

Sapporo sustainability declaration

Recognising the expanding role of scientists and universities, the Presidents, Rectors, Chancellors, Vice-Chancellors and representatives (hereinafter referred to as "Presidents") of 27 of the leading educational and research institutions in the G8 member nations held a G8 University Summit from June 29 to July 1, 2008 in Sapporo, Hokkaido, Japan, prior to the G8 Hokkaido Toyako Summit. The United Nations University and seven universities from six major non-G8 member nations were invited to participate. The subject of discussion was the responsibility of universities to contribute toward the attainment of sustainability, and the specific actions they must undertake to fulfil that responsibility.

The Presidents of the attending universities at the G8 University Summit hope that universities all over the world will endorse this declaration and take actions appropriate to their respective countries and regions.

I. Joint Affirmations and Actions for Sustainability

We, Presidents of the attending universities at the G8 University Summit, jointly affirm our recognition of the following principles concerning the role of universities in global efforts to attain sustainability, which will lead to our actions, as appropriate.

1. The importance of sustainability.

Sustainability at the human, social and global levels is one of the most important ideas of the 21st century. A series of conferences and declarations have served as important milestones on the path toward global sustainability (see Appendix, "Background of the G8 University Summit").

2. Sustainability issues have become urgent political concerns.

Sustainability problems including climate change, previously regarded as primarily a scientific issue, have become urgent political concerns. In addition to urgent social issues such as poverty alleviation and development, climate change has a wide range of interrelated impacts on human, social and global sustainability. The global environmental crisis we face today is unlike any of the problems humanity has surmounted in its history: it is more far-reaching, more complex, and attended by a high degree of uncertainty. Moreover, we have little time left to resolve this crisis.

3. The responsibility of universities.

All universities have an important role in problem-solving to bequeath a sustainable world to future generations. Through their research, universities are expected to provide timely solutions to these problems and to closely coordinate with policy-makers if these solutions are to be promptly and appropriately implemented. It is more important to note, however, that the role played by universities is changing and becoming increasingly critical, since universities, being neutral and objective, are best situated to inform political and social change toward a sustainable society.

Collaboration with a range of stakeholders including civil society and the private sector is also important to ensure such solutions are practically applicable and appropriate to build a sustainable society. Universities must work together in the areas of sustainability research and policy analysis toward this end. At the same time, the academic objectivity of universities is a key strength which should not be sacrificed. The leading research universities of the G8 member nations have a particular role to play by demonstrating leadership in fulfilling these responsibilities.

4. The need to restructure scientific knowledge.

Sustainability is a broad area that embraces a complex diversity of interrelated factors ranging from the natural environment to socioeconomic systems. Global sustainability can be achieved only through a comprehensive approach that addresses socioeconomic as well as environmental issues.

The G8 summits, the United Nations and other international organizations have launched a number of initiatives addressing various aspects of sustainability, such as a low-carbon society, a resource-circulating society, and a nature-harmonious society. However, the development of a truly comprehensive vision of a sustainable society will require new scientific knowledge, restructured to reverse past tendencies toward stratification and fragmentation in research, and to foster an integrated approach to solving problems by accelerating inter-disciplinary research activities.

5. The need for a network of networks.

To restructure scientific knowledge in this manner, a unifying framework is necessary, facilitating this integrated problem-solving approach among research disciplines. Essential to such a framework is the creation of a "network of networks" (NNs) that links the various discipline-specific research networks already in place, thereby utilizing and augmenting their respective strengths and knowledge bases.

In this network of networks, interdisciplinary cooperation among universities in different regions can be effectively enhanced through initiatives such as student exchange, faculty exchange and joint research projects.

6. The need for "knowledge innovation."

Achieving sustainability requires social change, which is predicated on changing public awareness. Universities and their researchers have a responsibility to articulate and disseminate new sustainability-related scientific knowledge and information, including its attendant uncertainty, to society at large.

Through dialogue between scientists and other stakeholders, including citizens and policy makers, new knowledge can be a catalyst for social innovation and effective policymaking. Conversely, this dialogue can spur further innovations in knowledge that help society progress along the path to sustainability. This interactive "knowledge innovation" dynamic between knowledge and society must be actively promoted if sustainability is to be achieved.

7. The role of higher education for sustainability

Universities have a critical role to play in educating future generations, disseminating information about sustainability, and particularly by training leaders with the skills to solve regional and local problems from a global and interdisciplinary perspective. Especially crucial is the fostering of human resources to work toward sustainability in the developing nations that bear the brunt of global environmental problems. A network of networks can also provide opportunities for collaborating universities to develop and improve higher education capacity in their respective nations and regions.

8. The function of the university campus as an experimental model.

Another potential role for universities in the effort to attain sustainability is the use of their campuses as models for a sustainable society, based on interactions with various stakeholders in society through the academic research and education processes.

Universities can provide venues in which to test new sustainability-relevant knowledge in a social context. Activities already being undertaken by participating universities, such as the development of "sustainable" or "green" campuses, and the issuing of action statements in response to climate change, are examples of how to showcase a sustainable society.

By serving as test models for society at large, universities help foster in their students the attitudes and skills necessary to achieve a sustainable society in the future. Thus the sustainable campus can serve as both an experiment in progress and an ideal tool for educating future generations.

Each of the universities participating in the G8 University Summit plays a prominent role in its part of the world. Models developed by these universities, reflecting each region's economic, social and cultural conditions, together can provide the components for a global model that incorporates regional diversity.

II. Our Commitments

Based on the points we have jointly affirmed above, we, the Presidents of the universities attending the G8 University Summit, declare the following commitments:

- a. In recognition of the need for scientific knowledge to inform policies and social change in the 21st century, we will strive to fulfil our developing responsibility to be a driving force for policy, society and academia to evolve together toward global sustainability.
- b. We pledge to contribute to the implementation of an action program for construction of a network of networks (NNs) capable of addressing the broad and complex range of sustainability issues, through such activities as holding research network conferences and developing consensus on the objectives and content of the NNs.
- c. In operating the NNs as a platform for science and public policy innovation, we will make it a priority to improve cooperation with universities and research institutes in developing nations through joint research and education programs, and to provide support as needed.
- d. We will work actively to develop the necessary organizational and operational frameworks and funding for the aforementioned purposes.
- e. We will work with our surrounding communities to develop social models for sustainability, with our campuses serving as experimental venues.
- f. We will call upon other universities to adopt and act upon the above commitments.

III. Proposal to the G8 Leaders Summit 2008

As representatives of academic institutions engaged in research and education on sustainability, we, the Presidents of the universities of the G8 member nations in attendance at the G8 University Summit, supported by the Presidents of universities attending from non-G8 member nations and the United Nations University, hereby suggest that the national leaders in attendance at the G8 Hokkaido Toyako Summit take the following actions as part of their response to climate change and other urgent global-scale problems:

- a. Recognize the efforts undertaken by universities toward global sustainability, and find concrete means to support endeavors to foster knowledge innovation and to assist the creation of a network of networks as a platform for science and public policy innovation.
- b. Pursue closer partnerships with universities in developing and implementing sustainability-related policies.
- c. Acquire an accurate understanding of the scientific knowledge relevant to global sustainability issues and its application to an integrated approach to such goals as a low-carbon society, a resource-circulating society, and a nature-harmonious society; disseminate this knowledge to the citizens of each nation; and support problem-solving policies based in science.
- d. In order to effectively tackle climate change, one of the priority topics of discussion at the G8 Hokkaido Toyako Summit, exercise the leadership necessary to prompt the international community to adopt an effective framework and implement scientifically appropriate countermeasures.
- e. Recognizing that global issues such as the rapidly worsening food and energy crises are interconnected, and that they will be exacerbated by continued climate change, cooperate with all other nations in the prompt implementation of policies that address these problems comprehensively in accordance with the knowledge gained from scientific research

We, the undersigned Presidents, Rectors, Chancellors, Vice-Chancellors and representatives of universities, do hereby recognize the key role universities must play in efforts to attain global sustainability, affirm the commitments contained herein, and address the proposals for action to the G8 leaders and the international community.

(signed)	(signed)
Stephen J. Toope, President and Vice-Chancellor The University of British Columbia	Indira V. Samarasekera President and Vice-Chancellor University of Alberta
(signed)	(signed)
Xavier Michel, President Ecole Polytechnique	Georges Molinié, President Université Paris-Sorbonne (Paris IV)
(signed)	(signed)
Bernd Huber, President LMU Munich	Burkhard Rauhut, Rector RWTH Aachen University
(signed)	(signed)
Francesco Profumo, Rector Politecnico di Torino	Guido Chelazzi, Vice-Rector Università degli Studi di Firenze
(signed)	(signed)
Eiji Hatta, President Doshisha University	Takehiko Sugiyama, President Hitotsubashi University
(signed)	(signed)
Hiroshi Saeki, President Hokkaido University	Yuichiro Anzai, President Keio University
(signed)	(signed)
Kazuo Oike, President Kyoto University	Tisato Kajiyama, President Kyushu University

(signed)	(signed)
Shin-ichi Hirano, President Nagoya University	Kiyokazu Washida, President Osaka University
(signed)	(signed)
Kiyofumi Kawaguchi, President Ritsumeikan University	Hiroshi Komiyama, President The University of Tokyo
(signed)	(signed)
Akihisa Inoue, President Tohoku University	Kenichi Iga, President Tokyo Institute of Technology
(signed)	(signed)
Jun-ichi Nishizawa, President Tokyo Metropolitan University	Katsuhiko Shirai, President Waseda University
(signed)	
Vladimir Kurilov, President Far Eastern National University	(signed)
(signed)	(signed)
Mary Ritter, Pro-Rector Imperial College London	Peter Guthrie, Director, Centre of Engineering for Sustainable Development The University of Cambridge
(signed)	(signed)
Gene D. Block, Chancellor University of California, Los Angeles	Donald Filer Director, the Office of International Affairs Yale University

We, the undersigned Presidents, Rectors, Chancellors, Vice-Chancellors and representatives of universities, do hereby recognize the key role universities must play in efforts to attain global sustainability, affirm the commitments contained herein and support the proposals made by universities from G8 member nations to G8 leaders and the international community.

(signed)	(signed)
Ian Chubb, Vice-Chancellor and President The Australian National University	Carlos Clemente Cerri, Professor Center of Nuclear Energy in Agriculture University of São Paulo
(signed)	(signed)
Jianhua Lin Executive Vice-President and Provost Peking University	Weihe Xie, Vice President Tsinghua University, Beijing
(signed)	(signed)
Kripa Shanker, Deputy Director Indian Institute of Technology, Kanpur	Jang-Moo Lee, President Seoul National University
(signed)	(signed)
Ihron L Rensburg Vice-Chancellor and Principal University of Johannesburg	Konrad Osterwalder, Rector United Nations University

Appendix

Background of the G8 University Summit

“Sustainable development” was seen as a central guiding principle for international society in the 1987 Report “Our Common Future” by the World Commission on Environment and Development (WCED), and

since then, the question of how it can be achieved has been the subject of intense and broad-ranging debate at a series of summit-level conferences, including the following:

- The Rio Declaration on Environment and Development and the Agenda 21 program adopted at the United Nations Conference on Environment and Development (UNCED) in Rio de Janeiro in 1992.
- The Millennium Development Goals (MDG) drawn from the actions and targets contained in the Millennium Declaration that was adopted during the UN Millennium Summit in 2000.
- The Johannesburg Declaration on Sustainable Development and the accompanying Plan of Implementation adopted at the World Summit on Sustainable Development in Johannesburg in 2002.

The critical role of research and education in efforts toward achieving sustainability was articulated in 1990 by the Talloires Declaration of University Presidents for a Sustainable Future, and the role of universities in pursuing sustainable development is cited in Chapter 36 (Promoting Education, Public Awareness and Training) of Agenda 21.

Since then discussions regarding the contribution of universities to sustainable development have continued at a range of conferences, and growing numbers of university leaders throughout the world have committed their institutions to helping solve the urgent problems that threaten humanity and the environment. Notable examples include the Kyoto Declaration on Sustainable Development by the International Association of Universities (IAU) in 1993, the Luneburg Declaration by the Global Higher Education for Sustainability Partnership (GHESP) in 2001, and the Ubuntu Declaration on Education and Science and Technology for Sustainable Development by several educational and scientific organizations, including the United Nations University, in 2002. Also in 2002, the U.N. General Assembly designated 2005-2014 as the Decade of Education for Sustainable Development (DESD).

Discussions at the 2006 G8 Summit in St. Petersburg, Russia, further stressed the need for concrete measures to foster an innovative society, that would include programs to develop individual creativity.

The conferences and declarations cited above have served as important milestones on the path toward global sustainability. Meanwhile, the distance between science and public policy has been rapidly shrinking. While 20 years ago climate change was mainly a concern of climate scientists, it has been the subject of international agreements such as the United Nations Framework Convention on Climate Change (1992) and the Kyoto Protocol (1997). Leaders at the 2007 G8 Summit in Heiligendamm, Germany committed to prompt robust measures in response to the problem of climate change.

This demonstrates the extent to which climate change, previously regarded as primarily a scientific issue, had become an urgent political concern. With this as background, science is becoming more important for human society. The Intergovernmental Panel on Climate Change (IPCC) offers a prime example of the unprecedented role science must play in our efforts to understand and solve these problems. One ramification of this role is that research institutions and universities must be ready to provide not only education on issues of sustainability but also the scientific knowledge required to make appropriate and effective public policy.