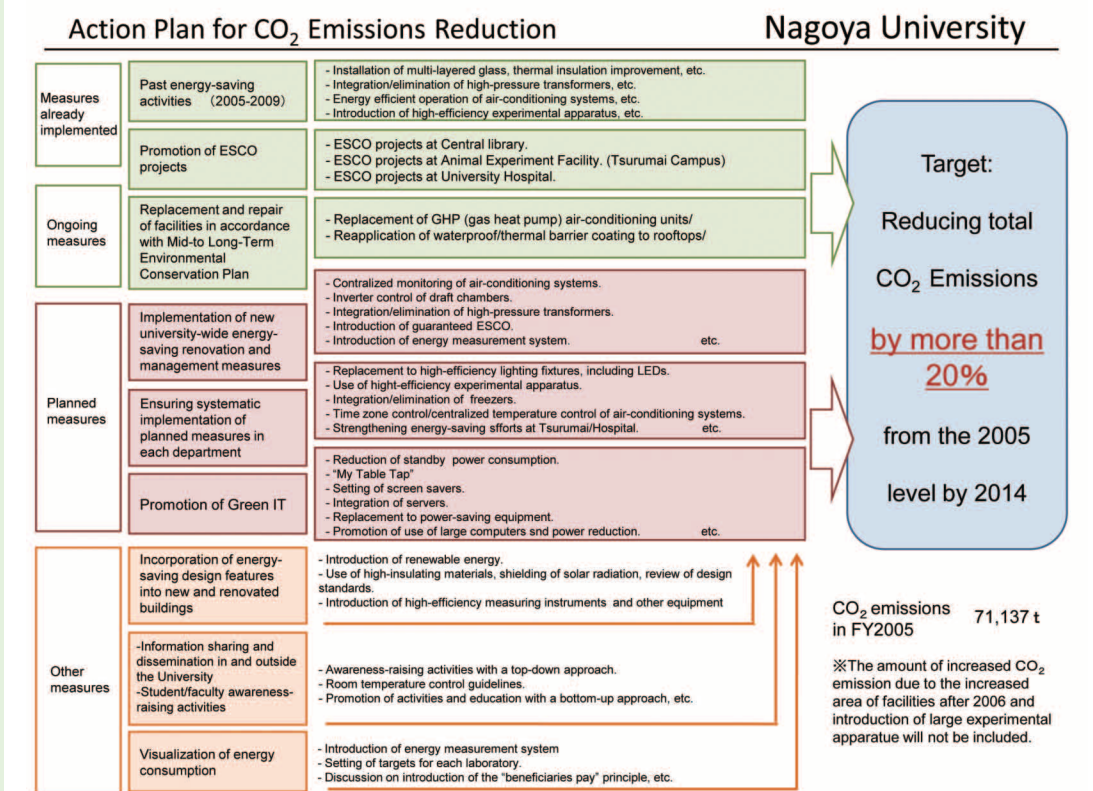


CO₂ Emissions Reduction Program

Nagoya University accurately understands the environmental impact of its activities and actively promotes environmental conservation measures, including reduction of CO₂ emissions and energy-saving activities.

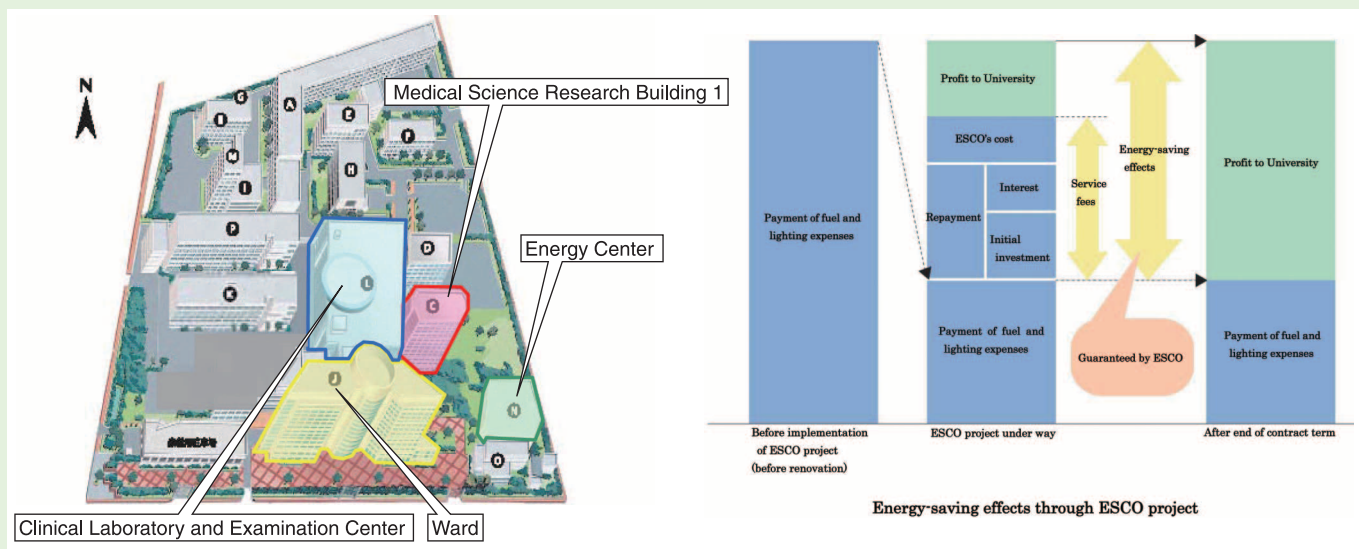
Specifically, the University set a target of reducing CO₂ emissions by more than 20% by 2014 from the 2005 level of 71,137 tons. To achieve this target, the University will vigorously implement various measures stipulated in the Action Plan for CO₂ Emissions Reduction.



Environmental Efforts at Tsurumai Campus

The Tsurumai Campus mainly consists of the School of Medicine and University Hospital. Since FY2008, as part of ESCO projects, various measures to reduce environmental loads have been implemented in the campus facilities, including introduction of energy-saving equipment. In FY2009, as an ESCO project, heat source equipment in the Ward, New Clinical Laboratory and Examination Center, Medical Science Research Building 1, and Energy Center were replaced with high-efficiency equipment.

Through these measures, the Tsurumai Campus is expected to achieve an energy-saving rate of 20.6%, and CO₂ emissions reduction rate of 21.0% (amount of CO₂ emissions reduction: 7,090 t/year), compared to FY2007.



As a project to improve the working environment of students at the School of Medicine, a laboratory table with a local air exhauster was installed to minimize student and teacher exposure to formaldehyde when performing dissections in anatomy class. This table is capable of effectively reducing formaldehyde exposure to the students and removing formaldehyde vapors through an exhaust pipe that runs from the bottom of the table to a ventilation hole in the ceiling, right above the table.

What Each of Us Can Do for the Environment

With the aim of realizing a low-carbon eco-campus, Nagoya University has developed a midterm action plan for reducing CO₂ emissions resulting from its activities. From this year, various university-wide measures are being implemented in accordance with the action plan. In addition to the large-scale university-wide measures, it is important that each student and staff member make daily conscious efforts to conserve energy. In the full version of the environmental report, many simple energy-saving measures that we can do to reduce impacts on the environment are presented, including the following:

- Set the temperature at 28°C or higher in summer and 19°C or lower in winter.
- Cooperate with the campus-wide summer break closure.
- Cooperate with cutting power consumption when usage is predicted to exceed the contracted capacity during summer time.
- Display energy saving stickers at conspicuous places and ensure the room temperature is clearly visible.
- Cooperate with the Lunchtime Lights Off Campaign.
- Cooperate with the Energy-Saving Settings Campaign to promote energy-saving settings for personal computers (more than 30% energy savings is achieved with energy-saving settings).



Digest Version [Editorial Postscript]

The most noteworthy news of this year is the revision of the environmental policy in October 2010. The new environmental policy comprises "Fundamental Principle" and "Basic Policies," with Basic Policies consisting of four components: Basic Position, Environmental Management, Environmental Performance, and Social Responsibility & Environmental Communication. The Environmental Policy outlines our commitment to contributing to the harmonious development of humans and nature and to fulfilling our social responsibilities through education and research activities. As stated in the environmental policy, we are committed to working on environmental improvements on a voluntary and continuous basis. As part of our efforts to this end, we evaluated past environmental activities, and in this issue, have summarized the major topics and activities covered in our environmental reports over the past five years.

The revision work took nearly two years to complete. In the course of the discussions for policy revision, valuable comments and suggestions were gained. The *Environmental Report 2010* (full version) was created by incorporating those comments and suggestions. A self-evaluation of the *Environmental Report 2010* was also conducted, and the results have been published on the University website. Please visit the University website to view the Environmental Report and self-evaluation results. We will strive to create environmental reports that reflect the university's character. We invite your candid comments and opinions about this report, for which I thank you most sincerely in advance.

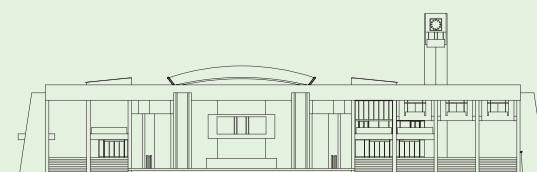
Shizuaki Murata, Chairman, Environmental Report Review Working Group

What I Expect of Nagoya University (comments after self-evaluation)

Through self-evaluation activities, I strongly feel that the work of preparing and evaluating the environmental report is a valuable opportunity for learning. I believe that it is important for all of us to reflect on our daily activities and critically analyze the impacts that our activities have on the environment. By doing so, environmental awareness will be promoted, leading to more active involvement in environmental activities. Nagoya University has been conducting environmental education programs using its environmental report. I strongly hope that in the future, NU students and faculty members have more opportunities to participate in the preparation and evaluation of the environmental report.

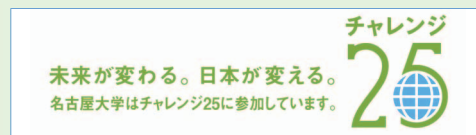
Ko Nomura, Associate Professor, Graduate School of Environmental Studies

The full version of the *Nagoya University Environmental Report* can be found at: <http://web-honbu.jimu.nagoya-u.ac.jp/fmd/rpt.html> (in Japanese)



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Nagoya University, National University Corporation
Environmental Report
(Digest Edition)
2010



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Message from the President



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Nagoya University's Commitment to Harmonious Development of Human Beings and Nature

Nagoya University has established an environmental policy that reflects its commitment to contributing to harmonious development of human beings and nature. In line with our environmental policy, we have developed and vigorously implemented various measures and activities to set a good example in environmental conservation. The Tenth Meeting of the Conference of the Parties to the Convention on Biological Diversity (COP10) will be held in Nagoya City in October 2010. I believe that this event will help Nagoya City establish its position as a "leading-edge city" tackling biodiversity loss and other environmental threats around the world. Since last year, Nagoya University has undertaken various programs to support COP10. Furthermore, in connection with the nation's midterm target of a 25-percent cut in greenhouse gas emissions by 2020 from 1990 levels, announced by then Prime Minister Hatoyama at the United Nations Summit on Climate Change held in September 2009, Nagoya University developed the "Nagoya University Campus Master Plan 2010," with the aim of creating a low-carbon eco-campus. In the Master Plan, we set a target to reduce CO2 emissions more than 20 percent by 2014 from 2005 levels, and have launched various programs and activities to achieve that target.

The new programs will complement our ongoing energy conservation and environmental protection efforts, which have already produced remarkable results (which multiple awards confirm). I believe that our new environmental initiatives will help people around the world understand the direction we are heading. Since 2006 we have published environmental reports each year, to communicate our environmental activities to stakeholders and seek their support. Moreover, as part of our efforts to improve our environmental reports, we conduct a self-evaluation in terms of accuracy and ease of understanding, and publish self-evaluation results. All these efforts have produced fruitful results; for instance, our *Environmental Report 2009* won the Green Reporting Award (Prize for Public Entity), and a Secretariat staff member in charge of energy conservation work was awarded the "2009 Award of Excellent Engineer of Energy Conservation." These achievements attest to the high standards of expertise of our faculty and staff involved with environmental issues. Nagoya University has produced four Nobel laureates. This demonstrates that Nagoya University's educational and research standards are among the highest in the world. We hereby pledge to strive to remain a university capable of making meaningful contributions to the global community, by addressing various challenging problems through the combined and coordinated efforts of faculty and students.

Michinari Hamaguchi, President of Nagoya University, September 2010

Environmental Policy

The fundamental principles of scholarly activity for Nagoya University are set down in the Nagoya University Academic Charter. Within the Charter, it is written that "Based on the academic traditions of freedom and generosity, our mission is to contribute to the happiness and well-being of human beings, through research and education related to humanity, society and nature." The development of civilization, and the current activities of human beings, will have a great influence on future generations. Therefore, based on our Charter, and in order to fulfill our role in society and to contribute to the harmonious development of humanity and nature through research and education that are rich in imaginative power, we hereby set the following fundamental principle and policies of Nagoya University regarding the environment.

1 Fundamental Principle

Recognizing that human beings have created a vast diversity of cultures and values, we will, for the benefit of future generations, consider which aspects should be truly respected, and contribute to the realization of a society that can maintain such traditions and values.

2 Basic Policy

Basic Position

(1) In order to investigate the causes of environmental problems, and find suitable means for dealing with them, all academic fields will develop educational and research programs that aim toward sustainable development.

Environmental Management

(2) In order to plan further improvements in environmental management, we will (together with related parties) consider what attitudes and actions are necessary for universities, put them into practice, and further pursue them.

Environmental Performance

(3) Recognizing (together with related parties) that our own activities involve environmental effects and responsibilities, we will work to find comprehensive and systematic solutions that will reduce our environmental impact, and enable us to take preventive measures.

Social Responsibility and Environmental Communication

(4) With respect to laws and ethics, we will work to enhance trust from local and international communities, by making information available publicly, and through communication and mutual understanding with related parties.

※ *Environmental Report 2010* (full version) contains the Environmental Policy before revision.

Environmental Report Summary Continuing Improvement in Environmental Activities

Nagoya University continues university-wide environment-related activities. These activities are summarized below.

Red text refers to awards received.

🟢 = Improved over previous year
🔴 = Further improvement required

Report Period	Environmental Management in General	Anti-Global Warming and Energy-Conservation Measures	Waste Management Measures	Chemical Substance Management	Community and Student Relations
FY2005 	 ● University-wide summer break closure started. (2005-)	● Collaborative agreement with Nagoya Carbon & Technology Exchange concluded. (Nov 2005) ◎Greenhouse Gas Emission (CO ₂ equivalent, compared to 2003) FY2005 Results Higashiyama⇒6.8% up Tsurumai⇒3.6% up	● Waste Treatment Handler Training held. (June 2005) ◎Combustible/Non-combustible Waste Amount (compared to previous year) FY2005 Results Higashiyama⇒2.4% down Tsurumai⇒9.0% down	● Management System of Chemical Substances-Nagoya University (MaCS-NU) User Training held. (June 2005) ● 268 laboratories registered approx. 90,000 chemicals. ◎Recorded ratio⇒80%	● Nagoya University Jr. High School 2nd year students participated in Eco Tour at EXPO 2005 Aichi. (2005)
FY2006 	● Safety Management Headquarters established, and previous waste treatment facility reorganized into the Center for Environment Management and Safety to reinforce waste management system. (Apr 2006) ● Environmental Report 2006 (inaugural issue) issued (Sep 2006) 	● Energy Management Research and Review Group held achievement presentation under the theme of "NU-Origin Energy Conservation Promotion and Global Warming Prevention." Energy saving activities got into full swing. (Mar 2007) ◎Greenhouse Gas Emission (CO ₂ equivalent, compared to 2003) FY2006 Results Higashiyama⇒7.4% down Tsurumai⇒6.0% down Daiko⇒21.8% down	● Honored by Council of Institutional Environment Safety for appropriate treatment of waste from experiments. (June 2007) ● Waste Treatment Handler Training held. (June 2007) ◎Combustible/Incombustible Waste Amount (compared to previous year) FY2006 Results Higashiyama⇒12.2% up Tsurumai⇒0.4% down Daiko⇒7.1% up	● Chemical Substance Management System Guidelines enacted. (June 2006) ● MaCS-NU User Training held (June 2006) ● 300 laboratories registered approx. 100,000 chemicals. ◎Recorded ratio⇒88%	● Collaboration with "Nagoya Open University of the Environment" ● "Meichari Project (Nagoya Bike Sharing Scheme)" started in collaboration with Nagoya City and university students utilizing abandoned bicycles (June 2006-)
FY2007 	● Self-assessment of Environmental Report started. (Aug-Sep 2008) ● Environmental accounting report started. (Sep 2007) ● Authorized as "Nagoya City Eco Business Establishment" (Oct 2007) ● Received Prize of Minister of Economy, Trade and Industry Award for Successful Case of Energy Conservation in Factories & Buildings FY2007 (Jan 2008) ● Received Excellent Prize, Aichi Environmental Award 2008 (Mar 2008)	● NU Library and ESCO concluded comprehensive service agreement for energy conservation. (Aug 2008) ● NU-ESCO energy-saving project started. (July 2008-) ◎Greenhouse Gas Emission (CO ₂ equivalent, compared to 2006) FY2007 Results Higashiyama⇒No change Tsurumai⇒10.7% up Daiko⇒0.9% down	● Waste Treatment Handler Training held. (June 2008) ● Plastic bags became chargeable at NU Co-op. (Oct 2008) ◎Combustible/Incombustible Waste Amount (compared to previous year) FY2007 Results Higashiyama⇒9.5% down Tsurumai⇒1.9% down Daiko⇒3.3% up	● "Nagoya University Chemical Substance Management Regulations" enacted. (Apr 2008) ● Centralized treatment of "unwanted chemical agents" started. (2007-2008) ● MaCS-NU User Training held. (June 2007) ● 300 laboratories registered approx. 110,000 chemicals. ◎Recorded ratio⇒74%	● Environmental Report education and student questionnaire started. (Planned to be conducted every year from FY2007) ● Lecture "Challenges to Environmental Problems" made open to public. (2007) ● Collaboration with "Nagoya Open University of the Environment"
FY2008 	● Received Nagoya City Eco Business Establishment – Excellent Prize 2008. (Feb 2009) 	● ESCO projects conducted at Tsurumai Campus ● Energy-Saving patrol implemented ◎Greenhouse Gas Emission (CO ₂ equivalent, compared to 2006) FY2008 Results Higashiyama⇒11.0% down Tsurumai⇒1.0% up Daiko⇒8.8% down	● Waste Treatment Handler Training held. (June 2008) ● Plastic bags became chargeable at NU Co-op. (Oct 2008) ◎Combustible/Incombustible Waste Amount (compared to previous year) FY2008 Results Higashiyama⇒6.1% up Tsurumai⇒1.0% up Daiko⇒26.1% down	● MaCS-NU User Training held. (June 2008) ● 330 laboratories registered approx. 120,000 chemicals. ◎Recorded ratio⇒69%	● Nagoya University extension lectures held. (Aug-Oct 2008) ● 4th Homecoming Day, attended by a total of 5,000 alumni, students' families, and local residents
FY2009 	● Action Plan for CO ₂ Emissions Reduction (20% reduction from the 2005 level by 2014) ● "Excellent Engineer of Energy Conservation, Chubu Region Electricity Usage Rationalization Committee Chairperson's Award 2009" received. ● "Prize for Public Entity, Green Reporting Award" received. (Sponsored by Toyo Keizai Inc., Green Reporting Forum)	● ESCO projects conducted at Tsurumai Campus ● Energy-Saving patrol implemented ◎Greenhouse Gas Emission (CO ₂ equivalent, compared to 2006) FY2009 Results Higashiyama⇒14.1% down Tsurumai⇒2.8% up Daiko⇒8.8% down	● Waste Treatment Handler Training held. (June 2009) ◎Combustible/Incombustible Waste Amount (compared to previous year) FY2009 Results Higashiyama⇒19.8% down Tsurumai⇒2.0% up Daiko⇒14.0% up	● Chemical substance management system (MaCS-NU) strengthened. ● Asbestos treatment for all relevant facilities at the University completed. (Mar 2010) ● Implementation of measures to improve work environment at Tsurumai Campus launched. ◎Recorded ratio⇒63%	● "ECO LABO" Project (Meichari Project 2009) ● Small-size home appliance collection program implemented. ● Daiko Campus Cleanup (June 2009) ● Noise control measures (installation of sound-proof panels) implemented.

Energy-Saving Activities Summary (2004-)

Major energy-saving activities at Nagoya University (For building equipment-related energy-saving measures, see the list marked * on the right.)
 ① Monthly energy consumption per campus and ongoing energy conservation measures published on website (2004-)
 ② Summer/Winter Energy-Saving Campaign and Lunctime Lights Off Campaign (2004-)
 ③ E-mail notice to reduce power consumption when usage is predicted to exceed the contracted capacity on Higashiyama Campus during summer time (2004-)
 ④ Energy saving activity survey using energy saving check sheet and publication of survey results (2005)
 ⑤ Energy saving practice ensured by appointing Energy Saving Promoters (2005-)
 ⑥ Energy saving through university-wide summer break closure (2 weekdays in Aug) (2005-)
 ⑦ Energy Saving Patrol (2009-)

* Building equipment-related energy-saving measures (FY2009 results)
 ① Greening of rooftops (2,544 m² in FY2009, total 7,667 m² FY2001-2009)
 ② Use of high-performance insulated glazing (3,200 m² in FY2009, total 13,770 m² FY2003-2009)
 ③ Installation of high efficiency transformers (44.8% on Higashiyama Campus, 44.9% on Tsurumai Campus, and 100% on Daiko Campus)
 ④ Installation of exterior wall insulation, thermal barrier waterproof sheets, thermal barrier paints, etc.
 ⑤ Energy efficiency measures implemented, including installation of high-efficiency inverter lights; air-conditioning system with high-efficiency inverters, motion sensors and energy-saving circulators; water cooling system with circulation powered by inverter pump