

# ENVIRONMENTAL REPORT 2025

[DIGEST VERSION IN ENGLISH]





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## Introduction from the President

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### Towards a place of creative dialogue



The global challenges facing humanity, such as climate change, loss of biodiversity, and pandemics, cannot be solved through a single discipline alone. What can the university do to address these challenges? I believe the answer lies in creating new knowledge through “dialogue” with people inside and outside the university. The University of Tokyo aims to be a place of creative dialogue where we confront challenges together and create the knowledge to solve them.

The “dialogue” that we value is not just a process of discussions and information exchange, but rather an essential action for knowledge creation. Asking questions is critical to the pursuit of knowledge, and discussing these questions with people from different backgrounds helps to deepen the dialogue for a more empathetic consensus. The University of Tokyo Charter, which was established as the basic principles of the organization and operation of the university, states in its preface that the University aims to serve the global public. Our mission is to work together with people from diverse backgrounds and around the world, building trust through dialogue to find clues and set guideposts towards solving the world’s most pressing challenges.

That is why we focus on DEI (diversity, equity, and inclusion) to foster a richer and deeper dialogue. In order to deepen academic knowledge and develop better solutions, it is important to have varied and diverse views. Furthermore, with the sustainable use of energy and resources becoming a current issue, and in need of cooperation in addressing global crises such as pandemics and climate change, it is now essential to approach these challenges we face from various positions in society, including academia. For example, promoting GX is one of the initiatives that various actors should work together to support. We believe that universities can serve as bridges between different sectors and facilitate cooperation across society.

With these visions and directions in mind, the University published UTokyo Compass in 2021 as a statement of guiding principles.

In addition to our environmental impact data, this report introduces the actions we are taking to achieve the goals set out in UTokyo Compass. We hope that you will see our efforts to achieve carbon neutrality and promote DEI, the education and research of the faculties and students who contribute to sustainability, and our initiatives for environmental health and safety management that support these efforts and activities. They are all part of our wish to establish ourselves as a place for knowledge creation through dialogue.

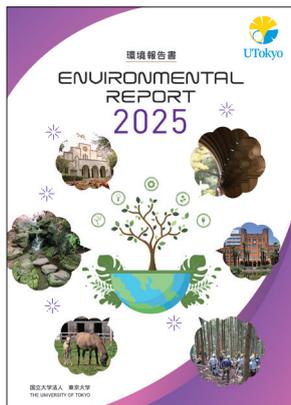
Teruo Fujii, President of the University of Tokyo

藤井輝夫

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## Words on the Cover

### Dialogue with the Environment 2



The cover is designed to reflect the policies of the University of Tokyo, as presented in UTokyo Compass. It features heartwarming, friendly illustrations of the Earth and speech bubbles in the colors of the four seasons at the University of Tokyo, befit our environmental report. This concept will be used for three years starting from FY2024.

The University of Tokyo considers "dialogue" to be "the practice of seeking to know", which is an essential part of the process of realization. Through dialogue, the University continues its efforts to solve global problems and realize a university that everyone in the world would want to join, while collaborating with stakeholders in and outside the University. This publication will continue to report on the results of various "dialogues" the University of Tokyo has with the environment.

Photographs on the cover page:	
(2)	(3)
(6)	(1)
(5)	(4)

(1) The Institute of Medical Sciences Bldg. 1  
 (2) Lecture Theater (Classroom No. 900)  
 (3) Faculty of Law & Letters Bldg. 1, 2  
 (4) The University of Tokyo Chiba Forest  
 (5) Animal Resource Science Center  
 (6) Sanshiro Pond

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## Reporting Scope

### (1) Articles, topics, and data on health, safety, and society:

The University of Tokyo as a whole

### (2) Data on the university's environmental impact:

The University of Tokyo as a whole

(Data from six campuses – Hongo, Komaba I, Komaba II, Kashiwa I, Kashiwa II, and Shirokanedai – are used for waste data.)

## Reporting Period

### (1) Articles, topics, etc.:

FY2024 (April 2024 to March 2025)

### (2) Data on environmental impact, health, safety, and society:

FY2024 (April 2024 to March 2025)

The graph shows five years' worth of data for comparison.

(The target period of articles published outside the specified period is clearly indicated in each case.)

## Editorial Policy (Approach to the Preparation of the Environmental Report 2025)

This report not only presents data on the environmental impact of the University of Tokyo, but also introduces the initiatives involving environmental considerations, sustainability, the promotion of GX (Green Transformation), diversity, as well as environmental, safety, and health management. To clearly indicate the relationship between these efforts and the SDGs, icons of closely related SDGs are presented in the articles.

If you click on the URL in the report, you can directly view the details of the article and the websites of the affiliated laboratories, so please utilize this feature. You can use a search engine to search for “The University of Tokyo Environmental Report” or view it on the Environmental Report page on the University of Tokyo's official website.

<https://www.u-tokyo.ac.jp/ja/about/actions/public05.html>

Guidelines: Ministry of the Environment's Environmental Reporting Guidelines (2018 Edition)

### SUSTAINABLE DEVELOPMENT GOALS



## The University of Tokyo Environmental Report Working Group

### Working Group Members

**Takeshi Imoto** (Head of WG, Division for Environment, Health and Safety), **Takashi Tamura** (Graduate School of Arts and Sciences), **Kentarō Honma** (Institute of Industrial Science), **Kazuo Tatebayashi** (Institute of Medical Science), **Naoki Kawashima** (Institute for Solid State Physics), **Yayoi Miura** (Earthquake Research Institute), **Hirotake Mizuguchi** (Graduate School of Agricultural and Life Sciences), **Tomohiko Tatsumi** (Graduate School for Law and Politics), **Ei Bannai** (University Hospital), **Katsuhiko Yano** (University Hospital), **Hirohiko Houjou** (Environmental Science Center), **Masashi Tsuchiya** (UTokyo Sustainable Campus Project), **Masanobu Ogihara** (Environmental Group), **Akiko Ishide** (Environmental Group), **Akio Tanabe** (Environmental Group), **Shiho Aoki** (GX Promotion Group), **Keisuke Kanayama** (GX Promotion Group), **Keitaro Tanoi** (Center for Coproduction of Inclusion, Diversity and Equity), **Masaki Onizawa** (Center for Coproduction of Inclusion, Diversity and Equity), **Hisao Mitsugi** (Center for Coproduction of Inclusion, Diversity and Equity), **Lisa Akahira** (Division for Environment, Health and Safety), **Masahiro Okura** (Division for Environment, Health and Safety), **Hiroaki Koike** (Division for Environment, Health and Safety), **Yoshiyuki Ieda** (Environment and Safety Group), **Hiroaki Tsukada** (Environment and Safety Group), **Masayo Saigo** (Environment and Safety Group)



Online Working Group meeting

The objective of the University of Tokyo Environmental Report Working Group is to: (1) decide on the editorial policies (2) specify the contents and items for disclosure (3) select articles that introduce the university's education and research (4) decide on the design, and (5) conduct the final review and make the final decisions. The Working Group is composed of faculty members representing each faculty/graduate school/research

institute, members of the Division for Environment, Health and Safety, staff of the Environmental Group of the Facilities Department, staff of the GX Promotion Group in the Management Planning Department, staff of the UTokyo Center for Coproduction of Inclusion, Diversity and Equity, and others. The contents of the articles were discussed at the Working Group meeting held on May 19.

### Editor (Environmental and Safety Group)

Masayo Saigo, Hiroaki Tsukada, Yoshiyuki Ieda

## Environmental Philosophy and Basic Environmental Policy of the University of Tokyo

The University of Tokyo Charter states that the University of Tokyo will contribute to the coexistence of humanity and nature, the creation of a safe environment, the balanced and sustainable development of various regions, the advancement of science and technology, and the critical inheritance and creation of culture through its education and research. Based on this, the University of Tokyo has established the following “Environmental Philosophy of the University of Tokyo” and “Basic Environmental Policy of the University of Tokyo” in order to clarify specific environmental initiatives.

### Environmental Philosophy of the University of Tokyo

Since the beginning of the 21st century, there has been an even stronger demand for society to transform itself from a wasteful system with mass production, mass consumption, and mass disposal of resources to a recycling system that supports sustainable development. In accordance with this major trend and the University of Tokyo Charter, the University of Tokyo, as a world-leading university, is nurturing human resources capable of responding to the demands of society with accumulated knowledge and a global perspective and is contributing to the formation of a recycling-oriented society through active cooperation with external entities. In this way, we are returning to society the fruits of the education and research achieved through the resources entrusted to us by the Japanese people and society. We disclose the full details of the University of Tokyo’s environmental conservation activities and research activities for environmental improvement, and we aim to build an environmentally friendly campus. In addition, the University seeks to actively transform itself by exposing itself to evaluation by society as an “open university” and will continue to contribute to the creation and global exchange of science, knowledge and culture related to environmental improvement, as well as to the sustainable development of society. To achieve these goals, we continuously conduct our activities in accordance with the Basic Environmental Policy of the University of Tokyo.

### Basic Environmental Policy of the University of Tokyo

#### Education and Research

1. The University of Tokyo shall integrate educational and research activities that leverage its characteristics as a comprehensive university to contribute to the advancement of science and technology related to the environment and contribute to the development of an environmentally friendly culture.

#### Social Responsibility of the University

2. All members of the University of Tokyo shall comply with the environmental laws and regulations applicable to university administration and the standards established by the university. Each shall also endeavor to prevent environmental pollution caused by research activities.

#### Reduction of Environmental Impact

3. The University of Tokyo shall aim to reduce the environmental impact of running the University and conducting educational and research activities, strive to conserve resources and energy, and pursue sustainability and the improvement of activities by making the most effective use of the resources entrusted to us by the Japanese people and society.

#### Sustainable Development of Global Society

4. The University of Tokyo shall contribute to the sustainable development of a global society by actively engaging in research in collaboration with other universities and research institutes in Japan and overseas.

#### Local Environmental Conservation

5. The University of Tokyo, as a member of the local community, shall contribute to the preservation of the local environment by conducting University operations in an environmentally friendly manner.

#### Self-Improvement

6. The University of Tokyo shall establish environmental objectives and targets for achieving its environmental policy and conduct environmental conservation activities with continuous reviews and improvement measures.

#### Disclosure of Information

7. The University of Tokyo shall self-inspect activities that affect the environment and disclose environmental information to the University community and the greater public.



## 01

## Distribution of the University of Tokyo's Offices and Facilities

The University of Tokyo is comprised of 10 faculties, 15 graduate schools, 11 affiliated research institutes, six University Joint Education and Research Institutes, four Institutes for Advanced Study, five Interdisciplinary Research Institutes, three National Joint-Use Institutes, and 44 Collaborative Research Organizations, as well as many facilities attached to the faculties, graduate schools, and affiliated research institutes, such as the University Hospital and libraries. The University of Tokyo's facilities are widely distributed throughout Japan and overseas.

[https://www.u-tokyo.ac.jp/ja/intl-activities/overseas-offices/list\\_of\\_overseas\\_offices.html](https://www.u-tokyo.ac.jp/ja/intl-activities/overseas-offices/list_of_overseas_offices.html)

## Distribution Map of Overseas Offices, etc.



## General Overview

Founded ● April 12, 1877

History ● [http://www.u-tokyo.ac.jp/gen03/b03\\_01\\_j.html](http://www.u-tokyo.ac.jp/gen03/b03_01_j.html)

Members ● 11,948 (directors, academic and administrative staff, etc.)

Number of facilities ● 48 facilities

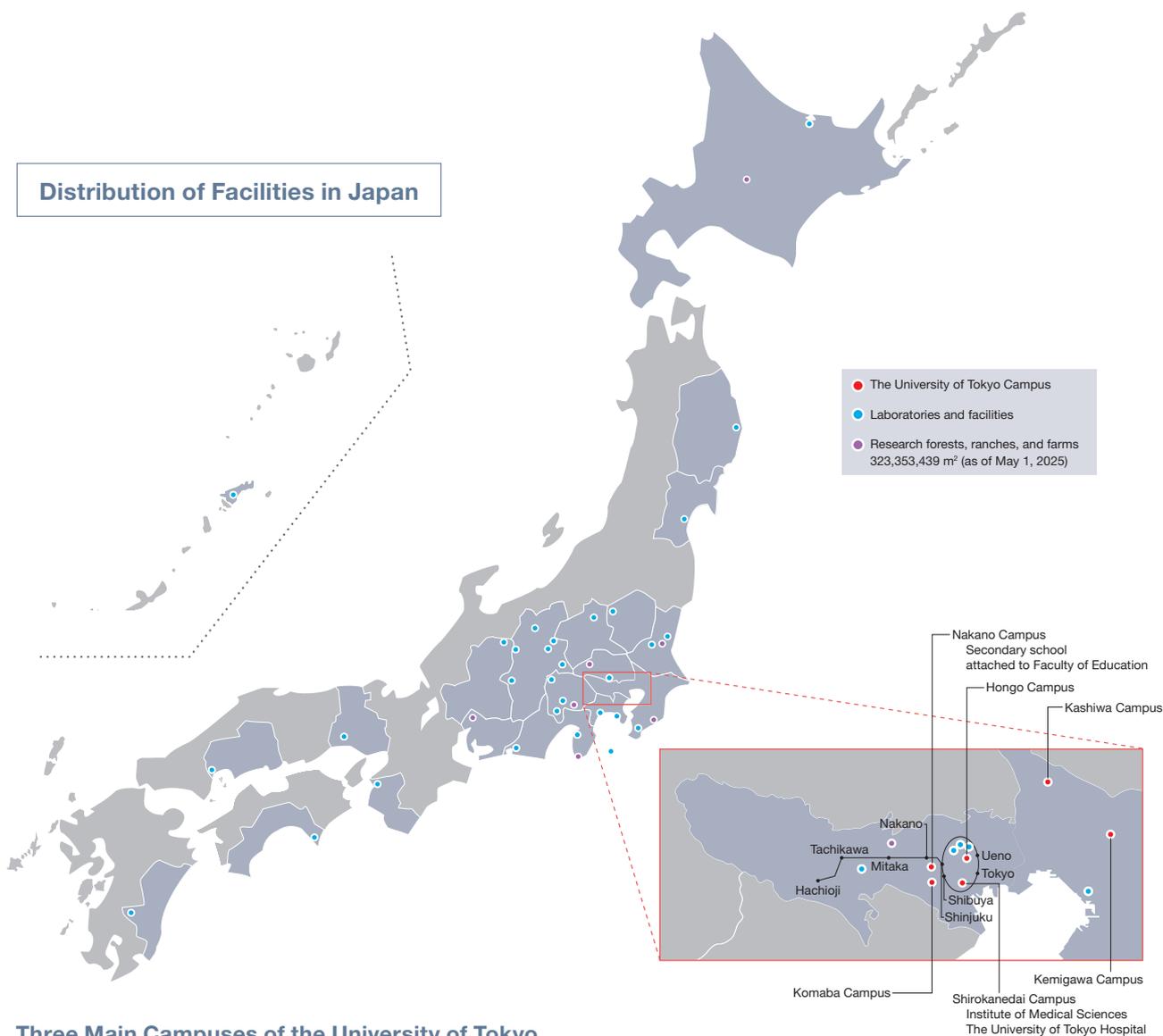
Site area ● 325,819,298 m<sup>2</sup>

Total floor area of buildings ● 1,825,799 m<sup>2</sup>

Directors, academic and administrative staff, etc.			Faculties			Graduate schools		
	Male	Female		Male	Female		Male	Female
Directors, etc.	17	4	Undergraduate students	11,052	3,022	Master's degree	5,386	1,867
Academic and administrative staff, etc.	6,628	5,299	Undergraduate researchers	10	4	Professional degree	479	350
Subtotal	6,645	5,303	Undergraduate auditors	20	10	Doctoral degree	4,784	1,978
			Subtotal	11,082	3,036	Graduate researchers, etc.	363	252
						Subtotal	11,012	4,447
			International students	Male	Female	International students	Male	Female
			Undergraduate students	311	161	Master's degree	1,182	700
			Undergraduate researchers	1	1	Professional degree	65	97
			Undergraduate auditors	0	0	Doctoral degree	1,514	860
			Subtotal	312	162	Graduate researchers, etc.	305	227
						Subtotal	3,066	1,884
<b>Total</b>	<b>11,948</b>		<b>Total</b>	<b>14,118</b>		<b>Total</b>	<b>15,459</b>	

(As of May 1, 2025)

## Distribution of Facilities in Japan



## Three Main Campuses of the University of Tokyo

### Hongo Campus

The Hongo Campus, with iconic scenery that symbolizes the University of Tokyo, such as the Red Gate, Yasuda Auditorium, the Avenue of Ginkgo Trees, and Sanshiro Pond, is home to many National Important Cultural Properties and Registered Tangible Cultural Properties. In addition to preserving the historical environment represented by this landscape as a valuable one, the Hongo Campus is striving to create an environment suitable for assuming a central role in education and research from the Senior Division of the undergraduate level faculties (specialized courses) through to the graduate schools. The Hongo Campus includes facilities in Hongo, Asano, and Yayoi Areas, as well as the University of Tokyo Hospital.



Photo by Yuji Ozeki

### Komaba Campus

#### Komaba I

This campus houses the Junior Division of the College of Arts and Sciences program (1st and 2nd years), the Senior Division of the College of Arts and Sciences program (3rd and 4th years), the Graduate School of Arts and Sciences, and the Graduate School of Mathematical Sciences. The leafy campus is filled with educational and research buildings. Many buildings of historical value remain, including the Komaba Museum, which is open to the public, and Classroom No. 900, which was designed as companion to the Komaba Museum. Since all students who enter the University of Tokyo spend the first half of their undergraduate career at the College of Arts and Sciences, it also serves as a base for students' circle activities.

#### Komaba II

The Institute of Industrial Science and the Research Center for Advanced Science and Technology support the most advanced academic research in these fields and graduate education in the research process.



### Kashiwa Campus

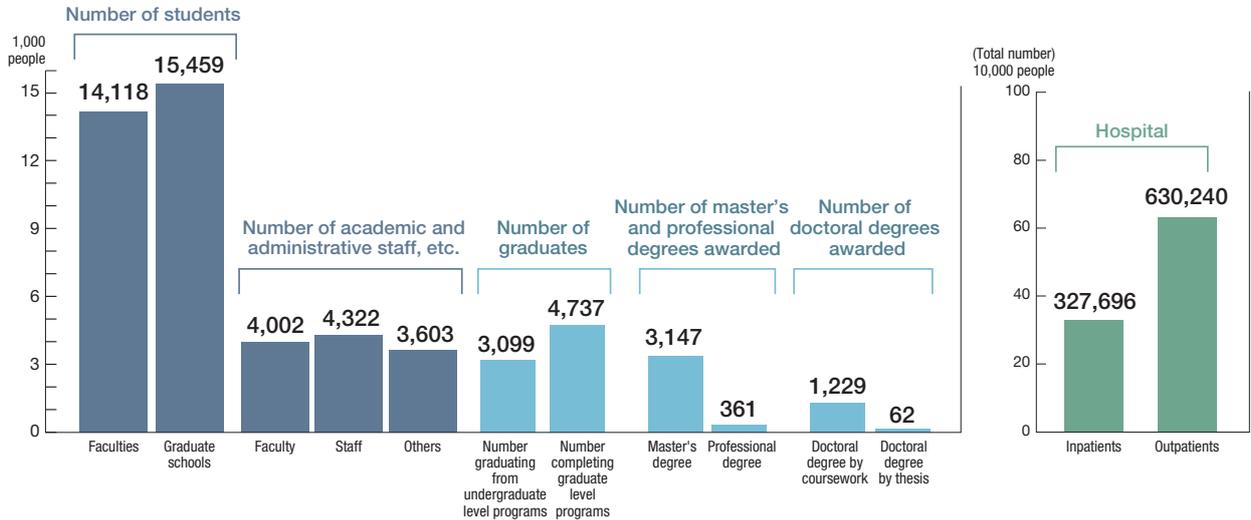
The Kashiwa Campus together with the Hongo Campus and Komaba Campus comprises the three main campuses of the University of Tokyo. In the spirit of academic integration, the main Kashiwa Campus, the Kashiwa II Campus, and the Kashiwa-no-ha Station Campus work together to realize the three prongs of the University of Tokyo's philosophy of education and research: "promoting world-leading research and the creation of new academic fields", "international collaboration between students and local residents and the formation of distinguished international education and research centers", and "social implementation of university research through the promotion of regional collaboration and social collaboration".



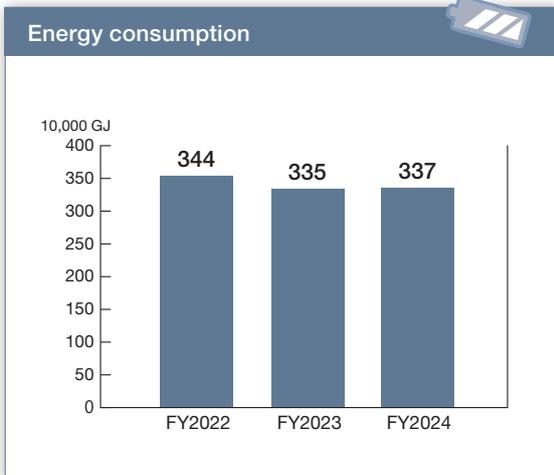


## 02

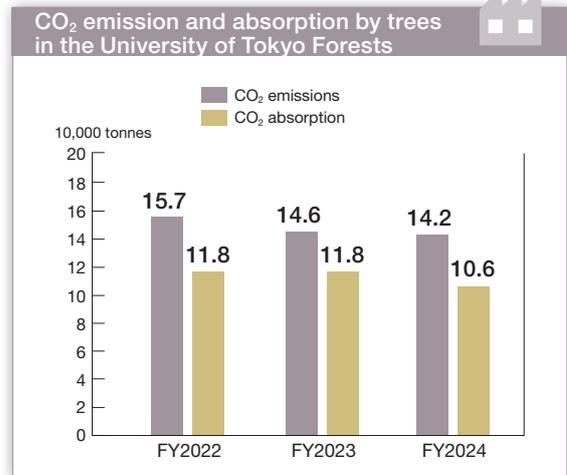
### Overall Picture of the University's Activities and Environmental Impact



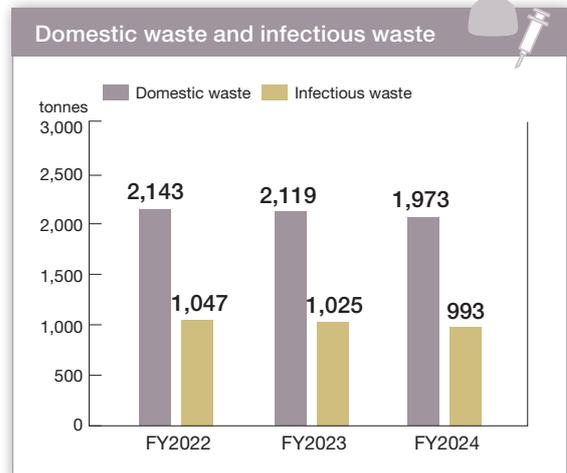
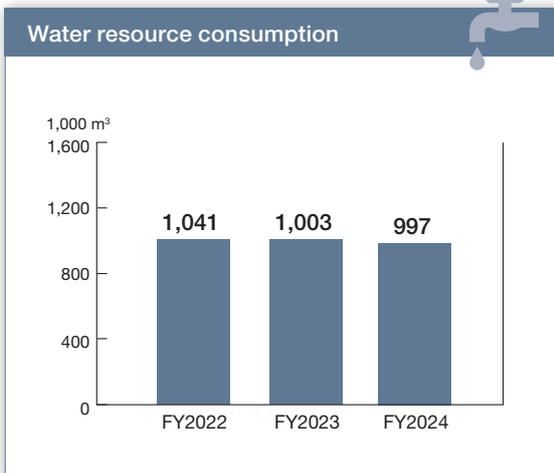
#### INPUT



#### OUTPUT



\*The CO<sub>2</sub> absorption is calculated for the University of Tokyo Forests (Forest Management Committee).



# 03

## University-Wide Environmental Safety Management System

### System introduction

In order to ensure environmental safety and health on campus, the University of Tokyo has established the Division for Environment, Health and Safety in its Administration Bureau along with the Environmental Safety Management Offices in its faculties/graduate schools/research institutes. Academic and administrative staff work together to solve a wide range of problems while strictly complying with laws and regulations, enhancing safety education, preventing the recurrence of accidents and disasters, managing chemical substances, utilizing safety and health systems, and conducting patrols by industrial physicians. With the aim of creating a safe and secure environment for education and research, the Division for Environment, Health and Safety is working as one to further enhance environmental safety and health in cooperation with all university organizations and faculties/graduate schools/research institutes, including the Environmental Science Center, the Isotope Science Center, the Cryogenic Research Center, the Office for Life Science Research Ethics and Safety, and the Health Service Center. Our FY2024 initiatives are described below.

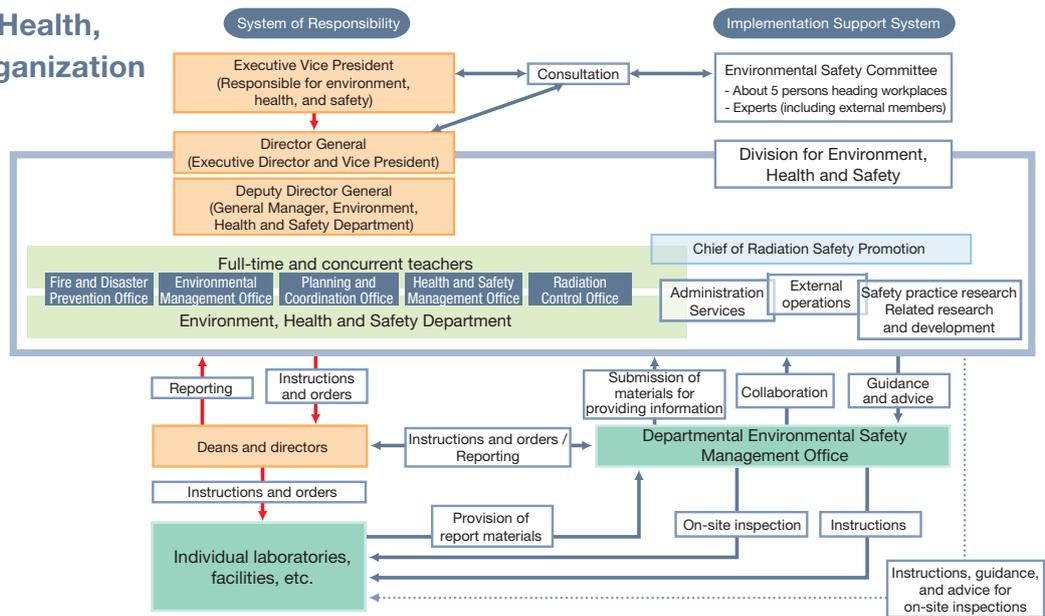
<https://kankyoanzen.adm.u-tokyo.ac.jp/>

Regarding chemical substance management, we held seminars for Chemical Substance Management Facilitators, etc. in each activity unit, including departments, special courses, and laboratories, in accordance with the framework established in the last fiscal year due to the revision of the Ordinance for Enforcement of Industrial Safety and Health Act. In addition, the University of Tokyo Chemicals Information Management System (UTCIMS) was upgraded to allow users to check the exposure risks of chemical substances they use.

In the area of fire and disaster prevention, we have continued the fire risk assessments we began last year, with the objective of developing and expanding the fire and disaster prevention system, identifying fire risk factors and taking measures to reduce the risk of incidents.

It takes time for a safety culture to take root in a university, which consists of people of various backgrounds. Nevertheless, we are steadily promoting the development and strengthening of this system, partly basing our efforts on past examples. We will continue striving to improve the environmental health and safety of the University and to ensure the safety of our students, academic and administrative staff, as well as local residents.

### Environment, Health, and Safety Organization



# 04

## Targets Set for FY2024 and Status of Achievement

Item	Targets set for FY2024	Status of achievement	Future initiatives
<b>Reduction of CO<sub>2</sub> emissions</b>	Total emissions were reduced continuously by the UTokyo Climate Action initiatives.	There was a 19.9% reduction in FY2023 compared to the base year FY2013 (the electricity emission factor has not yet been determined for FY2024).	Reduce the CO <sub>2</sub> emissions by 50% from FY2013 levels by the end of FY2030 through the efforts of the UTokyo Climate Action.
<b>Chemical substance management</b>	Following on from the previous year, a new chemical substance management system is being developed in line with the revision of the Ordinance for Enforcement of the Industrial Safety and Health Act, etc.	The University of Tokyo Chemicals Information Management System was upgraded to allow users to check the risks of exposure to the chemicals they use.	Supported data collection for the addition of chemical exposure risk reduction measures to the agendas of each district health committee.
<b>Fire prevention and disaster prevention</b>	Enhancement and expansion of disaster management systems for fire and disaster prevention.	Fire risk assessment was carried out, and measures for fire reduction were taken.	Prevent fires by improving the implementation rate of fire risk assessments.



## The University of Tokyo Guidelines for Action

### ✦ UTokyo Compass

UTokyo Compass is a statement on the guiding principles of the University of Tokyo, which express the ideals to which our university should aspire and the direction it should take, under the title “Into a Sea of Diversity: Creating the Future through Dialogue”. It was formulated under Teruo Fujii, the 31st president, and announced in September 2021. The name UTokyo Compass implies that it will mark the course for the University of Tokyo as it embarks on a new voyage under the leadership of President Fujii, a researcher of oceanographic engineering.

In order to realize a university that values creativity, diversity, and inclusion achieved through dialogue and is a place that anyone in the world would want to join, the Basic Policy establishes 20 goals and a concrete action plan for achieving those goals from the standpoint of “establishing management capacity” for autonomous

and creative activities, and from the threefold perspective of “knowledge”, “people”, and “place”. As a comprehensive university that serves the global public through the creation of a virtuous cycle, the University of Tokyo is engaged in the pursuit of truth and the creation of academic knowledge as it nurtures diverse, highly competent, human resources while endeavoring to find solutions for the various global issues facing humanity such as stewardship of the global commons for future generations.

In May 2024, we released UTokyo Compass 2.0, which reflects our progress to date and new initiatives. UTokyo will continue to promote dialogue with diverse stakeholders involved in our mission and ideals and will work hand in hand with society to create an ideal vision for a shared future.

## UTokyo COMPASS 2.0 20 Goals



1. Develop an Autonomous and Creative University Model
2. Formulate a Sustainable Management Strategy and Expand the Functions of the University
3. Cultivate Support and Appreciation for the University's Roles



4. Seek Solutions to Global Problems
5. Promote Diverse Scholarship
6. Generate Excellent Academic Knowledge
7. Generate Value through Co-creation with Industry
8. Promote Responsible Research



9. Nurture Inclusiveness and Capacity for Creative Dialogue
10. Nurture an International Outlook
11. Undergraduate Education: Cultivate Disciplinary Expertise, Wide-ranging Knowledge, and High Ethical Standards
12. Graduate Education: Cultivate Advanced Disciplinary Expertise and Practical Capabilities to Tackle Next-Generation Problems
13. Support Early-Career Researchers
14. Cultivate Administrative Staff with Advanced Expertise and a Creative Mindset
15. Connect the University and Society through Bidirectional Recurrent Education



16. Create a Supportive and Empowering Campus that Anyone in the World Would Want to Join
17. Support Education and Research Activities
18. Expand the Campus in Cyberspace
19. Extend Our Place into Wider Society
20. Extend Our Place Internationally

Plan 1: Manage global systems responsibly  
Plan 2: Decarbonize the activities of the UTokyo organization

Plan 3: Pursue co-creation with local communities toward green transformation

# Achieving a Low-Carbon Society, Starting with the University of Tokyo

## 01 Response to the Race to Zero

Green Transformation (GX) is one of the main initiatives in UTokyo Compass, the guiding principles of the University of Tokyo released in September 2021. In October of the same year, the University of Tokyo joined the Race to Zero, an international campaign under the United Nations Framework Convention on Climate Change (UNFCCC), as part of its efforts to accelerate its climate change initiatives.

The GX Promotion Subcommittee (established in April 2022) of the Future Society Initiative (currently UTokyo Compass Initiative), which oversees the University's GX activities, set the following reduction targets for Scopes 1, 2, and 3 in the UTokyo Climate Action (CA), formulated in October 2022 to achieve net zero greenhouse gas emissions. (The baseline for the reduction target is FY2013.)

	By FY2030	By FY2040	By FY2050
Scope1,2	50%	75%	100%
Scope3	25%	50%	75%
Total	34%	67%	100%

Annual reviews of the CA will be conducted to check progress, report results, and update plans as necessary to meet the targets. Following the FY2023 edition, in November 2024, the UTokyo Climate Action 2024 (CA2024) was published as the third edition in the series.

For CA2024, in response to the need identified in CA2023 for additional action to achieve the targets, we started considering specific measures, including reorganization schemes and funding plans. (The chart below shows the results of emissions calculations up to FY2023, the latest data available at the time of publication.)

Regarding Scopes 1 and 2, which are related to energy use associated with university activities, emissions in FY2023 were reduced by 19.9% from the base year of FY2013, and by 1.3% from the previous year. These results can be attributed to the reduction effect of continuing energy-saving activities, such as the Todai Sustainable Campus Project (TSCP), and the decrease in power use due to the reduction of operating times of energy-intensive equipment, such as advanced computers. However, the reduction pace is still not at the rate needed to achieve the target reduction level for 2030. In light of this situation, the Building Carbon Management (BCM) project has been planned for launch in FY2025 for major buildings, which account for about 70% of the energy consumption in the Hongo Area.

In FY2025, Center for Strategic Promotion of Green Transformation (hereinafter, "GX Center") was established, replacing the existing GX

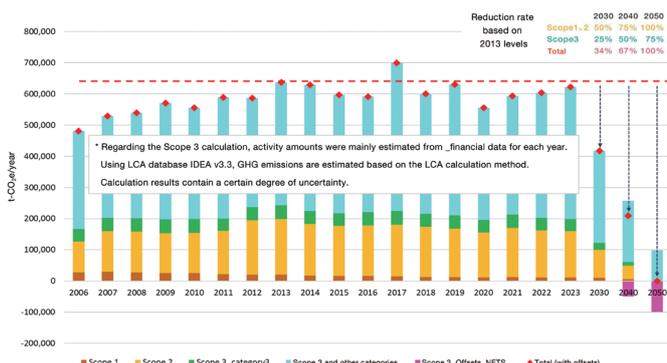


Figure 1: UTokyo Scopes 1,2,3 GHG calculation results with projections to the future



Promotion Subcommittee. GX Center aims to collaborate with various partners and stakeholders within and outside the university to promote specific measures towards realizing carbon neutrality not just locally, but at regional and international levels as well.

Within this Center, a Campus Management Office was established to promote the BCM project, strengthening the review system, and securing funding through sustainability bonds.

For this project, sensors are installed on equipment that use electric power (especially air-conditioning systems) in each building. The operating status data is then collected and accumulated in the cloud for analysis and optimization using AI, with the aim of significantly reducing energy consumption.

In FY2023, Scope 3 emissions, which account for more than 70% of the total emissions, increased 4.8% from the previous year. The main reason for this is the increase in Category 6 (business trip) emissions by 33% and Category 1 (purchased goods) emissions by 3.3%, due to the relaxation of restrictions on business trips designed to prevent the spread of COVID-19. This follows the trend from FY2022. However, the increase in Category 1 emissions may have also been affected by inflation (a 2.9% increase in the FY2023 consumer price index), as it was calculated using financial accounting data. As described above, although calculations using financial accounting data have the advantage of being able to comprehensively grasp the activity level in the University, they tend to involve significant uncertainty and thus may not be appropriate for accurately measuring increases or decreases in emissions. For this reason, under the instruction of the UTokyo Climate Action Working Group - which consists of faculty members involved in LCA - since FY2023, we have been working on developing a new calculation of emissions using on other activity level data in the University. In CA2024, volume-based emissions calculations were used for some types of waste.

### Introducing the actions

<https://www.u-tokyo.ac.jp/ja/about/actions/gx/about.html>  
About GX at the University of Tokyo

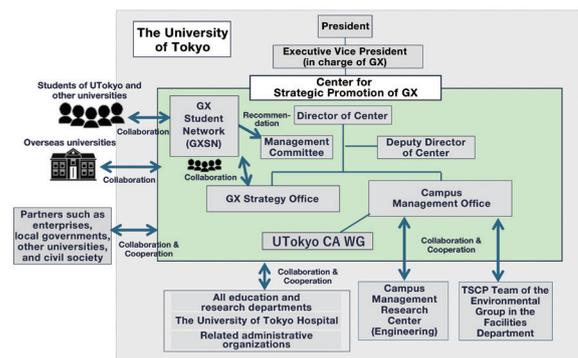


Figure 2: Organizational Chart of Center for Strategic Promotion of GX



## Achieving a Low-Carbon Society, Starting with the University of Tokyo

### 02 Sustainable Campus Initiatives

The University of Tokyo (UTokyo) established the Todai Sustainable Campus Project (TSCP) in April 2008 in order to provide a model for a sustainable society of the future as an educational and research institution. In July of the same year, the TSCP Office, an expert organization under the direct control of the President, was established. Since July 2022, it has continued its activities as the TSCP Team of the Environmental Group in the Facilities Department. The TSCP has a wide range of activities, but its top priority is to reduce CO<sub>2</sub> emissions.

When the TSCP was first established in 2008, it announced its target for reducing CO<sub>2</sub> emissions related to energy use. It aims to reduce CO<sub>2</sub> emissions by 50% by FY2030, compared to its base year of FY2006. This target is known as TSCP 2030. Thus far, the TSCP 2012, set as a short-term target, and the TSCP 2017, set as a medium-term target, have both been achieved with the cooperation of various departments. We set the TSCP 2023 in 2018 (18% reduction by FY2023 compared with FY2017 figures) and, as a result of continued efforts, this target was achieved as well.

Furthermore, in October 2022, we developed the UTokyo Climate Action as an action plan to achieve net-zero greenhouse gas emissions by 2050. This plan aims to reduce Scope 1 and Scope 2 CO<sub>2</sub> emissions by 50% by FY2030, compared to the base year of FY2013 (Figure 1). In the third report, UTokyo Climate Action 2024, we presented our progress based on the latest data and formulated policies and strategies aimed at achieving these targets.

The trend in CO<sub>2</sub> emissions related to energy use, compared to base year FY2006, is shown in Figure 2 as an index (excluding advanced experimental facilities). On a scale of 100 for FY2006 emissions, FY2023 emissions were at 75.3 in terms of area and 59.5 in terms of ordinary income. Although the floor area of the University as a whole -

along with the level of activity - has increased, thanks to the efforts of TSCP and the cooperation of university members, we have been able to mitigate the increase in CO<sub>2</sub> emissions even with the increase in the activity levels.

Concrete efforts so far have focused on energy-saving equipment upgrades, especially improving the efficiency of large air-conditioning and heating facilities and individual decentralized air conditioning units. We are currently undertaking a multi-year project to convert more than 100,000 Hf lights on campus to LEDs. As a result, LEDs are currently used in approximately 93% of all lighting at the University. Furthermore, as part of our energy conservation awareness activities, we have promoted the visualization of electric power, distributed energy conservation awareness stickers, and the formulated energy conservation guidelines for laboratory facilities. We are striving to foster energy conservation awareness among university members, including students, faculty, and staff. In addition to carrying out thorough energy-saving measures for 2030, we are also working on introducing energy-generating facilities to our campuses. In FY2023 and FY2024, we installed solar power generation systems on the rooftop of buildings in Hongo, Komaba I, Komaba II, Shirokanedai, Kashiwa, and Kashiwa II Campuses.

The university has slightly under 40,000 members, making it the same size as a city. If we are able to reduce the University's CO<sub>2</sub> emissions, then this step toward decarbonization will provide a path whereby a low-carbon society can be realized, contributing toward the achievement of many SDGs. The major mission of the University is to conduct educational and research activities. Although it is difficult to maximize these activities while also reducing CO<sub>2</sub> emissions, we believe it is our mission to tackle this challenge and thus are proceeding with this project.



Figure 1: Change in CO<sub>2</sub> emissions from energy use and future targets for the university as a whole

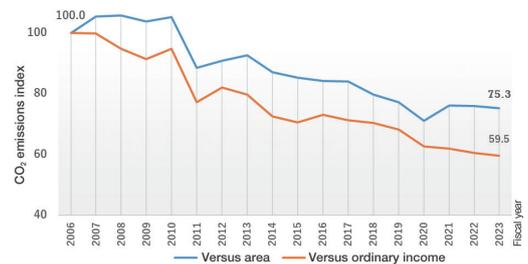


Figure 2: Change in CO<sub>2</sub> emissions from university-wide energy use per unit area and per ordinary income (excluding advanced experimental facilities)



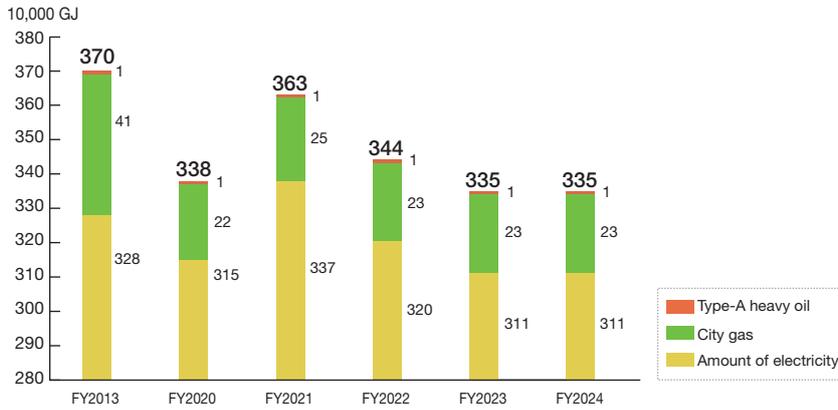
Figure 3: Energy saving and energy creation measures  
Left: Switching Hf lights to LED lights, Right: Installation of a solar power generation system



## 01 Amount of Energy and Water Used

At the University of Tokyo, since 2008, we have continuously carried out both physical improvements - including improving the efficiency of air-conditioning systems and increasing the use of LED lighting - as well as non-physical improvements through the Todai Sustainable Campus Project (TSCP). From FY2025, we will step up our ongoing efforts under the direction of Center for Strategic Promotion of Green Transformation. In keeping with the responsibilities of an educational and research institution, we will continue striving to meet the challenge of reducing CO<sub>2</sub> emissions to achieve our UTokyo Climate Action targets.

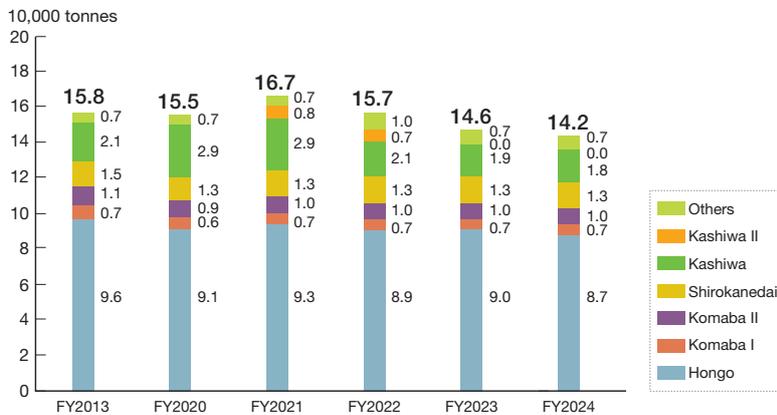
### Primary energy consumption



The energy consumed by the University of Tokyo as a whole in FY2024, including electricity and gas, amounts to approximately 3.37 million GJ of primary energy.

Conversion factor  
 Electric power: 9.76 GJ/MWh  
 City gas: 45 GJ/1,000 m<sup>3</sup>  
 Oil (Type-A heavy oil): 39.1 GJ/kl

### CO<sub>2</sub> emissions (energy sources)



The University of Tokyo emitted approximately 142,000 tonnes of CO<sub>2</sub> in FY2024.

CO<sub>2</sub> emission factor  
 Electricity: bottom of graph  
 City gas: 2.31 kg-CO<sub>2</sub>/m<sup>3</sup>  
 Oil (Type-A heavy oil): 2.71 kg-CO<sub>2</sub>/l

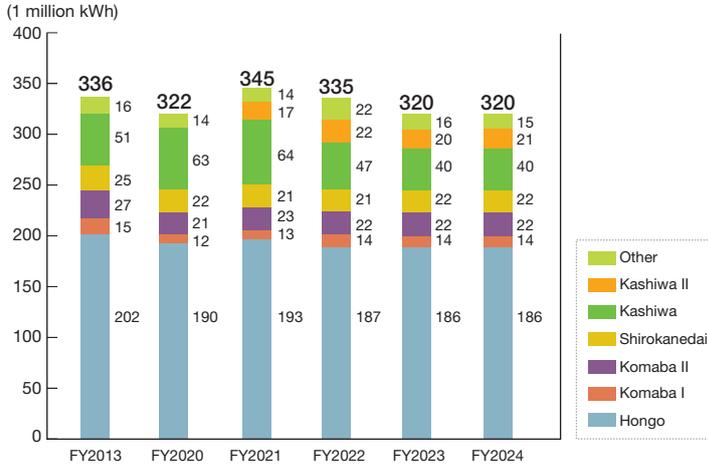
Electricity CO<sub>2</sub> emission factor: 0.406, 0.441, 0.441, 0.441, 0.451, 0.431 kg-CO<sub>2</sub>/kWh

# Chapter 5

## Environmental Safety Management Initiatives

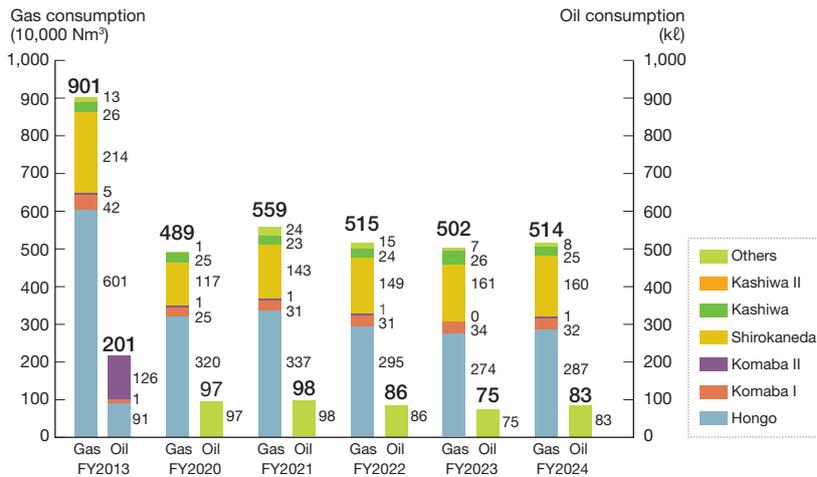


### Electric power consumption



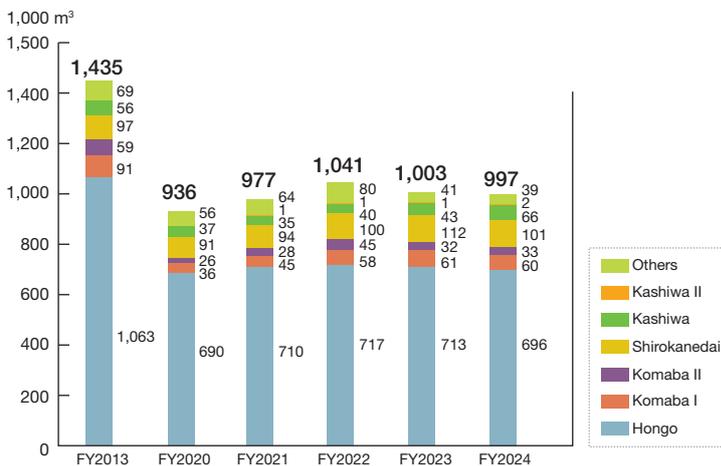
Electricity consumption in FY2024 was approximately 320 million kWh.

### Gas and oil consumption



Gas consumption in FY2024 was approximately 5.14 million Nm³, and oil consumption was approximately 82 kL.

### Water resource consumption



In FY2024, we used approximately 997,000 m³ of water resources (tap water + well water).

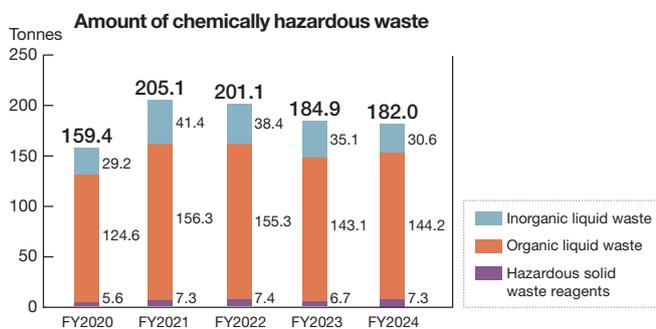
## 02

## Waste Management

The Environmental Science Center centrally collects and manages chemically hazardous waste generated through research and educational activities at the University of Tokyo. For each type of chemically hazardous waste, the Environmental Science Center selects a waste disposal company that can properly treat the waste and entrusts them with the waste disposal. Furthermore, regular inspections are conducted to confirm that the waste treatment is being carried out properly.

As for infectious waste that does not contain hazardous chemical substances, each department within the University of Tokyo is responsible for selecting and contracting with outside contractors who can conduct proper disposal. Concerning domestic waste, we are making efforts to reduce the amount and to promote recycling by thorough sorting.

## Experimental waste

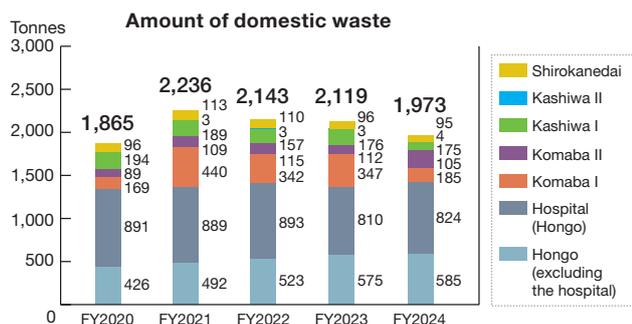


\*Because of rounding up/down, the sum of the numbers for each item may not match the total value on the graph.

Although the total amount of waste discharged from university laboratories is not large, the contents of waste vary greatly, and the waste contains a wide variety of hazardous substances. For this reason, the University of Tokyo requires those who discard experimental waste containing chemically hazardous substances to take the environmental safety training course to obtain the qualification to do it. Those who discharge waste are required to properly classify chemically hazardous waste according to the rules, accurately describe their composition, and bring them to the Environmental Science Center. After inspection and analysis at the Environmental Science Center, the waste is entrusted to the off-campus waste disposal facilities, as described above.

In FY2020, the amount of experimental waste decreased owing to restrictions on activities throughout the University that accompanied the spread of COVID-19. However, in FY2021, the amount returned to pre-COVID-19 levels. In FY2024, the figure was almost the same as the previous year (slight decrease of about 2%).

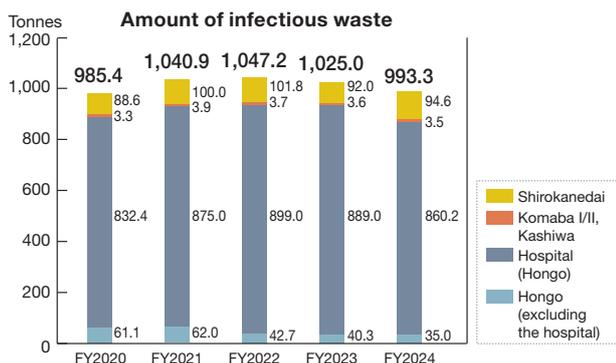
## Domestic waste



Sorting rules for domestic waste differ slightly from campus to campus, but the basic policy is to recycle what can be recycled. Only items that cannot be recycled are disposed of as combustible or non-combustible waste. Paper waste, empty cans, empty bottles, PET bottles, etc. are sorted. Paper waste is further subdivided into copier paper, magazines, miscellaneous paper, cardboard, etc.

With the exception of the large drop caused by the COVID-19 issue in FY2020, the amount of domestic waste generated over the past five years has shown a gradual downward trend.

## Infectious waste



\*Due to an error in the result for the FY2020 total, the figures have been corrected in the reports for FY2022 and later.

It is essential that infectious waste is properly sorted at the site of generation under strict management, and the University of Tokyo is also fully committed to its proper handling. Furthermore, the University of Tokyo has established its own rules for disposing of syringes and needles used in non-medical experiments as infectious waste from the standpoint of public acceptance.

In FY2024, the amount of infectious waste was almost the same as in the previous year (slight increase of approximately 3%).



## 03

### Status of Compliance with Environmental Laws and Regulations

In FY2024, the University of Tokyo received no guidance, recommendations, orders, or dispositions from regulatory authorities for violations of environmental laws and regulations (laws and ordinances on pollution control, such as the Water Pollution Control Law, Sewerage Law, and Air Pollution Control Law; laws and ordinances on resource circulation and proper waste disposal; and laws and ordinances related to energy conservation, etc.).

In order to prevent accidental discharge of hazardous substances used in experiments, we will continue to take measures such as holding safety education sessions, conducting patrols, and servicing equipment.

## 04

### About the PRTR System

The University of Tokyo uses the University of Tokyo Chemical Information Management System (UTCIMS) to calculate the amount of chemical substances released into the environment at all laboratories for every fiscal year. The results are submitted as a PRTR system notification (Act on the Assessment of Releases of Specified Chemical Substances in the Environment and the Promotion of Management Improvement: Chemical Management Act).

The PRTR system applies to entities that handle one tonne or more of Class 1 designated chemical substances and 0.5 tonne or more of specified Class 1 designated chemical substances annually. In FY2024, the PRTR law applied to two campuses: the Hongo Campus and the Komaba Campus. On Hongo Campus, a total of three substances, chloroform, methylene chloride and hexane, were subject to the PRTR system, while on Komaba Campus, one substance, chloroform, was subject to the system. As usual, proper notification was given.

**Amounts of chemical substances released and transferred**

Name of campus	Name of substance	Amount handled	Amount discharged		
			Ambient air	Sewerage	Sites other than offices
Hongo	Chloroform (kg)	4,800	50	0.0	4,300
	Methylene chloride (kg)	6,600	8	0.0	6,000
	Hexane (kg)	11,000	18	0.0	10,000
Komaba I	Chloroform (kg)	2,700	7.5	0.0	2,500

\*Each calculation result is displayed to two significant digits.

\*For substances other than dioxins, the figures are rounded to the nearest two decimal places in accordance with the regulations of the Ministry of Health, Labour and Welfare when the amount discharged or transferred is less than 1 kg.

## 05

### PCB

At the University of Tokyo, in accordance with the *Act on Special Measures concerning Promotion of Proper Treatment of PCB Wastes* and other relevant laws and regulations, we have detoxified approximately 65 tonnes of fluorescent lamp ballasts containing a high concentration of PCB and approximately 96 tonnes of waste with a low concentration of PCB as of FY2023.

## 06

## Asbestos

Since the announcement in late June 2005 of industrial accidents at workplaces where asbestos was used, several cases have been taken up, and asbestos has become a major social problem that affects not only workers but also their families and the residents around the factories. As the latency period for the health effects caused by asbestos is long (more than 20 years), appropriate measures must be taken over a long period of time. We are also working to grasp the current situation of asbestos use and thoroughly implement safety measures.

In March 2006, after repeated discussion concerning the handling of asbestos in a WG formed of knowledgeable people within the University, we established the University of Tokyo Asbestos Countermeasures Guidelines (hereinafter referred to as “the Guidelines”) to prevent health problems caused by asbestos in students, faculty, and staff. The Guidelines provide for appropriate maintenance and management not only of sprayed asbestos, but also of asbestos-containing laboratory equipment, to prevent health problems.

Currently, in accordance with the Guidelines, asbestos labels are attached to rooms and laboratory equipment where asbestos has been confirmed present to make it known that asbestos is being used. At the same time, exposure prevention measures are implemented according to the status of asbestos management, and alerts are issued to prevent health problems. We have also established an Asbestos Consultation Desk within the University to provide health consultations to those who have health concerns involving asbestos, and to provide medical examinations to those who wish to receive them (including retirees).

Concerning on-campus rooms with sprayed asbestos, in addition to confirming that these facilities are sealed off to prevent asbestos from being scattered and systematically dismantling the asbestos to reduce the on-campus amount of asbestos, we are also promoting the appropriate maintenance and control of asbestos-containing laboratory equipment in research laboratories, etc., as well as educating the University community about the need to replace asbestos-containing materials with non-asbestos materials and to upgrade equipment.



Sprayed asbestos  
(in ceiling)



Asbestos has been used  
(laboratory  
equipment, etc.)



Not clear whether or not  
asbestos has been used  
(laboratory  
equipment, etc.)



Sprayed asbestos  
(contained)



Sprayed asbestos  
(stable)

## 07

## Contributions to the SDGs

In April 2024, the University of Tokyo established UTokyo Compass Promotion Council chaired by the President. One of the purposes of the Council is to promote effective collaboration and to contribute to the future of humanity and the planet, based on the University’s mission of serving the global public as outlined in the University of Tokyo Charter. To imbue such collaborative activities, we are striving to optimize the SDGs (Sustainable Development Goals) that are aligned with the University’s mission.

The University of Tokyo has constructed a system to create synergy and social value between the University’s diverse activities by visualizing and publicizing such activities that contribute to 17 SDGs as registered “SDGs Projects”. As of June 1, 2025, there were 197 registered projects.

