

Environmental Report 2012

Abridged Edition

Kobe University



Message from the President

Students Interviewing the President on the University's Environment



President Fukuda answering questions

Three students who took part in the meeting 'To read the university's Environmental Report', Masaya Hinosaaka (3rd year, School of Business Administration), Atsushi Shirotono (3rd year, School of Business Administration) and Hirotaka Kondo (3rd year, Doctoral Program, Graduate School of Human Development and Environment), conducted the following interview with Kobe University President Hideki Fukuda

on July 5, 2012 to discuss the stance adopted by the University in regard to activities to conserve the campus environment.

Hinosaaka

Today we would like to inquire about your thoughts concerning the activities to preserve the campus environment undertaken by Kobe University, and ask some of the questions that we students have.

Kondo

In recent years the terms such as "environment" and "sustainable development" are becoming important keywords. In that light what kind of role do you think Kobe University should be fulfilling, as we aim to become one of the top-class institutions in the world? Also, can you please share us about the concrete goals that have been laid out for issues such as reduction of CO₂?

President Fukuda

As you are all aware, the Kobe University Charter on the Environment states that, as a world-class research and education institution, Kobe University pledges itself, through all of the university's activities, to the preservation of the global environment and to the creation of a sustainable society.

As environmental education is such a wide field, we believe that interdisciplinary lectures across multiple faculties are required in order to give our students a broader perspective.

In terms of environmental research, we are promoting collaborative research along with the development of individual field, and intend to share the results out to the world.

In regard to activities to conserve the campus environment, we set a variety of goals including promotion of 3R activities and a 15% reduction of CO₂, in the second Mid-Term Plan called "Basic Policy for Promotion of Environmental Management" in 2010. As all the plans and programs cannot be implemented at once, we set the policy that the students, faculty and administrative staff members come together and start from what they can do right away.

Shirotono

You referred to the university-wide approach from environmental education to environmental research. Could you give us some examples on the cross-faculty teaching and research collaboration?

President Fukuda

For environmental education, the Center for Environmental Management gives lectures titled "Introduction to Environmental Studies," intending to make students interested in environmental studies and let them notice how wide and deep the field covers. In addition, there is also the "ESD* Sub Course," run collaboratively by the Faculty of Human Development, Faculty of Letters, School of Business Administration, Faculty of Agriculture, Faculty of Intercultural Studies and Faculty of Engineering, which offers education for sustainable development with a focus on environmental issues.

As for environmental research, we are promoting integration

among researches including natural sciences, social sciences, life and medical, and humanities and human areas, at the Integrated Research Center of Kobe University established on Port Island. The Center conducts various researches related to the environment, including integrated bio-refinery research that seeks to create fuel, cosmetics and plastics from biomass resources, and the most advanced membrane technology research for the water purification using sledge separation membrane, and CO₂ scrubbing using a carbon dioxide separation membrane.

I hope students will also look into the research field outside of their own and find a new research theme through integration with another field.

* ESD: Education for Sustainable Development

Hinosaaka

From my perspective, to achieve the policy for the environmental management, it requires a variety of things including system, investment and personnel resources. I would like to learn what approach is being taken, and what you consider to be the most important at the moment.

President Fukuda

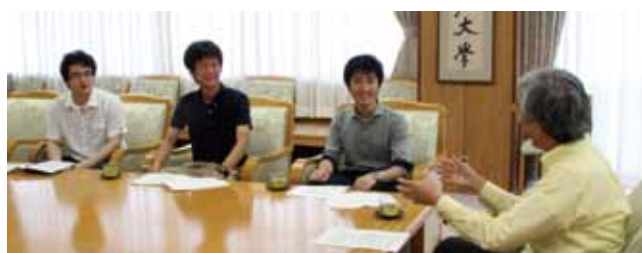
Let me introduce some of our efforts in 2011. For our 3R activities, in order to ensure that all recyclables are efficiently separated, the design of the indoor garbage bins has been unified. We don't want to waste the existing bins so the new ones will be placed accordingly when old ones come to the end of their useful lifespan.

In regard to reduction of CO₂, the renewal of facilities and equipments has definitely had a large effect. We will continue our efforts to acquire external funds such as grants, and will sequentially replace with energy saving equipments. During the summer last year under the highest demand to cut power consumption, some of our offices achieved 15% reduction in power consumption, and others reduced more than 20% in total consumption. Thus operational efforts are also already underway.

For environmental management, we conduct the Environmental Caravan every summer. Especially last year we offered the environmental improvement suggestions to each faculty and office, to link the caravan with the PDCA (Plan, Do, Check, Act) cycle.

In addition, we established the Center for Environmental Management in April 2012. The Center is responsible for building a framework and support system to ensure smooth implementation of safety and hygiene management, environmental management and research safety management within the University, and we will continue to explore new organizational structures and systems relating to the environmental management.

We are working hard on the facility and operational improvements as well as creation of a new organization. In the meantime, in order for these changes to be effective, the hard work of each and every members of the University is required. Therefore, I feel that, at the moment, the most important thing is to increase the awareness among our university members.



During the interview session
(from left to right: Kondo, Shirotono, Hinosaaka and President Fukuda)

Shirotono

Students are the largest constituent on campus. Thus I think that many efforts are to be left to the students, but in order to increase the awareness among students, are there any activities considered such as to further improve “visualization of energy use” or to restrict commuting to school by motorbike or scooter?

President Fukuda

I believe the enhancement of “visualization” is important in order to heighten the awareness. We have implemented electricity “visualization” at some of our facilities already, and some of the buildings with solar power generators are equipped with a monitor that displays the generated power. For other programs, we are looking for ways to make them understandable to students, including numerical displays.

In terms of commuting to University, utilizing public transportation can highly contribute in reducing CO₂. We should be looking into the possibility of limiting not only students’ use of motorbikes but also our administrative staff members’ use of cars to further reduce CO₂ emission.

Hinosaka

Are there any plans that University is considering to make students be aware and engaged in environmental programs? Is there anything that the University wants to ask your students?

President Fukuda

We are considering a unified structure that our faculties, administrative staff members and students can tackle together as a team. Since last year the Environmental Report Working Group has held a meeting ‘To read the university’s Environmental Report’, allowing students, faculty and administrative staff members to exchange opinions. Students also take part in the Working Group. We would like to further create the opportunities for students to participate, so that we can generate programs that reflect students’ opinions and support students’ own efforts.

If a university-wide student organization can be set up and operates in unison with the faculty and administrative staff members, that will definitely spur on the programs.

Do you students have any specific ideas for actions you are willing to take?

Hinosaka

After reading the Environmental Report, I felt some distance between how faculty members and students view. In order to increase students’ awareness, I think we might want to have an Environmental Report generated by students’ point of view. The technical terminology and expressions should be replaced by those that the students and general readers can understand, and if this was given out to the students, I think even those with a low awareness would start to think more about the environment. In the same way as we are now interviewing you, President Fukuda, I think it would be nice if we could also interview faculty and administrative staff members.

President Fukuda

For the students, the technical terminology might be hard to understand in some places. One solution might be to directly ask the researchers for an explanation. I would like to support the idea of creating an environmental report from students’ perspective.

Kondo

If students were to be informed of the University’s support, more students might want to propose new ideas related to the environment. Is there any department where students can submit and share their ideas within our campus?

President Fukuda

There is no specific department that receives proposals relating to the campus environment at this time. We will think of something in addition to directly acquire students’ opinions at the meeting ‘To

read the university’s Environmental Report’.

Shirotono

Sometimes a small number of people use an empty classroom with all the lights and air conditioner on, which I think is a waste of energy. How about having faculty or administrative staff members lock empty classrooms, or creating a student organization that goes around turning off lights and air conditioners?

President Fukuda

Rather than placing restrictions on these things, we want the students to become aware themselves. Creating a student organization you suggest might work well, but at home you just naturally turn off lights or the air conditioning when they are not needed. We want you to keep the same kind of practice at the University.

Kondo

Last but not least, in addition to the environmental issues, the Great East Japan Earthquake is forcing Japan to change in a variety of ways. President Fukuda, could you please tell us what you expect the students at Kobe University to do in this coming era?

President Fukuda

I want you to look at things, including the environment, from a global perspective. In regard to energy conservation, Japan is highly advanced and globally competitive in each individual technology. When it comes to the integration with other technologies or disseminating them, however, I think we are rather slow. If we can overcome these issues, then I believe Japan will be able to solve the global problems regarding the environment, energy and food supply.

Another thing is to acquire skills and abilities to figure out what is real and determine its true value. With all the advanced information technology, we now live in an era in which all kinds of information can be obtained easily. However, if you do not go to where it is happening and see it for yourself, you cannot understand its true value, nor get a feeling of excitement. Especially for our students, if you come across a great research, you should go and talk directly to the researcher and learn the stories behind it. Try to see it for yourself and become a person who can determine the real value and make a contribution to humanity.



HINOSAKA, Masaya
(School of Business Administration, 3rd year)



SHIROTONO, Atsushi
(School of Business Administration, 3rd year)



KONDO, Hiroataka
(Graduate School of Human Development and Environment, Doctoral Program, 3rd year)

A Review from the Outside

I read the Kobe University “Environmental Report 2012.” First, I was deeply impressed by the firm and powerful declaration in the first passage of the Kobe University Charter on the Environment, which reads “As a world-class research and education institution, Kobe University pledges itself, through all of the university’s activities, to the preservation of the global environment and to the creation of a sustainable society, which are the two most important challenges the world faces today.”

I was also able to see that a variety of different activities are being undertaken based on the common understanding shared by all faculties. The 2012 report includes an interview with the University President by three students, providing an informal way for us to get a clear understanding of the President’s thoughts for the environment, as based on the Charter on the Environment.

I believe the meeting ‘To read the university’s Environmental Report’ is a great opportunity to understand the environmental activities undertaken by the University and to collect a variety of opinions from the attendants. I think that, by hearing opinions from the stakeholders such as university members (faculties, administrative staff members and students), alumni, parents, affiliated corporations, government bodies, local residents and other universities, the environmental preservation activities on campus will be enhanced, and this report will become even more significant resource for fresh information and to promote environmental awareness.

In regard to the environmental education and research, it was very interesting to read a variety of topics in different areas. The selection of the articles to be included in the report each year is a very challenging job for the editorial department. While an open call for submissions may be possible, not all of them can be included in the publication. The faculties undertake various activities relating to the environmental conservation, and those are what readers would be even more interested in. I would like to suggest that Kobe University to include a list and brief outline of all environment-related lectures and enlightenment programs in the annual report in order to promote reading of previous reports as well as refer readers to specific URLs.

The system for campus environmental conservation in your institution is very well organized with the Environment and Facilities Management Committee which is placed directly under the President and Executive Committee, and the subsidiary task forces and working groups collaborate closely with each faculty.

I found it very informative that the University sets high target for reduction of CO₂ emissions in the “Basic Policy for

Promotion of Environmental Management,” and implemented a variety of programs in order to achieve its goals. Every university is under pressure to reduce energy consumption. The three core measures for energy conservation are: a) improvement of control system, b) alteration of lifestyle and awareness-raising through education and enlightenment activities, and c) establishment of low energy facilities and technology development. From my perspective, your institution is well controlled by various means including the Environment Caravan, placement of devices for power consumption visualization, power demand forecasts, placement of solar power generation facilities and operational display. From here on, I expect that, under the collaborative efforts by the Environment and Facilities Management Committee, Center for Environmental Management, along with the newly established Office for Safety, Health and Environmental Management, Kobe University will further improve the environmental management system through new plans and operational reviews and become a world leading institution in education and research programs. As a neighboring university, we would like to refer to your approaches in a variety of ways moving forward.

The new “Environmental Reporting Guidelines, Fiscal Year 2012” states that an environmental report should include information on economic and social impacts including indicators associated with business operations and its environmental conservation activities. It is my desire that the PDCA cycle in your institution will further advance through the organizational evaluation based on the environmental policies and with consideration for costs and effects of environmental conservation programs.

Name : TAKEUCHI, Fumiaki

Present occupation : Associate Professor,
Environmental Management Center,
Okayama University

Profile :

Joined the center in 1986. Has engaged in environmental education, environmental management, and member of the Environmental Management Council.
Current main area of research: “Analysis of High Active Acidithiobacillus Ferrooxidans and their Application to Bioremediation and Resources Recovery”
Doctor of Engineering, Doctor of Agriculture and a member of the Graduate School of Environmental and Life Science at Okayama University.



Kobe University Charter on the Environment

Environmental Philosophy

As a world-class research and education institution, Kobe University pledges itself, through all of the university’s activities, to the preservation of the global environment and to the creation of a sustainable society, which are the two most important challenges the world faces today.

Flanked between the Pacific Ocean and the Rokko Mountains, Kobe University utilizes this regional locality to its advantage for the fostering of ecological-minded students and the dissemination of knowledge gained from academic researches to the world. Kobe University pledges to build a path toward the realization of a sustainable society as a common goal of humanity, through these efforts and by setting an example in the preservation of the environment.

Environmental Principles

1. To foster and support ecological-minded students.
2. To promote research that sustains the global environment.
3. To promote environmental preservation activities that set an example for others.

Related Topics on Environmental Education and Research

The Kobe University Tohoku Volunteer Bus and Kii Peninsula Flood Damage Projects

Career Center, Volunteer Support Group
Academic Promotion Researcher, Coordinator, FUJIMURO Reiji

■ Tohoku Volunteer Bus Project

Immediately after the Great East Japan Earthquake on March 11, 2011, the support office was contacted by many students asking, "Is there anything I can do?" However, with the uncertainty of the nuclear risk in Fukushima during March, and although it pained us, it proved difficult to immediately send student volunteers to the disaster area officially from Kobe University.

During the Golden Week (the first week of May), we were able to send our first volunteers to the coast of Iwate Prefecture, and by the end of March 2012 we had sent seven parties to the affected regions, comprising a total of 195 students.

Students on the Volunteer Bus have carried out a variety of activities, from clearing rubble and repairing houses to collecting sauries scattered from marine produce storage, but the primary focus was placed on communication between the students and the victims of the disaster. In order to promote this aspect, we implemented the "Foot Bathing Volunteers" program. While one soaks the feet in hot water for around 10 minutes, the student gently massages his or her hands. The recipients of this treatment seemed to highly appreciate it, with comments such as "it warmed up and relaxed me," and "I slept much better at that night."

This foot bathing created the opportunity for communication between the volunteers and the victims. During the 10 minutes of students' massaging their hands, the victims would open up and begin to talk by themselves. "You see bodies. You can't even tell if they are someone you know or not, they are so unrecognizable." "There's nothing to do in the temporary housing. Being there all day makes me depressed." "It's not

good just sitting around crying. We've got to laugh and keep on living."

Listening to such voices of the survivors allowed the students to feel closer to them, and sympathize with them more strongly. They also learned about the tsunami, and the current needs of the survivors.

■ Activities in the Kii Peninsula Flood Damage Regions

Nachikatsuura, one of the towns affected by the rain and flooding on the Kii Peninsula during September 2011, has also been visited numerous times by the Kobe University Students' "KOBE Foot Bathing Corps." From morning to evening they helped clear away mud and rubble, and then in the evening conducted foot bathing volunteer activities at the evacuation sites.

Through these activities, connections were developed with the residents of Nachikatsuura in Wakayama Prefecture. This led to the three days and two nights field work called "Nachikatsuura Agriculture & Fisheries and Tsunami & Water Damage" from March 13-15, 2012, as part of the Kobe University Volunteer Lectures. With the cooperation of the Nachikatsuura Town Office, the Katsuura Fishery Cooperative and the residents of the Irokawa and Ichinono areas that suffered severe water damage, the participants learned a great amount of information not only about the current state of the water damage and the issues facing recovery from it, but also a variety of other activities being undertaken in the region.



August 2011 Rikuzentakata City



March 2012 Wakayama



November 2011 Kamaishi City

Related Topics on Environmental Education and Research

Second Meeting 'To Read the University's Environmental Report'

In order to disseminate information about the annually published Environmental Report throughout the campus, and have the opportunity to listen to students' opinion and reflect them in future production of the Environmental Report as well as environmental preservation activities, a meeting 'To read the university's Environmental Report' was held on June 6, 2012 at the large meeting room on the second floor of the Takikawa Memorial Hall.

The meeting was chaired by Professor Katsuhiko Kokubu of the Graduate School of Business Administration and the Chairperson of the Environmental Reporting Work Group. Participating in the lively discussion were 11 students, a co-op staff member, and 14 faculty members - including Masami Shimobayashi, Executive Vice President in charge of general affairs and facilities; Takeshi Shimamura, Associate Professor of the Graduate School of Law and Chairperson of the Environmental Management Review Work Group; and Jun-ichiro Setsune, Director of the Center for Environmental Management.

Main feedbacks are as follows:

Regarding education, research, and management related to the environment

- Some of the texts, such as those on the images, are hard to see.
- The size of the PDF file placed on the website is large which took a long time to download. Would it be possible to divide into sections and upload them so that it becomes more user-friendly?

- In order to make the energy reduction volume in the Environmental Activity at Kobe University more understandable, how about presenting the figures compared to the case of regular households?
- How about creating a portal site to publicize and share information on the environmental activities, and provide a link to the student groups' websites?
- How about visualizing how the actions taken by students are being connected to the environmental policy?

Regarding future environmental activities

- How about including in the Environmental Report the University's actions taken in response to the feedbacks received during the meeting 'To read the university's Environmental Report'?
- In terms of energy conservation, removing some of the light bulbs seems more effective and easy to acknowledge.
- If there were environmental conservation activities which offer incentives to students, more students would probably take part in.

Every effort will be made to see that these feedbacks are reflected when putting together the Environmental Report and in future preservation activities.

(Related website)
<http://www.kobe-u.ac.jp/info/database/report/environmental.html>



Students expressing their opinion



Scene from the Meeting 'To read the Environmental Report'

Actions Taken in Response to Feedbacks from Last Year's Meeting 'To Read the university's Environmental Report'

| Feedbacks | Action Taken |
|--|--|
| Long-term and concrete objectives need to be set. | The target to reduce CO ₂ emissions by 15% has been set. |
| Kobe University should be more outspoken about what it considers as most important. | In order to make it clearer what the University considers important, the message from the President was represented as an interview with students in the Environmental Report 2012. |
| Consider decreasing the number of vending machines. | With the cooperation of the University Co-op which places most of the vending machines, the number of vending machines has been reduced. |
| Consider LED for lighting and using ESCO* services. | In accordance with the major remodeling schedule, LED lights are being sequentially introduced into corridors, toilets and other places. We investigated using ESCO services in the Kusunoki area and found out that the facility is not old enough to receive their service. We will reconsider the possibility when the facility exceeds the service life. |
| Consider reflecting opinions from students when putting together the Environmental Report. | We have had the Environmental Reporting Work Group involved since we started editing the "2011 Environmental Report", and we will continue to reflect students' feedbacks into the report. |
| It would be better if the effects of environmental education and research were more visibly displayed. | Currently under review. |
| Consider some programs which lead to environmental conservation activities as a matter of course. | Currently under review. |

※ ESCO: Energy Service Company.
 An environmental business that makes energy saving proposals for factories, office buildings and commercial facilities to improve their energy efficiency with a guarantee of cost reduction; they receive service fee based on the cost saved through their services

Environmental Activity at Kobe University

Saving energy and preventing global warming

1. Environmental goal

Kobe University adopted a university-wide initiative to reduce CO₂ emissions by 15% (in basic units, by total floor area) during the second Mid-term Plan (FY2010 to 2015).

2. Energy flow

Our efforts to save energy have concentrated on educational activities that involve faculties, administrative staff members and students, and on replacement of outdated equipments with highly efficient versions. In addition, for heating boilers in the Kusunoki area, we changed from ones that use heavy crude oil to city gas, which emit lower CO₂ emissions.

As a result, the total amount of CO₂ emitted in FY2011 decreased by 4.0% (1,379 CO₂ tons) compared to that of FY2010*.

The amount of CO₂ emissions by total floor area decreased by 10.3% (8.47 CO₂ tons / 1000m²) from that of the base year (FY2004).

The entire university will continue the effort to achieve the environmental goal, "to reduce CO₂ emissions by 15% in basic units" during the second Mid-term Plan (FY2010 to FY2015).

*The decrease in the amount of CO₂ emitted reflects the CO₂ conversion factor of the electricity purchased (officially published figure).

Table 1 Amount of CO₂ emitted (t-CO₂)

| | FY2004 | FY2009 | FY2010 | FY2011 |
|------------------------|--------|--------|--------|--------|
| Rokkodai One campus | 2,029 | 1,906 | 2,026 | 1,826 |
| Rokkodai Two campus | 12,318 | 11,623 | 12,155 | 10,857 |
| Tsurukabuto One campus | 1,426 | 1,244 | 1,270 | 1,169 |
| Tsurukabuto Two campus | 482 | 561 | 519 | 517 |
| Kusunoki area | 18,494 | 17,928 | 17,220 | 17,518 |
| Myodani area | 479 | 523 | 521 | 472 |
| Fukae area | 1,004 | 998 | 1,021 | 994 |
| Total | 36,232 | 34,783 | 34,732 | 33,353 |

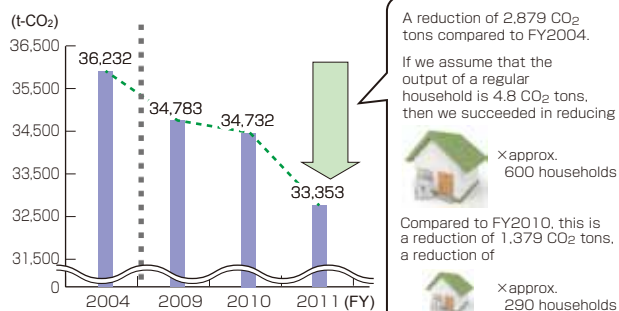


Chart 1 Amount of CO₂ emitted

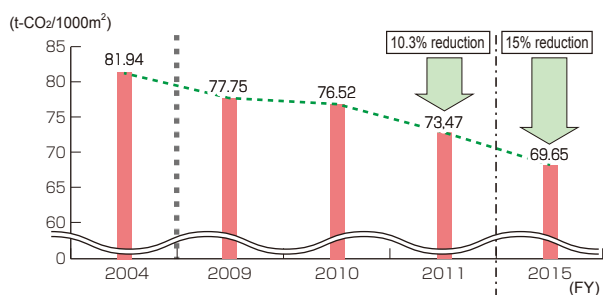


Chart 2 Amount of CO₂ emitted by total floor area

3. Amount of electricity used

The total amount of electricity used in FY2011 decreased by 2,344,000 kWh (3.4%) compared to that of FY2010.

This was mainly due to:

- All departments making a concentrated effort in saving electricity during summer and winter (reducing lights used, setting to a suitable temperature for air conditioning, limiting number of elevators in operation, and many others.)

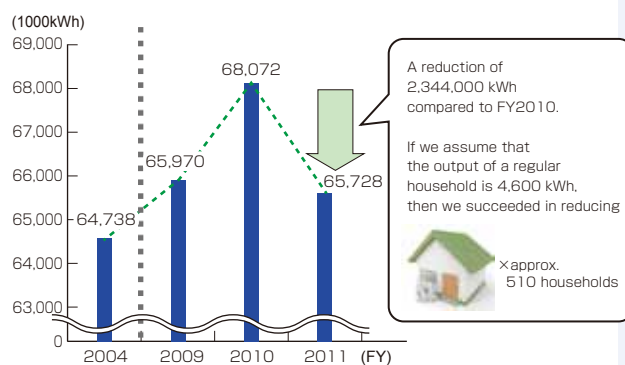


Chart 3 Amount of electricity used

4. Amount of city gas used

The total amount of gas used in FY2011 was almost equal to the previous year (a decrease of 22,000 m³ or -0.4%).

Future building renovations will include the introduction of more efficient machinery, working to further reduce energy consumption.

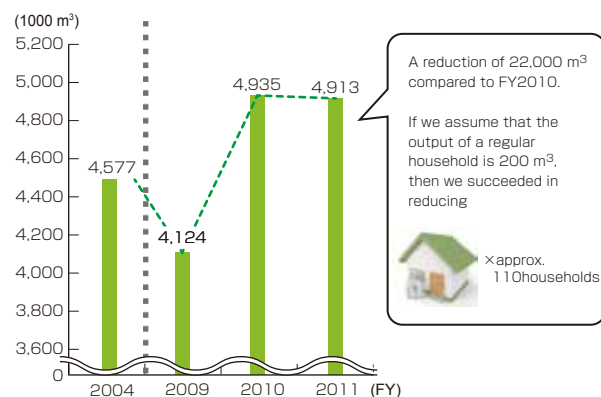


Chart 4 Amount of gas used

5. Amount of heavy crude oil used

The total amount of fuel oil used in FY2011 decreased by 170 kL (74.5%) compared to that of FY2010.

This was mainly due to:

- The shift from fuel oil (used for heating boilers for the Kusunoki area) to city gas that emits less CO₂.

The Rokkodai One, Tsurukabuto One and Kusunoki campuses stopped using boilers for heating. Therefore the amount of use dropped to zero. The Rokkodai Two campus uses negligible amount of fuel oil for emergency generators. Heavy crude oil is not used in the Tsurukabuto Two campus.

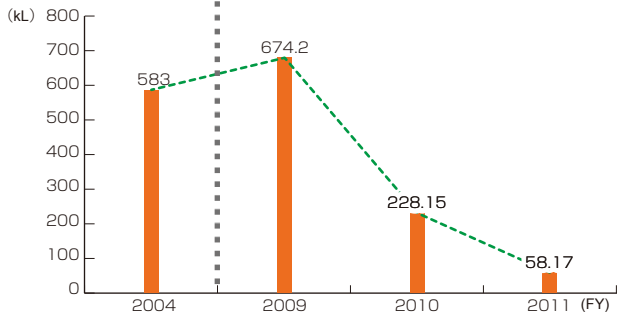


Chart 5 Amount of heavy crude oil used

Conserving resources and recycling

1. City water / General service water

City water

The total amount of city water used in FY2011 decreased by 26,000 m³ (6%) compared to that of FY2010.

This was mainly due to:

- Efforts to save water by applying automatic faucets when renovating buildings.

In addition, Rokkodai area utilizes general service water in order to preserve water resources.

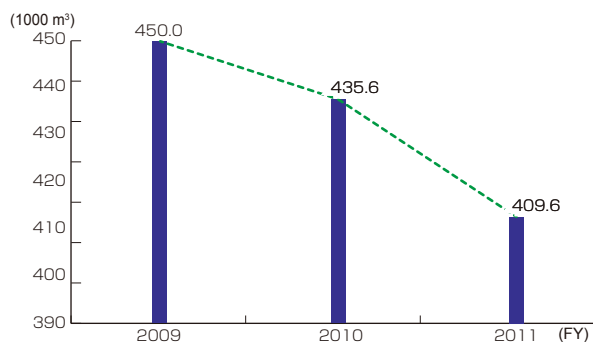


Chart 6 Amount of city water used

General service water

For the conservation of resources in the Rokkodai area, we use the Rokko Mountain river water as general service water in use for toilet flush, laboratories, and others.

The use of general service water was almost the same as the previous year (reduction by 849m³ (1%).

Efforts to conserve water will continue by applying water-saving toilets in renovated buildings.

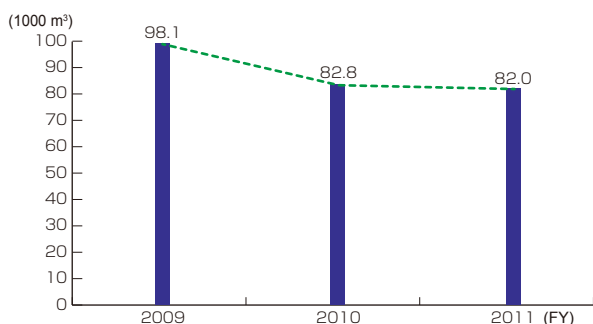


Chart 7 Amount of general service water used

2. General waste

Chart 8 shows the amount of solid waste produced from FY2008 to FY2011. "Volume recycled" indicates the volume of waste that contributed to recycling, and the chart numbers show the exact values for 2011. Bulk waste has been decreasing since 2009, with a further decrease of 13% in comparison to FY2010. This is due to completion of renovations and transfer of labs within the university, leading to less waste being produced. In FY2011 the volume of office paper waste increased, but almost all the increased amount was successfully recycled. Recycling for all other wastes remains in line with the previous year.

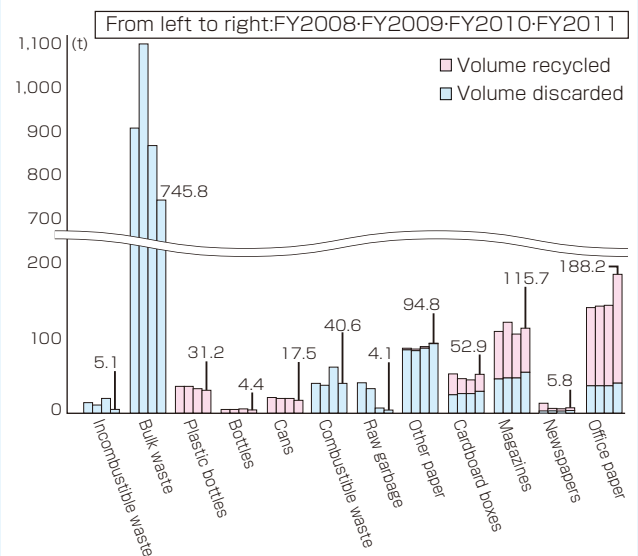


Chart 8 Amount of general waste produced by type of waste for FY2008 - FY2011

The total amount of solid waste produced in FY2011 decreased about 6% compared to that of FY2010. This was mainly due to a major decrease in the amount of bulk waste produced. The recycling rate has increased to approx. 22% (Chart 9).

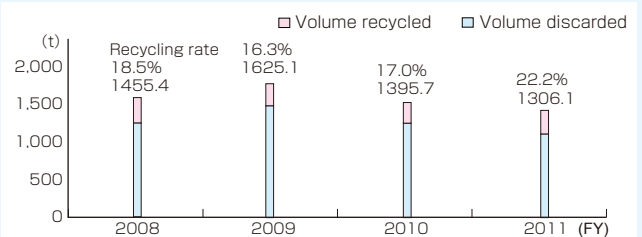


Chart 9 Changes in the total amount of general waste produced from FY2008 - FY2011

3. Office paper

Chart 10 shows the changes in the amount of office paper used from FY2008 to FY2011.

The volume of office paper used decreased by 3.47 tons (approx. 1.6%) compared to that of FY2010.

We must keep trying to reduce office paper usage by making it common practice to hold paperless meetings, lectures, and others to make copies using both sides of the paper, and to use the blank side of paper that has only been used on one side.

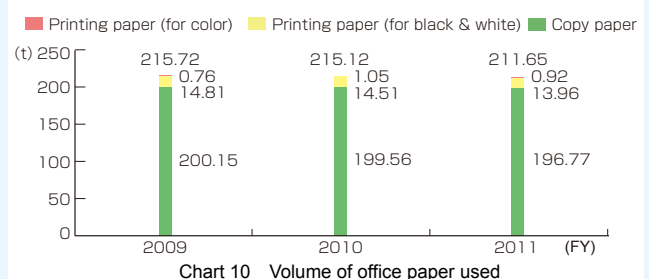


Chart 10 Volume of office paper used

What Went into This Environmental Report

The purpose of this report is to provide public access to the Kobe University Environmental Report 2012, which summarizes the environmental activities accomplished on the Kobe University campuses for a one-year period from Apr. 1, 2011 through Mar. 31, 2012.

Our Environmental Report mainly targets the members of our university including students, faculty and administrative staff members for the purpose of stimulating environment-related discussion inside and outside the campus. In addition to introducing readers to the environmental related topics, education and researches conducted throughout the campus, the Report also features our efforts in promoting environmental management system to further enhance environmental performance.

On June 6, 2012, a meeting 'To read the university's Environmental Report' took place at Kobe University and the following improvements were reflected into the report based on the feedbacks we received from vigorous discussion:

- (1) In order to make the energy reduction amount easier to understand, information which can be compared with the figures of regular household were added.
- (2) Details were added concerning the activities undertaken by the University in response to the main opinions expressed at the meeting 'To read the university's Environmental Report'.
- (3) The PDF data uploaded to the website was optimized to a size more suitable for easier download.

| | |
|---------------------------------------|---|
| Reference guidelines ● | Environmental Reporting Guidelines, Fiscal Year 2012 Version (Ministry of the Environment, April, 2012) Guidelines for items to be mentioned in environmental reports, second edition (Ministry of the Environment, Nov. 2007) |
| Survey locations ● | Rokkodai area: Rokkodai One campus (main departments: Faculty of Law, Faculty of Economics, School of Business Administration, Graduate School of Law, Graduate School of Economics, Graduate School of Business Administration, Graduate School of International Cooperation Studies) Rokkodai Two campus (main departments: Administrative offices, Faculty of Letters, Faculty of Science, Faculty of Agriculture, Faculty of Engineering, Graduate School of Humanities, Graduate School of Science, Graduate School of Engineering, Graduate School of Agricultural Science) Tsurukabuto One campus (main departments: Faculty of Intercultural Studies, Graduate School of Intercultural Studies, and Institute for Promotion of Higher Education) Tsurukabuto Two campus (main departments: Faculty of Human Development and Graduate School of Human Development and Environment) Kusunoki area (main departments: School of Medicine, Graduate School of Medicine, and University Hospital) Fukae area (main departments: Faculty of Maritime Sciences and Graduate School of Maritime Sciences) Myodani area (main departments: School of Medicine Faculty of Health Sciences and Graduate School of Health Sciences) |
| Fiscal year of operations ● | Fiscal 2011 (from April, 2011 through March, 2012) |
| Date of issue ● | September 30, 2012 |
| Planned date of next issue ● | September 30, 2013 |
| Department in charge of publication ● | Environment and Facilities Management Committee (Chairperson: SHIMOBAYASHI, Masami, Executive Vice President in charge of General Affairs and Facilities) Environmental Management Subcommittee (Subcommittee head: SHIMOBAYASHI, Masami, Executive Vice President in charge of General Affairs and Facilities) Environmental Reporting Work Group (Chairperson: Prof. KOKUBU, Katsuhiko, Graduate School of Business Administration) |
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| URL ● | http://www.kobe-u.ac.jp/report/environmental/2012/ |

Cover ●

The "Uribo Road - Walking Trail" was created in the west side of the Rokkodai Two campus Graduate School of Engineering area, in order to offer the shortest route from Hankyu Rokko through to Tsurukabuto One campus and the Institute for Promotion of Higher Education (where lectures for subjects common to all faculties are held).

The path is managed and maintained by the Graduate School of Engineering so that not only students heading to the Institute for Promotion of Higher Education for lectures but also many others can safely travel within the campus. The Graduate School of Engineering collected names for the path in fall 2007, and "Uribo Road" ("uribo" meaning a boar piglet in Japanese) was finally selected as its name.



The north end of the Uribo Road



The middle section of the Uribo Road



The south entrance to the Uribo Road



The south side of the Uribo Road

