

# The Mid- to Long-Term Global Vision for Challenges against Global Warming

27th October 2009 (Tuesday)

At Conference Room, 9th Floor Shin-Marunouchi Building

Convened by  
The Canon Institute for Global Studies (CIGS)



# Messages

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The Canon Institute for Global Studies (“CIGS”) is inaugurated in December last year. It has gone into operation in April this year focusing on the following three key research areas: macroeconomics; natural resources, energy and the environment; and foreign affairs and national security. The CIGS will conduct precise analysis of Japan’s present status in the world taking into consideration what the Japan’s future should be in an era of globalization, and aims to advance strategic policy proposals and to disseminate useful information. The CIGS also aims to establish a global network of knowledge.

Today, we organize our first international symposium where global issues of mitigation of global warming and achievement of low carbon society are discussed. Inviting leading scientists from Japan, China, the US and Europe, we would like to find out and share a scientifically-supported common vision.

The CIGS will carry out its activities in various research areas aiming to ensure that the scientific knowledge, in which policy proposals should be grounded, can be shared on a global basis. We look forward to your kind support.

*President Toshihiko Fukui*



Mitigation of global warming will require a global scale long-term effort. The world must find a shared process to prevent global warming based on scientific understanding that is fair as well as technically and economically feasible. Prior to the United Nations Climate Change Conference (UNFCCC/COP 15) in Copenhagen in December, the Canon Institute for Global Studies will hold its first international symposium where experts in climate change science, energy technology and policy from Japan, China, Europe and America will share the latest scientific research results.

Participants in the symposium will discuss greenhouse gas (GHG) emission scenarios and targeted levels for global mean temperatures rise. Participants will also exchange opinions on GHG reductions rates for the mid- to long-term as well as the low carbon energy technologies that will be required to achieve our future low carbon society. Based on a shared common long-term vision for achieving the low carbon society, the participants will discuss the roles to be played by developed and developing countries in possible frameworks for future international cooperation.

*Member of the Board/Research Director Tetsuo Yuhara*

# Program

<p>Opening remarks 13:00 – 13:15</p>	<p>Toshihiko Fukui, President, The Canon Institute for Global Studies</p>
<p>&lt;Part 1&gt; Keynote speeches 13:15 – 14:30</p>	<p>Latest research results on climate projections and greenhouse gas (GHG) emission scenarios for low carbon societies will be reported. Future possibilities for GHG reduction and long-term energy supply and demand in countries and regions will be introduced. Proposals for future international cooperation systems to address global warming will be discussed.</p> <p>(1)“UKCCC: Emission Scenarios and Targets” Sir Brian Hoskins, Director, the Grantham Institute for Climate Change at Imperial College London</p> <p>(2)“Stabilization of the CO2 concentration via zero-emission in the next century - Possibility of new emission pathway to stable climate –” Taroh Matsuno, Professor Emeritus, the University of Tokyo “Policy implication of Z520, Z650 emission pathways” Koki Maruyama, Guest Professor, the University of Tokyo</p> <p style="text-align: center;">15 minutes break</p> <p>Keynote speeches 14:45– 17:00</p> <p>(3)“China’s approach to mitigate global warming” Zhou Dadi, Research Professor/Formal Director-General, Energy Research Institute, National Development and Reform Commission</p> <p>(4)“Scenarios for GHG reduction and visions for sustainable energy futures” Michael B. McElroy, Gilbert Butler Professor of Environmental Sciences, Harvard University</p> <p>(5)“EU progress in reducing GHG emissions” William C. Ramsay, Senior Fellow, the French Institute of International Relations</p> <p>(6)“Mid-term and long-term Japanese vision – GHG emission reduction scenario and the role of Japan” Tetsuo Yuhara, Research Director, CIGS</p>
<p>15 minutes break</p>	
<p>&lt;Part 2&gt; Panel Discussion and Q&amp;A 17:15 – 19:00</p>	<p>On the basis of the scientific understanding of climate change, the panelists will discuss temperature rise targets, GHG reduction scenarios, technologies and cost effective approaches for achieving the low carbon society. The roles for developed and developing countries, international cooperation, and a common global vision will be explored.</p> <p>Panelists: Xu Huaqing, Director / Research Professor, Center for Energy, Environment and Climate Change Research, Energy Research Institute, National Development and Reform Commission Michael B. McElroy, Gilbert Butler Professor of Environmental Sciences, Harvard University William C. Ramsay, Senior Fellow, the French Institute of International Relations Tetsushige Nishio, Special Consultant to the Minister of the Environment (former Administrative Vice-Minister) Mitsudo Urano, Chairman, Committee on Global Environmental Issues, Keizai Doyukai (Chairman, Nichirei Corp.) Koki Maruyama, Guest Professor, the University of Tokyo</p> <p>Moderator: Tetsuo Yuhara, Research Director, CIGS Nami Kitamura, Project Associate Professor, the University of Tokyo</p>
<p>Reception 19:00-20:00</p>	<p>9th Floor Shin-Marunouchi Building</p>

Note) Japanese, English and Japanese-Chinese simultaneous translation will be provided.

# Biography of Keynote Speakers & Panelists

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## **Sir Brian HOSKINS**

### **Director, The Grantham Institute for Climate Change at Imperial College**

Sir Brian Hoskins studied mathematics at Cambridge. After 2 years research in the USA he moved to the University of Reading where he became Professor of Meteorology and Head of Department and then Royal Society Research Professor. He now shares his time between with Imperial College London where he is Director of the new Grantham Institute for Climate Change. His research is in the understanding of weather and climate. His international roles have included vice-chair of the Joint Scientific Committee for the World Climate Research Programme and President of the International Association of Meteorology and Atmospheric Sciences, and he is currently a member of the UK Committee on Climate Change. He is a member of the science academies of the UK, USA, China and Europe and his awards include the top prizes of the UK and US Meteorological Societies and honorary DScs from the Universities of Bristol and East Anglia. He was knighted in 2007 for his services to the environment.

## **Taroh MATSUNO**

### **Professor Emeritus, the University of Tokyo**

Dr. Matsuno is a meteorologist and has taught at the Kyushu, Tokyo and Hokkaido Universities. He is a graduate of the University of Tokyo and earned Sc.D. degree from the university in 1966. His research areas include geophysical fluid dynamics and climate dynamics. When he was a professor at the University of Tokyo, he worked for the promotion of climate modeling studies in Japan's university community to establish the Center for Climate System Research (CCSR) in the University, 1991, where he served as the Director until he moved to the Hokkaido University in 1994. He retired from professor's position in March 1998 and then served as the Director-General of the Frontier Research Center for Global Change, Japan Agency for Marine-Earth Science and Technology (JAMSTEC) until March 2005. Currently he is working as the Principal Scientist at the Global Warming Research Project for IPCC AR5 in JAMSTEC. He participated in activities of the Fourth Assessment Report (AR4) by the Intergovernmental Panel on Climate Change (IPCC, WG1) as a drafting author of the Technical Summary and the Summary for Policymakers and member of the Core Writing Team of the Synthesis Report for the period 2003-2007.

## **Michael B. MCELROY**

### **Gilbert Butler Professor of Environmental Sciences, Harvard University**

Michael B. McElroy as appointed as the Abbott Lawrence Rotch Professor of Atmospheric Sciences at Harvard University in 1970. At Harvard, he served as Director of Center for Earth and Planetary Physics (1975-1978), as founding Chair of the Department of Earth and Planetary Sciences (1986-2000), as Chair of the University-wide Committee on the Environment (1991-2001), as first Director of the Center for the Environment (2001-2004), and more recently as the Gilbert Butler Professor of Environmental Sciences in 1997.

He is the author of more than 250 technical papers and several books covering topics ranging from studies of planetary atmospheres, to stratospheric ozone, to the chemistry of the troposphere, to changes in biogeochemical cycles and factors underlying both natural and human-induced changes in global climate. A recently completed book addresses the challenge posed by our need to switch to a low carbon energy future in order to meet the challenge of global climate change.

## **William C. RAMSAY**

**Senior Fellow, the French Institute of International Relations / Director of IFRI Energy Program**

After obtaining a bachelor's degree in Michigan State University and a master's degree in Stanford University, Ambassador Ramsay was assigned various domestic and foreign diplomatic positions in the US Department of State. Since the mid 1970s, he has worked in the field of energy policy and served as US Ambassador to the Republic of Congo from 1993-1996. He left the US State Department in 1998 as Deputy Assistant Secretary of State for Energy, Commodities Economic Sanctions, to become Deputy Executive Director of International Energy Agency (IEA) until 2008.

## **Dadi ZHOU**

**Research Professor / Former Director-General, Energy Research Institute, National Development and Reform Commission**

Zhou Dadi, graduated in Department of Engineering Physics, Tsinghua University in 1970, and got Master degree in Department of Environmental Engineering, Tsinghua University. He is the director general of Energy Research Institute before, as Research Professor. He had experience to work in ERI for 22 years, with focus on energy economy and energy system analysis. He also did outstanding work on energy import export policies, energy price reform, energy efficiency, climate change. Now he is member of the Expert Committee of Energy Field of the 863 Program of China, member of the Scientific and Technical Advisory Panel (STAP) of Global Environment Facility; deputy director, Executive Office of the China Green Lights Program, chief scientist of the Expert Team of China for Work Group III of Climate Change, Chairman of the Board of Directors of the Chinese Energy Economics, Chinese Society of Energy Research, Executive Member of the Board of Directors of the Chinese Society of Energy Research, Board member of the Chinese Society of Sustainable Development, Board member of the Chinese Society of Input/Output Research, Lead Author of the Third Assessment Report, IPCC WG III. He got award of OECD Climate Technology Initiative (CTI) in 2000. He participated more than 30 key research projects and published more than 50 papers and books

## **Tetsushige NISHIO**

**Special Consultant to the Minister of the Environment**

Tetsushige Nishio joined the Environment Agency in 1972 after graduating from the University of Tokyo. He was assigned as Director-General, Environmental Health Department, the Environment Agency in July 1999. After the Agency was reorganized into the Ministry of the Environment in 2001, he served in various positions in the Ministry, including Director-General, Nature Conservation Bureau (January to June 2001), Director-General, Environmental Management Bureau (July 2001 to June 2004), Deputy Vice-Minister of the Environment (July 2004 to August 2006) and Director-General, Environmental Policy Bureau (September 2006 to June 2008). He assumed the position of the Vice-Minister of the Environment in July 2008 and continued till June 2009. He is in a current position since July 2009.

## **Mitsudo URANO**

**Chairman, Committee on Global Environmental Issues, Keizai Doyukai / Chairman, Nichirei Corp.**

After graduating from Yokohama City University in 1971, Mitsudo Urano joined Nippon Reizo Co. Ltd. (currently called Nichirei Corp.) After serving in various positions including General Manager of Management Planning Division, he was assigned as President in 2001. From 2007 to the date, he is Chairman of the Board. He joined Keizai Doyukai (Japan Association of Corporate Executives) in 1999. Having undertaken various position such as Chairman of Committee on Educational Issues, Chairman of Committee on the Invigoration of Leading Medium-Sized Enterprises and SMEs, he is assigned as Chairman of Committee on Global Environmental Issues since 2008.



## **Huaqing XU**

**Director / Research Professor, Center for Energy, Environment and Climate Change Research, Energy Research Institute, National Development and Reform Commission**

His research focuses on strategies and policies related to energy environment and climate change. He has been involved in numerous research projects as team leader, including “China’s National Climate Change Program”, “Framework for China National Energy Strategy Study”.

He was a Lead Author for the TAR and Review Editor for the AR4 of the IPCC. He was also the National Project Coordinator for “Enabling China to Prepare Its Initial National Communication”, supported by GEF. Since 2000, as a delegate of the Government of China, he has participated in the COPs of the UNFCCC.

He studied thermal energy engineering at Harbin Institute of Technology and environmental engineering at Tsinghua University.

## **Koki MARUYAMA**

**Guest Professor, Collaborative Research Center for Energy Engineering (CEE), Institute of Industrial Science (IIS), the University of Tokyo / Executive Research Scientist, Central Research Institute in Electric Power Industry (CRIEPI).**

B.A. in 1976, Ph.D. in 1986, the University of Tokyo. Work experience in CRIEPI: In 1976, researcher of regional environmental issues associated with power plants. In 1994, project leader of international research project for climate change projection with NCAR and LANL in U.S. A. In 2007, general project director of global warming mitigation and adaptation. Part-time lectures of the University of Tokyo, Hiroshima University, Nippon University, Tsukuba University etc. IPCC WGI reviewer.

## **Tetsuo YUHARA**

**Research Director, CIGS**

Tetsuo Yuhara joined Mitsubishi Heavy Industries, Ltd. in 1970 after completing the master course at Graduate School of Engineering of the University of Tokyo. He was assigned to various positions in Mitsubishi Heavy Industry, Ltd. including Deputy General Manager of Nagasaki R&D Center and Head of Yokohama R&D Center. He joined the University of Tokyo in 2002 as Professor in charge of Environmental & Ocean Engineering at Graduate School of Engineering and concurrently worked for Department of System Innovations of Undergraduate Faculty of Technology. He retired in March 2007 but continued research activities being assigned as Project Professor of the Integrated Research System for Sustainable Science (IR3R) of the University of Tokyo. Since April 2009 to the date, he is one of the member of the Board and Research Director of the Canon Institute for Global Studies.

## **Nami KITAMURA**

**Project Associate Professor (Energy Sustainability) of Integrated Research System for Sustainability Science (IR3S), the University of Tokyo / General Manager, New Business Promotion Division, Showa Shell Sekiyu K.K.**

Nami Kitamura is a Project Associate Professor (Energy Sustainability) of Integrated Research System for Sustainability Science (IR3S), the University of Tokyo since February 2007 as her external assignments of Showa Shell Sekiyu K.K., which is one of the affiliated companies of Royal Dutch Shell. Her work promotes academic-industrial alliance to contribute to building sustainable society and establish sustainability science from energy point of view. She has another post as a General Manager of New Business Promotion Division of Showa Shell Sekiyu K.K. since April 2009. She received Master of Science in Harvard School of Public Health in 1996 and Master of Engineering in Tokyo Institute of Technology in 1990.