsidies for Renewable Power Sourcing" brochure



Energy conservation measures illustrated by animation

Promoting environmentally friendly ZEVs*

Promoting ZEVs

We subsidize residents and businesses to buy zero-emission electric vehicles (EVs) and fuel-cell vehicles (FCVs). We also encourage car rental and sharing service providers to switch their fleet to ZEVs.

Helping expand a public charging network for ZEVs

As part of our efforts to accelerate the wider acceptance of ZEVs, we subsidize operators of electric-charging and hydrogen-filling stations to install and operate more of them.

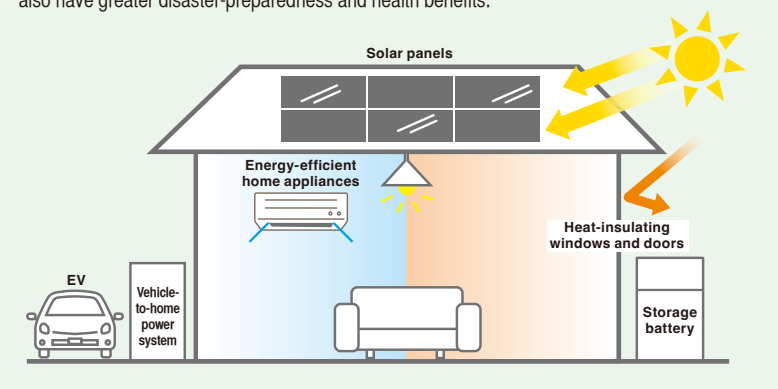
*ZEVs: Automobiles that run free of CO₂ or other GHG emissions in the tank-to-wheel mode, such as EVs, plug-in hybrid vehicles (PHVs) in the EV mode, and FCVs



Residential energy-efficiency and renewable-energy solutions

Encourage homeowners to implement energy-saving solutions

We subsidize homeowners to install solar panels and heat-insulating windows and doors that also have greater disaster-preparedness and health benefits.



Seminars to provide residents with energy-saving tips

TEPSC staffers are on hand at events sponsored by businesses and municipalities to provide residents with energy-saving tips and quizzes. We also hold seminars and participate in environmental events to enlighten residents on global warming and encourage them to take energy-saving actions.

Examples of seminar themes

Participants answer energy-saving quizzes.

- ▶ Mechanism of global warming
- ▶ Your energy-saving performance at home
- ▶ One-time investment that yields long-lasting energy-saving benefits
- ▶ Use less energy to live comfortably
- ▶ Switch to energy-efficient home appliances
- ▶ Energy- and cost-saving benefits of LED lighting
- ▶ Energy-saving use of hot water

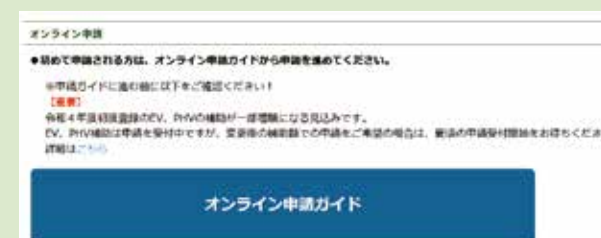
Note: Seminar themes can be mixed and matched to fit into available time slot.

TOPICS

Hassle-free online applications for subsidies

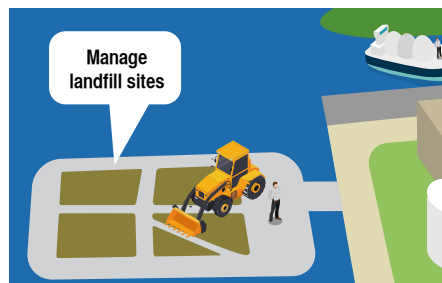
In the past, residents and business owners mailed completed application forms to receive subsidies. Today, to make it easier, we accept applications online for almost all types of subsidies.

Please note the amount of subsidy varies depending on when you made a purchase or installation and whether you are a resident or business owner. For example, if you wish to receive a subsidy for a ZEV, you can check an online application guide to find whether you are eligible for a subsidy and, if so, how much you will be paid. This online application system has been well received by applicants.





Your Communities, Our Services



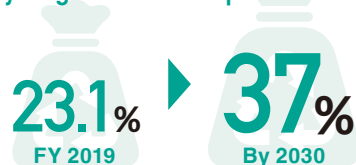
Transition to Sustainable Resource Circulation Society

Sustainable use of resources

The world population is projected to reach 9.5 billion in 2050, and annual resource consumption will increase 80% to 170 billion metric tons worldwide, which will likely aggravate climate change. Tokyo is responsible to take the lead in expanding the use of renewable resources in addition to the conventional efforts to save resources as we consume a large amount of resources, the majority of which are supplied from outside. TEPSC will strengthen its activities and services that support social infrastructure, such as the use of zero-emission plastics and food loss reduction in order to establish sustainable use of resource.

Improve the recycling rate of municipal solid waste to 37%,
reduce incineration of plastic waste by 40%,
and reduce food loss by 50% by 2030

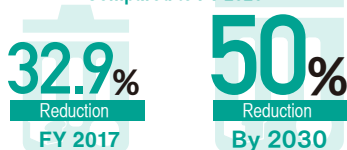
Recycling rate of municipal solid waste



Incineration of plastic waste from household and large office buildings Compared to FY 2017



Food loss Compared to FY 2020



Source: "Creating a Sustainable City: Tokyo's Environmental Policy 2021," published by the TMG

Waste disposal and preservation of the urban environment

The Waste Landfill Site, located inside the Port of Tokyo, is the last of its kind operated by the TMG. TEPSC conducts landfill operations in a manner to extend the usable life of the site with a finite capacity, while reducing the site's environmental impact.



Operations inside the Central Breakwater

TEPSC has been commissioned by the Clean Authority of Tokyo, which operates intermediate waste processing facilities on the Central Breakwater Inner Landfill Site, to receive waste, load and transport bulky waste to be pulverized, and keep the environment in and around the facility clean.



Operations outside the Central Breakwater

TEPSC is commissioned to supervise the receipt of waste shipments, carry out landfilling, and prevent scattering of waste on the Central Breakwater Outer Landfill Site, operated by the TMG.



Environmental conservation of rivers

To keep 29 rivers managed by the TMG clean, including the Sumida River and the Kanda River, we are commissioned to collect floating waste more than 300 days a year.



Sustainable materials management and proper disposal of resources

Seminars on industrial waste management

TEPSC provides seminars on the disposal of industrial waste and regulatory compliance for waste generators and waste disposal service providers.

Support for proper disposal of low-concentration PCBs

We encourage the disposal of PCB waste by subsidizing a portion of the analysis and disposal costs of electrical equipment waste potentially contaminated with PCBs owned by small and medium-sized businesses in Tokyo.

Promoting proper disposal of medical waste

We promote initiatives for the proper disposal of medical waste by providing a tracking and management system that combines electronic manifests and quality industrial waste disposal service providers in the disposal of waste from medical institutions.

Certification of excellence for industrial waste disposal experts and professionals

TEPSC is designated by the Governor of Tokyo as an independent agency to evaluate service providers of industrial waste disposal for certification of excellence.



Providing operational management and technical support at waste disposal plants

We are commissioned to operate waste disposal plants and maintain their instruments. We also provide technical support in waste disposal.

Inspection on unacceptable waste for incineration facilities*

More than 300 days a year, we inspect incoming collection vehicles at incineration plants in order to prevent the vehicles from bringing unacceptable municipal solid waste that may affect the safe operation of the plants.

Technical support associated with waste disposal plants

We leverage our technical expertise and know-how in waste disposal in accordance with the requests of municipalities to assist them in reviewing design documents for planned facilities and estimating design parameters for maintenance from a fair standpoint.

Operating incombustible waste disposal plants*

We process household incombustible waste brought from across the 23 wards of Tokyo and recover metals for recycling at two plants, Chubo and Keihinjima.



Photo courtesy of the Clean Authority of Tokyo

Inspecting septic tanks for regulatory compliance

TEPSC is authorized by the Governor of Tokyo to inspect septic tanks for regulatory compliance across Tokyo. Inspection fees can be paid on site by cash, credit card, e-money, or QR code.

*Commissioned by the Clean Authority of Tokyo

Operating a pneumatic pipeline system for MSW collection and transportation*

We operate a pneumatic pipeline system to collect and transport municipal solid waste (MSW) from household in the Tokyo Waterfront Area (Aomi, Daiba, and Ariake).



Maintaining instruments at incineration plants*

More than 300 days a year, we inspect and maintain flue-gas analyzers and other instruments at incineration plants located across Tokyo.



Promoting a circular economy*

Tokyo Circular Economy Promotion Center

TEPSC's Tokyo Circular Economy Promotion Center works to create a circular economy by sharing information about the sustainable use of resources and assisting specific initiatives by Tokyo residents and businesses in their efforts toward adopting circular practices.

Website of the center

Provides easy-to-understand information about initiatives to make circular economy more familiar to the public.
<https://www.circulareconomy.metro.tokyo.lg.jp/en/index.html>



Providing information and consultation on a circular economy

We offer a complete range of support such as giving advice on resource circulation for Tokyo residents and businesses, and provide information about how they can help achieve a circular economy on their own initiative.

Subsidized programs for the realization of a circular economy

Various subsidized programs are provided to assist businesses in their efforts to reduce plastics and food loss.

Assisting in recycling plastic containers and packages

We partially subsidize the costs of Tokyo municipalities for separately collecting plastic waste under the Containers and Packaging Recycling Act and the Act on Promotion of Plastic Resource Circulation.

Advising on 3Rs efforts

We work with municipalities in Tokyo to advise businesses on efforts to reduction, reuse, and recycling (3Rs) of plastic and other office waste.

International cooperation in sustainable materials management

We provide information on TMG's environmental initiatives through workshops, seminars, and facility tours for government officials from abroad.

Action for Zero Marine Litter in Tokyo

We have launched a program called "Action for Zero Marine Litter in Tokyo." It is intended to raise awareness among residents of the marine litter problem in Tokyo, in an effort to prevent any more plastic waste from flowing into Tokyo Bay. The program also encourages residents to volunteer to clean up marine and river litter.

Website for Action for Zero Marine Litter in Tokyo

Sources of marine litter and their environmental impact are illustrated. The site also provides information about events, such as cleanup activities aimed at reducing marine litter.
<https://www.tokyokankyo.jp/umigomi-zeroaction/en/>



TOPICS

Facility tours on the Central Breakwater Landfill Sites

TEPSC provides residents and elementary students with tours of waste disposal plants on the Central Breakwater Landfill Sites. The tours aim to enlighten the visitors on the need to extend the usable life of the sites and reduce household waste.



Website for facility tours

The website provides information about tours of the landfill sites and state-of-the-art recycling facilities.
<https://www.tokyokankyo.jp/kengaku/>



Japanese

Tour's points of interest



Bulky household waste is pulverized in the Pulverization Processing Plant for Large-size Waste on the Central Breakwater Inner Landfill Site.



Household incombustible waste is processed in the Incombustible Waste Processing Center on the Central Breakwater Inner Landfill Site.



Incineration ash is landfilled on the New Sea Surface Disposal Site.



When the rain falls on the landfill site, it goes through layers of waste and flows into Buffer Reservoir which adjust the volume and quality of the water. Finally, it's sent to Wastewater Treatment Plants.



Solid waste bound for landfill is measured and registered its weight at the gate to the New Sea Surface Disposal Site.



Central Breakwater Outer Landfill Site

Biodiversity Preservation and Coexistence with Nature



Preserving nature and biodiversity

With the aim of ensuring the proper management and utilization of conservation areas with well-preserved natural environments, TEPSC has been commissioned by the TMG to train volunteers to preserve greenery in conservation areas, share information about forest and greenery conservation activities through websites, maintain conservation areas, and preserve rare plants and animals.

Designated nature conservation areas in Tokyo

Total 50 areas
Total area Approx. 760 ha

Preserving the natural environment

Tokyo Metropolitan Center for Biodiversity

In April 2024, the Tokyo Metropolitan Center for Biodiversity was established as a base for facilitating coordination and cooperation among various entities involved in conservation activities in Tokyo, and for providing necessary information and advice.

Hands-on programs in nature conservation areas



TEPSC provides residents with an opportunity to have hands-on experience in conservation areas in Tokyo. Activities include planting rice and clearing undergrowth, which are easy for beginners to try. The program is intended to recruit and retain nature-conservation volunteers from among participants.

Tokyo Greenship Action and Tokyo Green Campus Program



We work with businesses, NPOs, and universities to carry out the Tokyo Greenship Action and the Tokyo Green Campus programs to stimulate public interest in the natural environment among a wide range of Tokyo residents.

Formulation and implementation of management plans with consideration for biodiversity

While obtaining advice and guidance from experts in biodiversity conservation, and based on natural environment surveys, we formulate and implement plans to improve biodiversity and appeal of each conservation area in cooperation with various entities, such as local activity groups and governments.



Operation of the "Go to SATOYAMA" website for forest and greenery conservation activities



We provide information on activities that meet the needs and skill levels of those who wish to volunteer, and we work to match them with workplaces and groups active in conservation areas. We also participate in events for residents organized by local governments to promote the appeal of conservation areas.

"Go to SATOYAMA" website

The website has posted photos and videos of satoyama in Tokyo and conservation activities conducted there.
<https://www.tokyo-satoyama.metro.tokyo.lg.jp/english>



Maintenance of conservation areas

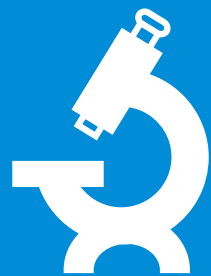
To conserve biodiversity and improve safety in conservation areas, we conduct periodic patrols, cut down and prune blocking/hazardous trees and other obstructions, renew sprouts and cut underbrush in coppices, manage bamboo forests, repair protective fences and signboards, conserve forest edges, and implement measures for trees affected by oak wilt.



Protection of rare plants and animals, and measures against invasive alien species

We check the growth conditions and the extent of damage, such as illegal digging, to rare plants and animals in conservation areas, protect them, and conduct vegetation management to conserve their habitats. We also conduct trapping, surveys, and the removal of non-native species that affect the original ecosystems of the conservation areas.





Your Communities, Our Services

Environmental Research and Climate Change Adaptation

Research projects to address environmental issues

Environmental issues are caused by a variety of mutually affecting factors such as nature, resource circulation, air, water, and energy. TEPSC is conducting a wide range of research projects to address complex and diverse environmental issues. Our projects include cross-disciplinary, comprehensive research to support the implementation of environmental initiatives by the TMG and theme-specific joint research with other institutions.

Three missions of the Tokyo Metropolitan Research Institute for Environmental Protection

Support environmental initiatives

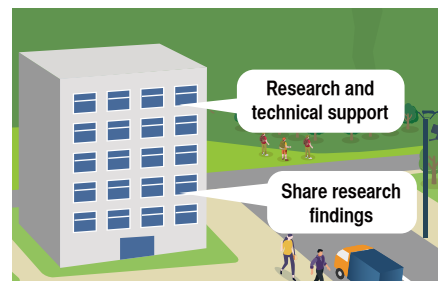
The institute provides scientific insights and findings necessary for the TMG to implement its environmental initiatives.

Work with private and public sectors and universities

The institute collaborates with universities, other institutions, and private-sector entities in research projects.

Conduct wide-ranging environmental research

The institute conducts wide-ranging environmental research projects funded by the Japanese government and the private sector.



Research projects

TEPSC is conducting a variety of research projects listed below to support TMG's environmental initiatives. These projects are either commissioned by the TMG, jointly conducted with other research institutions, or funded externally.

Environmental impact of automobiles

Our projects include verifying the extent of exhaust gas reduction achieved by vehicles that meet the latest regulatory standards and low-emission vehicles; measuring the level of emissions of unregulated substances; and validating the level of CO₂ emission reduction achieved by hybrid vehicles.

Resource circulation

We are researching the cyclical use of residual ash generated in the process of incinerating solid urban waste, the volume and types of plastic waste, and the environmental impact associated with the recycling of plastic waste.



Chassis dynamometer for oversize vehicles

Atmospheric concentration of particulate matters

We measure atmospheric concentration of PM 2.5 and conduct compositional analyses on it to ascertain where it originates and how it is generated. We also look into even smaller nanoparticles.

High-concentration photochemical oxidant

We look into volatile organic compounds (VOCs) believed to cause the formation of photochemical oxidant in order to ascertain its sources.

Analyses of harmful chemical substances and their environmental impact

We look into highly toxic persistent organic pollutants, which, even at an extremely low level, pose health risks to humans, in order to ascertain the scope and sources of their contamination.



Collecting seawater in Tokyo Bay

Aquatic conservation

To help improve the aquatic environment in Tokyo, we look into dissolved oxygen levels in ground water to come up with ways to improve them, and analyze the spread of hygiene indicator bacteria in rivers to ascertain their sources. We also assess the quantity and quality of groundwater in Tokyo.

Heatwaves

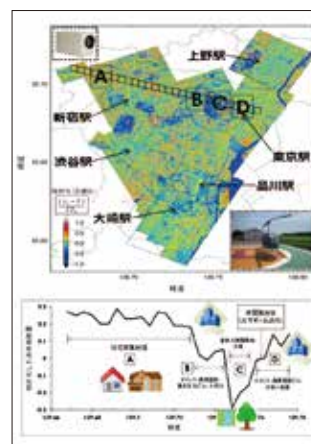
We are looking into the impact of heatwaves in Tokyo. We also ascertain how greening efforts will mitigate their impact in urban areas, using on-site observation, big data analyses, and mathematical modeling.

Hydrogen energy storage solutions to power communities

Hydrogen is seen as one of the next-generation energy sources. To help achieve a hydrogen-powered community in Tokyo, we are researching the potential application of carbon-free hydrogen produced by using excess renewable energy, as well as an energy management scheme based on hydrogen energy storage solutions.

Smart energy solutions for TMG-owned facilities

As part of efforts to develop smart energy solutions for TMG-owned facilities, we analyze their energy usage data to observe energy-consumption trends and identify both facilitative and obstructive factors for energy-saving efforts.



Results of aerial thermal environment evaluation

Technical support

We conduct vehicle exhaust tests, ensure the precision of analyses, and provide technical training for TMG's and municipal staffers.

Vehicle exhaust tests

We use chassis dynamometers to conduct vehicle exhaust tests and performance tests of boost-controlled deceleration devices installed in automobiles, both based on the Automotive NOx/PM Act.

Technical support for TMG and municipal staffers

We train them to acquire knowledge and technical know-how necessary for environmental management. Training programs include those on energy-saving schemes, the use of renewable energy, analyses of dioxin, VOC emission measurement, and compositional analyses of solid waste.

Independent and externally funded research

We started internally funded independent research projects in 2015 to encourage our own research teams to take the initiative to work on advanced themes of their choice. In September 2016, TEPSC was designated by the Minister of Education as a research institution eligible to receive government subsidies and started subsidized research projects in 2017. This arrangement, along with funding support provided by the Ministry of the Environment, enables us to conduct more sophisticated research.



Validating the precision of analyses

The TMG commissions private-sector service providers to monitor the quality of public-use water and groundwater and analyze the quality of commercial discharge water. TEPSC conducts tests on the same samples to validate the results supplied by the service providers.

International technical support on environmental issues

As part of international cooperation in addressing environmental issues, we share with city officials of other countries high-level, specialized information and technologies in the fields of air quality improvement and climate change.

Local Climate Change Adaptation Center in Tokyo

In January 2022, our Local Climate Change Adaptation Center in Tokyo became operational inside the Tokyo Metropolitan Research Institute for Environmental Protection. The center collects, organizes, and analyzes information related to the impact of climate change and adaptation to it in Tokyo. It also shares information with and provides technical advice for external parties. We gained a wealth of knowledge on heatwave-protective measures during the Tokyo 2020 Olympic Games and have accumulated research findings on the urban heat island phenomenon. We leverage these insights to work with the TMG and municipalities to promote climate change adaptation in Tokyo.



※LCCAC...
Local Climate Change
Adaptation Center



Two types of climate change solutions: Mitigation and adaptation

TOPICS

Public relations and communications

TEPSC holds an open house called "Let's Science" once a year to provide residents with opportunities to familiarize themselves with our research facility and activities. During an open house, visitors participate in workshops, scientific experiments under supervision of our research staffers, and a facility tour. The facility is also open for tours upon request. We share research findings at public and conference presentations and in annual reports and newsletters.





Your Communities, Our Services

Environmental Workshops and Educational Programs

Learn more about the environment

A wide range of environmental issues affect us around the world. One of the important missions of TEPSC is to provide residents with opportunities to become more environmentally conscious. To achieve this mission, we share the knowledge and expertise we have accumulated over the years in energy, resource circulation, the natural environment, and research fields.



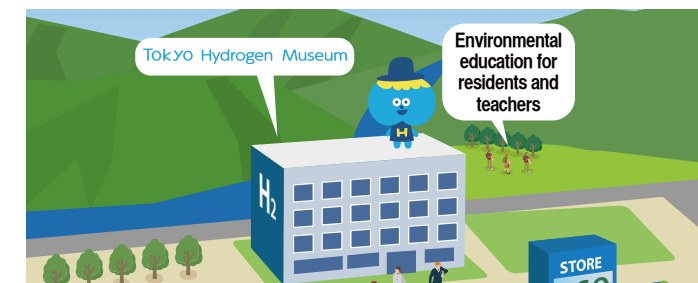
TEPSC website



Learn more about our programs that are designed to deepen environmental knowledge and promote action toward a sustainable future through practical experiences.

Learn and experience

<https://www.tokyokankyo.jp/learn/>



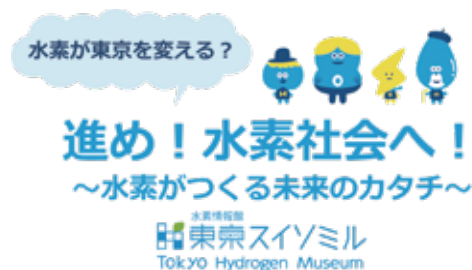
Theme-specific environmental classes

We provide residents of Tokyo with fun opportunities to learn about energy, biodiversity, and resource circulation. Our programs include in-person presentations by experts, facility tours, and online courses.



On-demand classes about hydrogen energy

We conduct on-demand classes for elementary students about hydrogen energy, which is expected to play a role in helping achieve a sustainable low-emission city.



Workshops for elementary school teachers

We hold workshops during the summer break, in which elementary school teachers can familiarize themselves with our environmental education programs intended for elementary students.



Reducing food loss

Information about food loss and recipe ideas to avoid food loss are provided online. We also hold seminars on food loss and visit elementary schools to provide classes on food loss.



Videos about how to avoid food waste

TOKYO-ecosteps

"TOKYO-ecosteps" is a membership program that enables everyone to enjoy and continue eco-friendly actions through experiences and learning.

TOKYO-ecosteps website

Once you become a member, you can earn "step points" for every eco-friendly action you take. You can also receive nice gifts depending on your accumulated points.
<https://www.tokyo-ecosteps.jp/>



TOKYO-ecosteps Instagram
@tokyo_ecosteps



Tokyo Ecomanabu

Tokyo Ecomanabu, TEPSC's learning website for children, is now available.

Tokyo Ecomanabu website

Learn about energy, resource recycling, the natural environment, and what you can do today for the future of the Earth.
<https://www.tokyokankyo.jp/study/>



水素情報館 東京スイソミル Tokyo Hydrogen Museum



Facility tour

The Tokyo Hydrogen Museum offers guided facility tours by appointment. The tour is popular for all ages—school children, business operators, and foreign correspondents. The duration of a tour is either 60 or 75 minutes and can be tailored to fit your needs.



Events

Events intended primarily for elementary students are held during the summer break and Golden Week (late April and early May), in which students can attend workshops full of fun and games on hydrogen energy and SDGs. In addition, we talk about hydrogen energy at environmental events organized by municipalities and via virtual online tours and YouTube.



Exhibitions

Visitors have opportunities to learn about hydrogen through hands-on experience to produce real hydrogen. They can also become familiar with a real-world application of hydrogen energy by observing the exhibit of a hydrogen-powered torch used in the Tokyo 2020 Olympic Games.



Tokyo Hydrogen Museum

<https://www.tokyo-suisomiru.jp/>

Japanese

Address 1-3-2 Shiomi, Koto-ku, Tokyo

Closed Mondays and from December 28 through January 4

Note: Open on Mondays on which a national holiday falls, and closed the following day

Open From 9 a.m. to 5 p.m.
(Enter by 4:30 p.m.)

Tel 03-6666-6761

Access

• 8 min. walk from Shiomi Stn. of the JR Keiyo Line
• 20 min. walk from Tatsumi Stn. of the Tokyo Metro Yurakucho Line
• 1 min. walk from the bus stop at Shiomi 1-chome of the Metropolitan Nishiki 13 bus line that runs between Kinshicho and Fukagawa Depot

Other programs

● Global warming mitigation (See page 9) ● "Go to SATOYAMA" website (see page 13) ● Open house for the Tokyo Metropolitan Research Institute for Environmental Protection (See page 15)