Keio University

ISCN-GULF Sustainable Campus Charter Report 2010/11

Introduction

About Keio University:

Keio University is a private institution founded in 1858 at the end of the Japanese feudal period by renowned philosopher and educator Yukichi Fukuzawa, who contributed significantly to the modernization of Japan. Yukichi Fukuzawa valued "intellect and morality" and "honorable character" in the course of learning, aspiring to shape the characters of individuals fit to lead society. That vision has been inherited until this very day, and Keio's overarching goals include contributing to environmental conservation and development of a sustainable, recycling-based society through its educational, medical, and research activities.

Keio consists of 10 undergraduate faculties and 14 graduate schools, a total of 8 affiliated primary and secondary schools, 1 university hospital, 10 research institutes, and 26 various centers. Keio has a total of 41,229 students and 5,842 full-time faculty and staff members. The total floor area of Keio's 6 campuses, 8 affiliated schools, and university hospital combined is 696,704 square meters.

Keio reports its activities in its Annual Report published in May of each year and on the Keio University official website.

On this report:

Keio is a member of the Global University Leadership Forum (GULF) and a signatory of the International Sustainable Campus Network (ISCN) charter. This is Keio's first ISCN-GULF Charter Report, primarily for the 2010/2011 and 2011/2012 academic years, which begin in April and end in March of the following year, and data available from January through September 2012 (using all data which was available at the time of report publication for 2012 indicators). This report is a stand-alone document, with content drawn from other documentation developed by Keio related to sustainability.

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Principle 1 – Sustainability Performance of Buildings on Campus

Principle 1: To demonstrate respect for nature and society, sustainability considerations should be an integral part of planning, construction, renovation, and operation of buildings on campus.

A sustainable campus infrastructure is governed by respect for natural resources and social responsibility, and embraces the principle of a low carbon economy. Concrete goals embodied in individual buildings can include minimizing environmental impacts (such as energy and water consumption or waste), furthering equal access (such as nondiscrimination of the disabled), and optimizing the integration of the built and natural environments. To ensure buildings on campus can meet these goals in the long term, and in a flexible manner, useful processes include participatory planning (integrating end-users such as faculty, staff, and students) and life-cycle costing (taking into account future cost-savings from sustainable construction).

Management Approach to Principle 1 Topics

Keio does not have a specialized organization engaged in sustainable campus activities but encourages each division to conduct activities autonomously. For example, each of Keio's faculties and graduate schools endeavor to give back intellectually to society without bias, actively holding public lectures and symposiums including research related to sustainability and conducting technology transfer of research findings. Conversely, the Facility Management Office, which supervises Keio facilities and equipment, plays a leadership role in the environmental burden caused by campus activities and is promoting policies to consistently reduce the amount of energy usage per square meter of total floor area.

In order to cope with the drastic reduction in power supply capabilities caused by the Great East Japan Earthquake of 2011, Keio took further institutional energy-saving measures such as raising the minimum temperature allowed for air conditioning, "delamping" or the reduction/removal of unnecessary light bulbs/fixtures, and decreasing the number of running elevators. Keio students and faculty and staff members also came together to take energy-saving measures a step further, turning off unneeded lights and air conditioning and adjusting the academic schedule and mode of examinations. As a result, though Keio's total floor area increased by 2.6% in the 2011 academic year, it achieved an energy and gas reduction of 15.7% and 5.7% respectively when compared with the previous year.

In commemoration of its 150 anniversary, Keio University also renovated multiple buildings throughout its campuses to achieve better energy efficiency and waste reduction; the *Kyoseikan* on Hiyoshi Campus, built in 2008-2009, is the first of its kind, being the first recipient of the highest rank of “Superior” on Yokohama City’s Comprehensive Assessment System for Building Environmental Efficiency (CASBEE). Thermal energy storage which produces ice during the night hours to be used during the day; skylights to cut energy usage and utilize natural lighting during daytime; base isolation to withstand earthquakes; and a direct entrance to the subway system are some of the highlights which illustrate Keio’s dedication to sustainability in its architecture. As a prototype of an “open university”

(*hirakareta daigaku*) which houses not only university classrooms, graduate schools, and research facilities, but also civilian facilities open to the public—a convenience store, fitness center, restaurants, cafes, and even a pharmacy and daycare—the *Kyoseikan* serves as a model of architecture for future universities that wish to be rooted in and dedicated to their community.

Main initiatives and results

Keio currently promotes a reduction in energy usage as a priority issue. Keio has shown successful results in decreasing negative effects on the environment by installing energy-saving machines and equipment; the sustained collaborative efforts of both students and faculty/staff members to frequently turn off lights and recycle have also contributed to this success.

Overview of Keio's Principle 1 Goals

Topics	Goals and Initiatives		Results	
Priority topics (with units of measurement)	Objectives and targets (for reporting year, for the following year, and/or beyond)	Key Initiatives (in reporting year, and /or planned for the following and beyond)	Performance 2010/2011	Performance 2011/2012
Resource use				
Energy Consumption	Further reduction of energy consumption	Gas-engine cogeneration systems (CGS) installed on each campus with the exception of Shiba-Kyoritsu. Installation of two systems each on the Shonan Fujisawa Campus and Yagami Campus in 2000. By 2008, that number rose to 9 throughout all campuses for a total electrical output of 2,8000kWh. By-product heat from gas engines used primarily in air conditioning. Moreover, efforts are being	Mita 119,946 GJ Hiyoshi 217,736 GJ Yagami 202,018 GJ Shinanomachi 507,075 GJ Shonan-Fujisawa 121,590 GJ	Total floor space increased to 102.6% compared to the previous financial year, but energy consumption was reduced to 86.8% from the previous year for a total of 1,088,685 GJ for all campuses. Average energy consumption per square meter decreased significantly in 2011,

		made to reduce the environmental impact of its buildings by proactively utilizing natural energy and improving insulation when building new structures.	Shiba-Kyoritsu 46,116 GJ Affiliated Schools 40,404 GJ	from 1.85GJ/㎡ in 2010 to just 1.56GJ/㎡ in 2011. The figures for each campus are as follows. *( ) are percentage figures from the previous year. Mita 108,186 GJ (90.2%) Hiyoshi 185,037 GJ (85.0%) Yagami 173,421 GJ (85.8%) Shinanomachi 446,674 GJ (88.1%) Shonan Fujisawa 101,811 GJ (83.7%) Shiba-Kyoritsu 40,575 GJ (88.0%) Affiliated Schools 32,981 GJ (81.6%)
Electricity Consumption	Further reduction of electricity consumption (pursuing increased energy-saving measures to cope with the drastic reduction of power supplying capabilities of the Tokyo Electric Power Company (TEPCO) due to the Great East Japan Earthquake)	Upon the restriction of electricity use followed by Article 27 of Electricity Business Act enacted by the Japanese government during the summer months, various power-saving measures have been taken, such as modification of the minimum temperatures of its air conditioning, "delamping" or the reduction/removal of unnecessary light bulbs/fixtures, and decrease in the number of running elevators; moreover, the academic schedule was reviewed, examination methods revised, campus activities (extracurricular activities) limited, and events canceled or their dates changed. No laws were enacted by the government in the winter months, yet the same measures were performed	Mita 9,917,000 KWh Hiyoshi 16,416,000 KWh Yagami 15,498,000 KWh Shinanomachi 36,909,000 KWh Shonan Fujisawa 10,,280,000 KWh Shiba-Kyoritsu 3,754,000 KWh	Total floor space increased to 102.6% compared to the previous financial year, but electricity use was reduced to 84.3% from the previous year for a total of 81,223,000 KWh for all campuses. The figures for each campus are as follows. *( ) are percentage figures from the previous year. Mita 8,755,000 KWh (88.3%) Hiyoshi 13,249,000 KWh (80.7%) Yagami 13,317,000 KWh (85.9%) Shinanomachi 31,130,000 (84.3%) Shonan Fujisawa

		as summer. Additionally, new energy-saving goals were set forth towards all students, faculty, and staff members. At any given time, energy usage during the past 24 hours is made visible for all campuses in order to share an increased awareness of Keio's energy usage. (Reference) Keio Campuses Energy Usage for the Past 24 Hours http://setsuden.keio.ac.jp/chartp/power_all.html (Reference) Energy-Saving Target for the 2012 Academic Year http://www.keio.ac.jp/ja/news/2012/kr7a4300000adt62.html	Affiliated Schools 3,631,000 KWh	8,458,000 KWh (82.3%) Shiba-Kyoritsu 3,393,000 KWh (90.4%) Affiliated Schools 2,921,000 KWh (80.4%)
Gas Consumption	Further reduction of gas consumption	Not only reduced gas consumption, but also reduced amount of smoke produced by making its boilers' heating process more efficient as a measure against air pollution caused by burning fossil fuels. (*Keio disposed of all oil-burning heat source equipment which have a major environmental impact.)	Mita 515,000 ㎡ Hiyoshi 1,278,000 ㎡ Yagami 1,128,000 ㎡ Shinanomachi 3,263,000 ㎡ Shonan Fujisawa 473,000 ㎡ Shiba-Kyoritsu 210,000 ㎡ Affiliated Schools 110,000 ㎡	Total floor space increased to 102.6% compared to the previous financial year, but energy consumption was reduced to 94.3% from the previous year for a total of 6,577,000 ㎡ for all campuses. The figures for each campus are as follows. *( ) are percentage figures from the previous year. Mita 505,000 ㎡ (98.2%) Hiyoshi 1,238,000 ㎡ (96.9%) Yagami 965,000 ㎡ (85.6%) Shinanomachi 3,174,000 ㎡ (97.3%) Shonan Fujisawa 428,000 ㎡ (90.6%)

				Shiba-Kyoritsu 166,000 ㎡ (78.7%) Affliated Schools 100,000 ㎡ (90.2%)
Water Consumption	Further reduction in water consumption	Uses rainwater and has installed water-saving equipment as water-saving measures. Additionally, water collected on the 3,600 ㎡ on the roof of the Raiosha on Hiyoshi Campus is used to clean the restrooms. More reductions anticipated as renovations occur and more water-collection systems installed. Water-saving equipment also installed when restrooms are renovated. Water conservation achieved by installing low flux, sensor sinks and toilet flush valves which consume less water.	Mita 57,000 ㎡ Hiyoshi 168,000 ㎡ Yagami 97,000 ㎡ Shinanomachi 383,000 ㎡ Shonan Fujisawa 57,000 ㎡ Shiba-Kyoritsu 30,000 ㎡ Affiliated Schools 50,000 ㎡	Total floor space increased to 102.6% compared to the previous financial year, but water consumption was reduced to 90.5% from the previous year for a total of 762,000 ㎡ for all campuses. Moreover, the amount of water per person (not including Shinanomachi) decreased from 9.8 ㎡/person in 2010 to 9.1 ㎡/person in 2011. The figures for each campus are as follows. *( ) are percentage figures from the previous year. Mita 54,000 ㎡ (95.2%) Hiyoshi 154,000 ㎡ (91.4%) Yagami 94,000 ㎡ (97.2%) Shinanomachi 334,000 ㎡ (87.1%) Shonan Fujisawa 52,000 ㎡ (92.3%) Shiba-Kyoritsu 29,000 ㎡ (97.4%) Affiliated Schools 45,000 ㎡ (89.0%)

Waste, recycling, local emissions, and non-compliance		
Topics	Goals and Initiatives	Results (2009-2011)
Waste	●Waste Reduction Acting on the belief that the first step to waste	The total amount of waste generated in 2011 was 2,475.6t, a

	and resource issues is to suppress the quantity of waste produced, Keio strives to become a paperless workplace by digitalizing its documents, installing combined FAX, scanner, printer, and copy machines with PDF-creating capabilities. ●Drainage Appropriate water management performed by regularly monitoring the water quality criteria of chemical wastewater generated through hospital medical examinations or equipment used in experiments.	decrease from 2009's 2,563.9t. The breakdown for each campus is as follows: Mita 360.5t Hiyoshi 275.7t Yagami 320.4t Shonan Fujisawa 189.3t Shinanomachi 1,175.1t Shiba-Kyoritsu 154.6t
Recycling	●Reuse Effective use of resources by reusing envelopes and printing on the reverse side of used paper. ●Recycle It is necessary to thoroughly sort waste first in order to recycle resources effectively. Raised the recycling rate by installing highly visible waste-sorting containers on all campuses and providing thorough sorting signs. Installed paper recycling boxes where student organizations recycle used paper products, such as unneeded copy paper, to improve paper recycling rates. Reexamined its sorting methods and placement of waste receptacles as a joint project with student organizations on Mita Campus. Special wastepaper collection receptacles installed since the 2006 academic year. Facilitated an environment able to recycle paper as recyclable waste by separating it from burnable waste. Significant improvement of recycling rate as a result.	The total amount of recycled waste was 1,301.7t for all campuses, an increase from 1,240.7t in 2009. The recycling rate rose to 52.6%. The breakdown for each campus is as follows: The recycling rate of total waste in parentheses. Mita 309.1t (85.7%) Hiyoshi 104.5t (37.9%) Yagami 243.8t (76.1%) Shonan Fujisawa 77.1t (40.7%) Shinanomachi 474.8t (40.4%) Shiba-Kyoritsu 92.3t (59.7%)

Research/IT facilities and sustainability			
Topic	Goals	Initiatives	Results
Users			
Building design aspects			
Architectural Design Guidelines and the Comprehensive Assessment System for Built Environment Efficiency	Sustainable Architecture	Design Guidelines	As a part of the 150th Anniversary Commemorative Project in 2008, Keio conducted construction and renovation of over 10 buildings. The Collaboration Complex "Kyosei-kan" and Independence Wing on Hiyoshi Campus inspected by the standard of CASBEE by Yokohama City and rated S-rank (the highest ranking) as eco-friendly buildings. Environmental impact is considered in each

(CASBEE)			building's design in an effort to construct sustainable architecture. Strive to keep the energy increase that accompanies facility expansion to a minimum while reducing energy consumption at already existing facilities.

Principle 2 – Campus wide Master Planning and Target Setting

Principle 2: To ensure long-term sustainable campus development, campus-wide master planning and target-setting should include environmental and social goals.

Sustainable campus development needs to rely on forward-looking planning processes that consider the campus as a whole, and not just individual buildings. These processes can include comprehensive master planning with goals for impact management (for example, limiting use of land and other natural resources and protecting ecosystems), responsible operation (for example encouraging environmentally compatible transport modes and efficiently managing urban flows), and social integration (ensuring user diversity, creating indoor and outdoor spaces for social exchange and shared learning, and supporting ease of access to commerce and services). Such integrated planning can profit from including users and neighbors, and can be strengthened by organization-wide target setting (for example greenhouse gas emission goals). Existing low-carbon lifestyles and practices within individual campuses that foster sustainability, such as easy access for pedestrians, grey water recycling and low levels of resource use and waste generation, need to be identified, expanded and disseminated widely.

Management Approach to Principle 2 Topics

Keio has consistently expanded its campuses while cutting energy usage, pursuing a policy of "green" and "growth" together. Keio has pursued environment-friendly development on each of its campuses for decades; when building its Shonan Fujisawa Campus, it dedicated 51% of the total campus area for conservation. Each campus pursues their own green agenda, transplanting trees, carrying out ecology and biodiversity surveys, conducting campus composting, nurturing rooftop gardens, and conducting student awareness activities such as Ecology Week, among a host of other environmental efforts.

Main initiatives and results

In addition to complying with strict national and prefectural CO2 reduction targets, Keio implements comprehensive campuswide environment conservation activities such as the "Hiyoshi Green Plan" on Hiyoshi Campus.

Overview of Keio's Principle 2 Goals

Topics	Goals and Initiatives		Results	
Priority topics (with units of measurement)	Objectives and targets (for reporting year, for the following year, and/or beyond)	Key Initiatives (in reporting year, and /or planned for the following and beyond)	Performance 2010	Performance 2011

Institution-wide carbon targets and related achievements				
CO2 Emissions			The total amount of emissions of energy sources was 530,000t of electricity and 150,000t of gas, for 100t per square meter. Mita 6,607 CO2-t Hiyoshi 11,868 CO2-t Yagami 11,003 CO2-t Shinanomachi 27,494 CO2-t Shonan Fujisawa 6,721 CO2-t Shiba-Kyoritsu 2,539 CO2-t Affiliated Schools 2,274 CO2-t	The total amount of emissions of energy sources was reduced drastically to 450,000t of electricity and 140,000t of gas, for 84t per square meter. Total floor space increased to 102.6% compared to the previous financial year, but total emissions were reduced to 86.4 % from the previous year for a total of 59,198 CO2-t for all campuses. The figures for each campus are as follows. *( ) are percentage figures from the previous year. Mita 5,941 CO2-t (89.9%) Hiyoshi 10,018 CO2-t (84.4%) Yagami 9,454 CO2-t (85.9%) Shinanomachi 24,072 CO2-t (87.6%) Shonan Fujisawa 5,615 CO2-t (83.5%) Shiba-Kyoritsu 2,245 CO2-t (88.4%)

				Affiliated Schools 1,853 CO2-t (81.5%)
Master Planning				
Topic	Goals	Initiatives	Results	
Energy Conservation Council	Set a target of 1% reduction of the energy consumption rate on each campus based on the figures for the 2009 academic year.	Implemented partial elevator service and delamping and modified the operating methods for air-conditioning and heating equipment. Additionally, old air-conditioning equipment and lighting fixtures are being replaced with highly-efficient equipment. Aiming to reduce energy use by installing motion sensors for lights in hallways and restrooms.	As a result of performing further energy reduction measures year-round in addition to upgrading to highly-efficient equipment, Keio was able to reach an approximate 17% reduction when compared with the 2009 base year.	
Land-use and biodiversity Landscaping impacts and biodiversity				
Hiyoshi Green Plan	Safe use of land considerate of the geography and water cycle, and the conservation, recovery, and utilization of biodiversity.	Over 1/3 of Hiyoshi Campus is a massive green space. Its diverse geography and abundant plant life is anticipated to be properly managed over a broad range of fields, such as the conservation of biodiversity, disaster prevention, amenity allocation, and	Main Results of Organizational Survey ・ Organization of basic information and creation of base map ・ Organization and survey of landslide disaster-related information ・ Organization and survey of plant life ・ Organization and survey of water cycle-related information ・ Organization and survey of biodiversity ・ Assessed the current state of	

		educational and research activities. In order to tackle these issues, Keio initiated surveys and conducted comprehensive consolidation of information, sharing the results throughout the university.	general management and future issues concerning the natural area ・ Organization of equipment, facility, and building information Coordinated the direction of basic plans and strategies based on the results of the above data collection and surveys.

Principle 3 – Integration of Facilities, Research, and Education

Principle 3: To align the organization's core mission with sustainable development, facilities, research, and education should be linked to create a "living laboratory" for sustainability.

On a sustainable campus, the built environment, operational systems, research, scholarship, and education are linked as a "living laboratory" for sustainability. Users (such as students, faculty, and staff) have access to research, teaching, and learning opportunities on connections between environmental, social, and economic issues. Campus sustainability programs have concrete goals and can bring together campus residents with external partners, such as industry, government, or organized civil society. Beyond exploring a sustainable future in general, such programs can address issues pertinent to research and higher education (such as environmental impacts of research facilities, participatory teaching, or research that transcends disciplines). Institutional commitments (such as a sustainability policy) and dedicated resources (such as a person or team in the administration focused on this task) contribute to success.

Management Approach to Principle 3 Topics

Keio implements public, hands-on educational programs and environmental awareness projects with the local community while enhancing its curricular activities. Moreover, it actively conducts research in cooperation with the home community, including joint research in collaboration with local governments to construct social infrastructure and environmental conservation activities abroad.

Main initiatives and results

Topics	Goals and Initiatives		Results
Priority topics (with units of measurement)	Objectives and targets (for reporting year, for the following year, and/or beyond)	Key Initiatives (in reporting year, and /or planned for the following and beyond)	Performance
Topical Integration			

List of Environment-related Courses (2008)			Undergraduate Faculties (Total: 103) ・ Faculty of Letters 1 ・ Faculty of Economics 17 ・ Faculty of Law 18 ・ Faculty of Business and Commerce8 ・ School of Medicine 2 ・ Faculty of Science and Technology 15 ・ Faculty of Policy Management / Environment and Information Studies 3 ・ Faculty of Policy Management 7 ・ Faculty of Environmental Information 22 ・ Faculty of Nursing and Medical Care 1 ・ Faculty of Pharmacy 9 Graduate Schools (Total: 84) ・ Graduate School of Economics 9 ・ Graduate School of Business and Commerce 5 ・ Graduate School of Science and Technology 12 ・ Graduate School of Media and Governance 32 ・ Graduate School of Pharmaceutical Sciences 3 ・ Graduate School of Business Administration 10 ・ Graduate School of System Design and Management 6 ・ Law School 7
Installation of course designing a low-carbon society in the Graduate School of Media and Governance.	Established in 2009 academic year		This program cultivates human resources capable of identifying real problems and finding practical solutions who possess specialized knowledge for responding to the expanding carbon credit market distribution in efforts toward constructing a low-carbon society, the most important task in preventing global warming in the transition to a sustainable society. Both

			Master's degree and Certificate (Proof of Course Completion) conferred upon completion.
Social Integration			
Fukuzawa Yukichi Kinen Bunmei Juku Global Environment Project Environmental Education Support Program Sponsored by the The Coca Cola Educational & Environmental Foundation	Keio invites successful individuals on the front lines of various fields to share as lecturers, holding a total of 21 lectures (tentative) over the course of three months for undergraduate and graduate students and working adults.	This program aims to cultivate environmental innovators who will design a vision for a new sustainable society, set up strategies to make that vision a reality, and take action to lead social change.	The aim of this program was to train human resources who can expand the chain reactions to promote necessary social change in order to construct a sustainable society. Courses stressed a process in which participants themselves think about a variety of problems from scratch, realize the true nature of the issues, and derive original solutions. It valued the earnest efforts of individuals who expressed vision and motivation without regard for their past experience or specialized knowledge of environmental issues, which generated a mutually inspiring "place of learning" between both working adults and students (Keio University/other universities) of diverse backgrounds. In particular, the following instructions were given: ・ Improve "environmental literacy" ・ Cultivate education as an "interpreter" ・ Foster a sense of responsibility as an "innovator"
Held "Environment Week 2012"	"Environment Week" held each June to think about environmental issues as a part of the festivities to welcome new	Implement various activities to create interest in the environment, such as clean-up activities between students and members of the community and	・ Clean-up activities on campus and in surrounding areas ・ Used paper collection ・ Using recyclable lunch boxes ・ Media Center exhibit, environmental awareness survey, Environment Week 2012 Report

	students.	panel discussions with environment conservation clubs and organizations.	・ Lecture: Hold a lecture presentation about electric cars and smart cities under the theme of renewable and natural energy after experiencing the Great East Japan Earthquake.
Research & Education projects on Laboratory/IT facilities and sustainability			
Multidisciplinary Environment Project - Shenyang/Chengdu Environment Activities	Research exchange project to deepen international perspectives through cultural exchange, historical issues, and Japan-China environmental issues.	10 Keio University students from 4 Faculties and 1 Graduate School and 35 students and researchers from Tohoku University participated with the support of the 150th Anniversary Commemorative Project Design the Future Fund.	(1) It aimed to deepen understanding of the "spirit of jitsugaku" (the spirit of science) through lectures by joint researchers concerning the environment, Sino-Japanese history, and contemporary issues and team debates according to different approaches to global environmental issues. (2) Students were able to gain an international outlook on various transnational environmental issues, historical issues, and cultural exchange through exchange with both Japanese and Chinese researchers and young people of their same generation. (3) Due to the dissolution of the Fukuzawa Ikurinkai Foundation, which had focused on domestic reforestation programs, Keio is now responsible for the management and maintenance of their projects. There exists a need to create organic links with other afforestation programs abroad. Through collaboration and cooperation with the Office of Student Services and the International Center, Keio believes that it is possible to spread this program to more undergraduate and graduate students, that it may further boost and extend Keio's environmental research and

			education, including both students and alumni. (4) The forestation project in Shenyang aims for CDM certification since prospects have been decided for afforestation during the last year of the Kyoto Protocol (2012).
Green Society ICT Life Infrastructure	Consolidate information related to the energy and climate of a region and local residents' health, medicine, and agriculture to construct an informational framework which conducts optimum energy management.	Attention paid to residents' standard of living and energy issues in regional communities and conduct analyses and research upon consolidating actual information from two municipalities (Kurihara City, Miyagi, and Okutama Town, Tokyo).	Some of the major activities conducted up until now are listed below: mapped 2km municipality climate mesh data by downscaling projected future data based on global climate models; constructed energy monitoring system based on a new way of thinking about various facilities as clusters (Kurihara City); conducted inventory survey of residents 65 years of age and above concerning health and social capital (Kurihara City); and implemented teleconsultation, or virtual medical consultation (Kurihara City/Okutama Town). Successful results also shown in agriculture and early restoration of communications in times of disaster. During the Great East Japan Earthquake, Kurihara City also suffered damage. Using these experiences in a positive manner, Keio is setting further research targets and promoting activities which improve social vulnerability and the power of community.