

Chiba University Environment Report 2015 (Abridged Edition)

(Title of the original report in Japanese: 千葉大学環境報告書 2015)

*This report was translated from Japanese into English by the members of Chiba University Students Committee for Environment Management System (Environment Committee). This is an abridged edition, so not all the information in the original report is accessible in this version. If you refer to the document in Japanese at the website of Chiba University (<http://www.chiba-u.ac.jp/environment/>), you can access to the charts, tables and some pictures which are not in this report. These will help you to know our efforts more. Thank you for reading this report.

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Trans. Koichi Sado / Proofread by Daniel Jenks)

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(Translated directly from the original report in Japanese)

We highlighted the contents which we translated into English.

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Environmental and Energy Policy of Chiba University

Since the Industrial Revolution, we, humankind, have developed our activities with abundant energy resources. As a result, we are now faced with various environmental problems, such as global warming, pollution by chemical substances and loss of biodiversity of living things. The environment, which is the ground of our subsistence, is just threatened by environmental loads produced by human activities. By the nuclear power plant accident in Fukushima, there is an urgent need to ensure a safe and sustainable energy sources. We should mobilize our wisdom, and should think what to do against this situation. Chiba University has a duty to contribute to forming,

accumulating and practicing this wisdom as a comprehensive institution of education and research in a broad field of natural and social sciences. To this end we will take the following action.

1. Accumulating the wisdom of natural and social sciences, we advance practice of environmental education and research, taking advantage of the characteristic as a university in cooperation with the attached schools.
2. We promote energy and resource saving measures, cycling use of resources and buying goods considering the environment, and protect vegetation in our campus. We also manage the safety use of chemical substances to prevent pollution. Though these we realize a campus with a small environmental load and lush. Above all we understand and comply with legal and other requirements about the environment and the energy which Chiba University agrees with.
3. The environmental and energy management system is constructed and operated by the students as the main constituents. We also encourage voluntary activities by the students, aiming at a campus where a variety of environmental programs are put into practice.
4. We practice the environmental and energy management system opens to the local community with reflection of their opinions.
5. We will keep top level of energy efficiency and improve it continuously. And, we supports design of products and drafts of service and facility which lead to improvement in energy performance.

Standing on this policy, we establish the targets, take actions to realize them, and think better of the environmental management system, auditing the actions. Then, we continually improve the system.

This environmental policy is documented and communicated to the people concerned, including the teachers, officials and students of Chiba University and relative businesses who are usually stationed there, and released to the public in a document and on website.

April 1, 2004 Enactment
April 1, 2008 Second revision
July 24, 2013 Third revision
Takeshi Tokuhisa

(Page 6 in the original report in Japanese

Trans. Jiang Ji Bo / Proofread by Koichi Sado and Daniel Jenks)

TOPICS: It Has Been 10 Years since Chiba University Got ISO14001 Certification

As of January 27, 2015 it had been 10 years since Chiba University got ISO14001 certification, the international standard for environmental management system. With student-led efforts over this 10 year period, in 2013 Chiba University got ISO50001 certification, the first university in Japan to meet this international standard for energy management.

There are three areas of student-led environmental and energy management systems (EMS EnMS).

1. Result of Energy and Resource Saving

We compared the amount of energy consumption in 2013, when Chiba University got ISO14001 certification, with that in 2004. (Excluding University Hospital) Although the area of space where energy is used, and the number of people who study or work in the university increased, the total amount of energy decreased by approximately 8%. This means the amount of energy used per 1 square meter shrank by about 13 percent.



In this chart,
「総エネルギー投入量」=total amount of energy which was used
The red line shows the amount of energy.
The blue line stands for the areas where energy is used.

2. External Evaluation of Chiba University

In 2014, the Ministry of Education's National University Corporation Evaluation Committee recognized Chiba University's ISO50001 acquisition process amongst the special efforts of national universities in Japan. The article says that Chiba University worked hard to introduce and promote EMS and EnMS, leading to the acquisition of ISO50001 earlier than any other national universities in Japan.

3. Business Education Effect on Students

In Chiba University, students of the Environment Committee, which was established in 2003, are involved in the establishment and operation of EMS and EnMS in the campuses. According to a survey, at least 80% of the respondents who worked as the committee members found that the activities of the committee were helpful in their work.

(Page 7 in the original report in Japanese [quoted from Chiba University's website http://www.chiba-u.ac.jp/general/outline/charter/pdf/charter_e.pdf on December 22, 2015])

Chiba University Charter

always aim higher

This charter is guided by the university motto “always aim higher.”
Chiba University undertakes teaching and research to maintain, disseminate and advance knowledge. In its teaching Chiba University will seek to meet the interests of students and the needs of the community, and to foster generally the exploration and discovery of ideas and knowledge.

The Objectives of Chiba University

Based on the above principle, the university community shall firmly maintain the spirit of freedom and independence. We will actively seek ways of organizing and managing ourselves that best support our teaching and research. We will be open and alert to new opportunities, including collaboration and cooperation with other institutions, to further the role we play. We will participate actively in our local community and play our part as critic and conscience of society and will further the cause for peace and harmonious coexistence with nature.

1. Ensure that students are supported in their studies, in a manner which maximizes their opportunity to reach their potential, through the provision of appropriate services and support mechanisms, including student mental and physical health, and welfare.
2. Provide an academically rigorous education that meets international standards to ensure that our qualifications, our staff and our students continue to receive recognition from comparable institutions nationally and internationally.
3. Ensure that the University is an active and respected member of the international academic community, that opportunities for overseas students to study and to undertake research are increased, and that our students are exposed to the benefits of an international perspective in their studies and lives.
4. Maintain and develop research and creative activities of international standing in terms of both quality and productivity by promoting selected areas in which excellence can be achieved while also protecting the rights and obligations of all academic staff to undertake research. Within this environment the university will be flexibly managed to resonate with and adapt to the changing times.

Enacted on the 11th of October, 2005

(Page 11 in the original report in Japanese
Trans. Koichi Sado / Proofread by Miles Prowse)

TOPICS: Satellite Campus Where There Was A Elementary School

Chiba University established the Centre for Revitalization of Community in order to make the university a base for the creation of communities, after the university being adopted as part of MEXT's Center of Community (COC) framework in universities.

We've been working hard on research of regional studies by collaborating with residents, teaching staff and students.

▷▷▷What Is COC?

“Universities that serve as the base for intellectual creative activities should be the Center of Community (COC). Using various resources that higher education institutes possess, it is necessary to link the invigoration of communities with investment in improving education and research functional capabilities by making efforts to resolve various issues directly facing communities. This will lead to further support for these kinds of activities.”

This explanation is taken from MEXT's website:
<http://www.mext.go.jp/english/lawandplan/1355354.htm> on January 5, 2016

▷▷▷Establishing Satellite Campus by Reforming the Building That Was a School

Chiba University borrowed the building of Takahama Daini Elementary School in order to make progress in the revitalization of the community and began taking advantage of the building as a satellite campus in October, 2014. We gave lectures on how to use the old school and considered also how the new campus can become valued by local residents, along with students of Chiba University. After opening the new campus, many residents have been participating in programs conducted by teaching staff and students.



2014年10月4日に行われた開校式の様子

Photo: Chiba University's satellite campus

Introducing of Underground Water Purification System

Chiba University began operating its system to purify the quality of the underground water in Nishichiba Campus by using water from the prefectural water board and well-water, which aims to make the campus safer according to Campus Master Plan 2012. In this system, polychlorinated biphenyls which have been put in temporary storage can be processed.

▷▷▷Proper Processing of PCB (Polychlorinated Biphenyls)Waste

Chiba University started to manufacture electrical devices such as transformers and condensers in 1954. However, in 1972, the government ordered manufacturers in Japan to stop production of these devices due to Yushō disease (mass poisoning by PCB), which occurred in 1968. In 1975, manufacturing and imports were banned. Now, the Act on Special Measures concerning processing of PCB waste requires proper storage and processing.

Chiba University keeps the PCB waste in the Former Energy Centre in the Nishichiba campus. The waste from 22 machines was processed by JESCO (Japan Environmental Storage and Safety Corporation) in March, 2015.

▷▷▷Purification System Works Even in an Emergency

Underground Water Purification System provides clean water by using well-water, which was found recently in Nishichiba campus, and prefectural water.

[Advantages of Using Underground Water Purification System]

- not only having a low impact on the environment but also providing clean water
- even in an emergency, the water can be taken advantage of
- reduces the cost to deliver clean water to people in Chiba University

(Compared with the previous year (2014), the cost was reduced by 4,512,000 yen (37,300 US dollars)^[1]).



Photo: underground water purification system

^[1] The calculation is based on the rate 121 yen = 1 USD.

(Page 32 in the original report in Japanese

Trans. Minami Ishihara / Proofread by Koichi Sado and Daniel Jenks)

Reduction of the Waste

In Chiba University, we promote 3Rs (reducing, reusing, and recycling) of garbage and try to reduce the amount of the waste.

▷▷▷Enforcement of Garbage Separation

In Chiba University, we generally separate garbage into four groups; ①combustibles, ② recyclable garbage, ③ non-combustibles and bulky garbage and ④ home appliances which can be recycled. After that, we prepared the boxes to separate the garbage in the campuses, especially combustibles, cans, plastic bottles, bottles, and used paper which is frequently thrown away by students and staff in university.



Photo: enforcement of garbage separation

▷▷▷Plastic Bags Are No Longer Free, and Revenue Is Used as “Rejibu Fund”.

Chiba University Consumer’s Cooperative Society (co-op) started the system that consumers have to pay for plastic bags (5 yen per bag), according to some students’

advice. In 2007, all co-op stores began operating this system. In 2014, only 0.6% of consumers took advantage of plastic bags. Surprisingly, the number of plastic bags used decreased by more than a million. The money saved from the reduced cost of the plastic bags can be used in so many ways, such as selling environmentally-friendly products at a discounted price, and holding environmental events.



Photo: Consumers have to pay for plastic bags (5 yen per bag).

▷▷▷Promotion of Saving Energy and Waste Reduction in Winter Eco Event

Environment ISO Student Committee held ‘winter eco event’ using ‘Rejibu funds’ so that more people were aware of the environmental activities. In Nishichiba campus, we distributed disposable pocket warmers and soups for free and carried out quiz games about the environment. Before we distribute soups, we collect money from the guests as deposits for the containers. After the containers were returned, we returned the deposit to the guests. We intended that people in Chiba University have awareness of recycling of packages. In Matsudo, Inohana campus, we also distributed disposable pocket warmers and emphasized the importance of the activities to save energy.



Photos: ‘Winter Eco Event’ using ‘Rejibu funds’

▷▷▷Reuse Furniture and Home Appliances Given from Graduates to Freshmen

Chiba University Cooperative Society Student Committee (JCK) carried out a recycle project to support new students. JCK collects furniture and home appliances from

students who graduate from Chiba University and sells them to freshmen at a cheap price and deliver for free. JCK collects ‘re-repack’ (reusable food packaging) that can be used many times. Regularly, the committee members go on a campaign to promote collection of ‘re-repack’.



Photo: JCK’s recycle project for new students

(Pages 41-42 in the original report in Japanese

Trans. Ayame Shimazaki / Proofread by Koichi Sado and Daniel Jenks)

TOPICS: ‘My Bottle’ Model Project

The Environment ISO Student Committee, a Non-Profit Organization (NPO), was entrusted by the national network in Japan which encourages the 3Rs (reducing, reusing, recycling) packages and conducted experiments in conjunction with the co-op of Chiba University to reduce the amount of waste by using reusable bottles from October to December in 2014.

▷▷▷What’s ‘My Bottle Project’?

The purpose of this project is to promote the use of reusable bottles for drinks, to reduce recyclable waste, especially plastic bottles, and to raise awareness among the students and the staff regarding waste reduction. The project is supported by the Japan Fund for Global Environment provided by the Environmental Restoration and Conservation Agency (an independent administrative agency), then the student committee and Networks all over Japan, which encourages people to reduce, reuse and recycle packaging.

We sold reusable bottles at a bargain price and prepared a new type of vending machine of the reusable bottles in the cooperative of Chiba University. We also

created a reward system in ten restaurants around the Nishichiba campus; Customers who brought reusable bottles with special seals can get privileges such as additional toppings for free. In addition, we conducted a survey for the model project participants three times to research the changes in the awareness of eco-friendly bottles and the environment.



Photos: special seals and 'My Bottle'

▷▷▷Sale of the Reusable Bottles

On October 9th and 10th in 2014, we sold 800 reusable bottles for 100 yen per bottle as a special price. The special seals, which give people privileges in some restaurants around the university's campus, were attached to the bottles. We also distributed the seals for people who brought their own reusable bottles.

▷▷▷Vending Machine for Only 'My Bottle'

From October 9th to December 8th in 2014, we put a vending machine for reusable bottles together with hot chocolate, tea and consomme-soup for 50 yen per glass(180ml per drink) in the Life Centre in the Nishichiba campus. In these two months, we sold 1,274 bottles in total, which means a saving of 458 500ml plastic bottles. Additionally, we created a bottle cap exhibit in Life Centre to promote 'My Bottle Project'.



Photos: a vending machine for only 'My Bottle' and a bottle cap exhibit

▷▷▷Rewards for Showing My Bottle with Exclusive Seal

To promote the ‘My Bottle Project’, we established a system so that users of the reusable bottles can receive various services in 10 stores near Chiba University by showing the special stickers of the ‘My Bottle Project’. According to a subsequent survey, at first a lot of people accepted this service but the number of people using the service later decreased.

▷▷▷Result of questionnaire on ‘My Bottle Project’

We conducted questionnaires three times for participants of the ‘My Bottle Project’ to understand the result of the project.

[The Number of the Respondents]

The first time: October 9th to 10th (at the beginning of the event)... 825 people

The second time: November 11th to 16th (during the project)... 319 people

The third time: December 18th to 24th (after the project)... 224 people

As the chart on the right shows, 30% of participants who replied to our questions between November 11th and 16th said that they didn’t purchase plastic bottles and cans at all. 92% of interviewees told us that the number of plastic bottles and cans which they bought had decreased. This figure includes those who answered “decreased a little” and “decreased greatly”.

[Participant’s Comment]

This project is awesome, because consumers can save money by using their reusable bottles and the activities are good for the environment. The number of plastic bottles and cans that I purchased declined.

▷▷▷Those Who Don’t Buy Plastic Bottles and Cans at All Increased.

We asked how many plastic bottles and cans students and staff members of Chiba University buy in a week. The percentage of people who don’t buy them at all increased, which is a positive result of this project.

▷▷▷General Comment

According to the survey, more than 85 % of people said that if facilities for refilling water bottles were freely available in Chiba University, they would want to use them. The reason why people buy ‘My Bottle’ is that it is possible to get one cheaply. Regarding the benefits of the system, 81 % of people said that it is possible to cut down the cost of drinks. In addition 89 % of people said that they would make use of the reward system for showing ‘My Bottle’ seals at restaurants around Chiba University. According to these results, to promote ‘My Bottles’ it is necessary to set up free water refill facilities, to consider the price of the bottles, and to advertise the coolness of ‘My Bottle’.

(Page 49 in the original report in Japanese

Trans. Minami Ishihara / Proofread by Koichi Sado, Daniel Jenks, and Miles Prowse)

Volunteer Activities at Disaster Areas through Planting Trees

Volunteers of Chiba University Faculty of Horticulture, along with associate professor Noriko Akita of the Graduate School of Horticulture, visited disaster areas over a period of about 40 times since July 2011. They maintained community gardens, planted trees at the mall and made incense bags and soaps with local people taking advantage of knowledge and experience as the only national university’s Faculty of Horticulture in Japan. They want to deliver motivation and encouragement to the affected areas through plants. In 2014, they also conducted various activities.

[Activities in 2014]

▷▷▷Activities in Ishinomaki City, Miyagi Prefecture

The Environment Committee (in Matsudo and Kashiwanoha campuses) has been participating in volunteer activities in Ishinomaki (Miyagi Prefecture) four times a year since July 2011.

June: We, the committee’s members joined the maintenance of the community gardens, re-potting plants at Ishinomaki-tatemachi shopping mall, and handed out

message cards which were decorated by pressed flowers, to people who run independent shops in the shopping mall.

October: We again maintained the community gardens, re-potting plants in Ishinomaki-tatemachi shopping mall. Additionally, we helped prepare establishing a new nature school in the old building which used to be Kuwahama elementary school, with other organizations.

January: We made incense bags and soaps using herbs with local people reinforcing ties with the community members. Also the "Tohoku Orchid Exhibition & Rose and Garden Festival 2015" was held in Sendai, Miyagi Prefecture, where the members helped with the disaster area's booths.

March: We planted flowers around the monument of Okawa Elementary School in cooperation with local landscapers. We created a flower bed to show our great gratitude to the accommodation house where we stayed during the visit.



Photos: activities in Ishinomaki City, Miyagi Prefecture

▷▷▷Planting Trees for Natural Disaster Reduction in Asahi City, Chiba Prefecture

In March 2015, in Asahi City the "Festival for Planting 3,000 Trees for the Prevention of Natural Disaster in the Coastal Area in Asahi City" (sponsored by Asahi City) was held. Here, 25 horticulture students joined planting as the leaders of 600 volunteers. We planted both hardwoods and softwoods along the coast, across a total area of 1,000 square meters. In the future, we are planning to cultivate and maintain the forest with local people, and to hold events in order to raise people's awareness of disaster prevention.



Photo: Festival for Planting 3,000 Trees for the Prevention of Natural Disaster in the Coastal Area in Asahi City

▷▷▷Activities in Rikuzentakata City, Kamaishi City, Otsuchi Town (Iwate Prefecture)

We participated in the establishment and the maintenance of the community gardens together with local residents and high school students in Rikuzentakata, Kamaishi, and Otsuchi, which are now under reconstruction.

▷▷▷Our Committee Won Awards for the Social Activities

Chiba University (volunteers of horticulture students) was awarded 'Regional Kagayaki Award', which was given to groups which are working hard for solving regional problems, by Co-op Mirai (a consumer cooperative).

Associate professor Akita of the Graduate School of Horticulture, was awarded a special prize of '8th Facility Management Award' by Japan Facility Management Association(JFMA) as a provider of the service of Noriku Cafe in Rikuzen-takata City.

Co-op "Cope future" honor organizations that are committed to excellent activities and business for the area of problem solving. Chiba University Faculty of Horticulture student volunteer was awarded in the "crime and disaster prevention and disaster" field of "regional shine Award".

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Trans. Koichi Sado / Proofread by Daniel Jenks)

For Globalization

There are a lot of international students in Chiba University.

In 2014, we made materials related to the environmental activities in Chiba University and gave lectures on campus so that foreign students can understand our environmental efforts.

▷▷▷ Holding Events and Distributing Documents to International Students

We translated the following documents into English for international students to raise awareness of our environmental activities.

- *brochures based on the lectures given by the committee members at the beginning of each semester

- *manuals which show how to separate the different types of garbage in the school festival

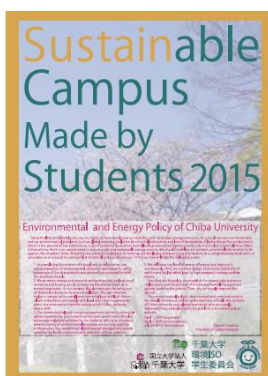
- *a leaflet about the committee's 'Winter Eco Event' in December

Additionally, we hold an event to make candles from used oil, which is usually disposed of, in order to exchange with students from overseas.

We are planning to make documents in languages other than Japanese and English and promote Chiba University's environmental efforts.

▷▷▷ Giving Lectures to International Students

We ask new international students who come from other countries to cooperate with us regarding environmental activities in Chiba University's campuses every April and September. New students can choose the language of the lecture; Japanese or English. During the explanations, we demonstrate how to separate the garbage. After the lectures, our pamphlets about campus environmental issues (English Version) are given to them.



Photos: a pamphlet [English Version] (left)

We gave lectures to international students. (right)

▷▷▷ **Voice of International Students**

[Yunju (in Japanese pronunciation), sophomore at the faculty of science]

I came from Korea. One of Chiba University's environmental measures is the preparation of trash boxes around the campus. The boxes are separated according to the kinds of garbage; combustibles, non-combustibles, cans, plastic bottles, and even used paper, which astonished me!



Photo: Yunju, a science student from Korea

(Pages 77-78 in the original report

Trans. Jiang Ji Bo, Ayame Shimazaki and Koichi Sado / Proofread by Koichi Sado, Daniel Jenks, Sarah Morikawa and Miles Prowse)

Glossary

No.	Terms	Meanings
1	ISO14001	International standard related to environmental management stipulated by ISO (International Organization for Standardization)
2	ISO50001	International standard related to energy management

		stipulated by ISO (International Organization for Standardization)
3	Environment Committee	A student organization comprised of students who had acquired the credits of 'Environmental Management System Practice I, II or students attending lectures with the intention to join.
4	EMS and EnMS	Environment Management System and Energy Management System. Chiba University takes advantage of these systems to achieve the goals of environmental activities and to manage the environment in the campuses. These systems include organizations, plans for the activities and processes to conduct them.
5	Super Global Universities	Universities which are included in a funding project by Ministry of Education, Culture, and Sports, Science and Technology (MEXT) to support education to an international standard of excellence by collaborating with universities outside Japan.
6	Agricultural Plant	In the Kashiwa-no-ha campus, this system which controls the conditions of the fields enables growing vegetables systematically.
7	Internal Audit	Assessing the condition of EMS and EnMS by members of Chiba University. There are main points of self-assessment; ①from perspectives of organization ②meeting members of each laboratory and check facilities directly ③frequently ④from an objective point of view.
8	Green Product Purchase	Choosing environmentally-friendly products which require lower costs for manufacturing when you purchase products.
9	Members	Operators of EMS and EnMS. The 'members' include staff of Chiba University, members of Chiba University Environment Committee, and students in master's courses who registered as operators of EMS and EnMS.
10	Academic Link Centre	Chiba University's facility to provide spaces for students' education and learning, which includes Chiba University Library, Institute of Management and Information Technologies, and Centre for General Education.
11	Future Cities	A system in which the government gives financial support and relaxes restrictions in order to establish advanced cities which deal with problems such as destruction of the environment and aging societies.
12	Subjects Related to the Environment	Areas of study which are related to the definition of the environment; air, water, land, natural resources,

		plants, animals, human beings, and organizations' activities which affect these things.
13	Liberal Arts	It is composed of English, the second foreign language, information literacy, sports and health, liberal arts offered in Chiba University. In order to master the common, basic skills and knowledge as the foundation of all learning and research in contemporary society that is internationalized and informational.
14	CUCRIS	Abbreviation of 'Chiba University Chemical Registration System'. Chiba University collects data on chemical substance usage by using networked bar code readers in the campuses.
15	Solar Decathlon	An international solar house competition evaluating houses from 10 perspectives including architecture, communication and energy efficiency.
16	Life Cycle Assessment	Technique to evaluate the degree of influence on the environment of production processes.
17	SIP(cross-ministerial strategic innovation promotion program)	A new program created to advance scientific technological innovation. The program is supported by the Council for Science, Technology and Innovation and is not limited with regard to ministry or field of science.
18	SATREPS	Research programs to solve global problems and to create a sustainable society, which are conducted by JST (Japan Science and Technology Agency) and JICA (Japan International Cooperation Agency.)
19	Environment Committees (in Attached Schools)	Committees established to lessen damage to the environment and to manage the campus environment in the elementary school and the junior high school attached to Chiba University (Official names are 'Environmental ISO Campus Beautification Committee' and 'Environmental ISO Committee'.)
20	Campus Master Plan	A framework to show people a vision of the future of the facilities and environment in Chiba University (in 20 years' time). The framework will help to determine how to manage and use the facilities in the future.
21	Re-repack (Reusable Containers)	Eco-friendly containers made from plastic manufactured by Yokota Tohoku Co., Ltd. The surfaces of the containers are lined with plastic film,

		which can be peeled off after we finish using the packages. This means that we can recycle used containers without washing them, which is good for the environment.
22	PRTR	Pollutant Release and Transfer Register. In Japan, the PRTR Act requires institutions to record and control the emission of specific chemical substances.
23	School Operators	Facility operators supporting students in Chiba University. For example, co-ops in all campuses, restaurant COLZA and stationery store YAMATOYA.
24	Kiso-kenshu	Lectures on EMS and EnMS, which are given to all students and staff in Chiba University at the beginning of a new semester.
25	Training Courses for Standardization	School activities by the Ministry of Economy, Trade and Industry, and the Japanese Standards Association to raise awareness of the role and importance of standards.
26	Community Gardens	These gardens are maintained by Chiba University students and teachers, and local residents around Nishi-chiba and Matsudo Campuses. The knowledge and the skills that they learn are used to support the areas damaged by the disaster on May 11, 2011.
27	Quasi-members	Students who are not a member of Chiba University Environment Committee but are closely connected. This includes students and part-time teachers on various campuses.
28	Executives	Chief members who lead the EMS in Chiba University, such as the President and the Director of General Affairs.
29	INPUT	The amount of consumables, such as gas, oil, water, chemicals, paper, packaging materials which are used in business activities.
30	OUTPUT	Substances produced because of businesses and other organizations, for example, carbon dioxide (CO ₂) and sulphur oxide (SOX).
31	Kankyo-kaikei	Accounting Report Related to EMS and EnMS.
32	NetFM	Facility management control systems including chemical substances. The management systems were created by Chiba University itself.

This is the end of the report (English Version). Thank you for reading.

Chiba University Students Committee for Environmental Management System (Chiba University Environment Committee)