Chair's Summary

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1. Introduction

The Global Environmental Action (GEA) International Conference 2015 entitled "Policies and Measures to Cope with Climate Change and towards a Sustainable Society" was held in Tokyo, Japan on 15 and 16 October, 2015.

The Conference was attended by Their Imperial Highnesses the Crown Prince and Crown Princess, and opened with the address by Mr. Juro Saito, GEA Chairman. H. I. H. the Crown Prince gave a congratulatory speech, followed by H. E. Mr. Shinzo Abe, Prime Minister of Japan. Dr. Wakako Hironaka, the Director General of GEA, presided over the entire Conference as its Chair.

The Conference was organised by the GEA, co-organised by the Government of Japan (Ministry of Foreign Affairs; Ministry of Education, Culture, Sports, Science and Technology; Ministry of Agriculture, Forestry and Fisheries; Ministry of Economy, Trade and Industry; Ministry of Land, Infrastructure, Transport and Tourism; and Ministry of the Environment). The United Nations University Institute for the Advanced Study of Sustainability (UNU-IAS) also joined as a co-organizer.

The objective of the Conference was to make clear the current state of crisis in which the world finds itself and to disseminate the proposals put forward at the GEA conference to the world.

2. Opening of the Conference

GEA Chairman, Mr. Juro Saito, gave his opening speech. He pointed out that with the crisis of climate change being imminent, we need to prevent crisis occurring in the global environment, which is essential for human survival. He emphasised the need to gather human wisdom and take concrete actions. He stated that he wanted to raise awareness on the need for action internationally through the two-day conference.

H. I. H. the Crown Prince then gave his address. He stated that we are all being asked to act in order to ensure the achievement of the Rio+20 agreement and "Transforming our world: the 2030 Agenda for Sustainable Development," which was adopted at the UN Summit in September this year. He hoped that concrete measures in every country, every sector and at every level would progress in order to build sustainable societies as a result of the conference.

Prime Minister, Mr. Shinzo Abe, then gave his address. He began by explaining the background of the foundation of the GEA, which stemmed from an international conference held under the leadership of the late Prime Minister, Mr. Noboru Takeshita, a quarter of a century ago and which gathered world leaders in Tokyo with the aim to achieve success at the Earth Summit in Rio de Janeiro. He then touched upon the implementation of the 2030 Agenda for Sustainable Development and emphasised that addressing climate change was inevitable. As regards the 21st Conference of the Parties (COP21) to the United Nations Framework Convention on Climate Change (UNFCCC), he stated in addition to active contribution to international negotiations, there has been quite substantive action on domestic

measures and extensive assistance for developing countries. In particular, Japan submitted its Intended Nationally Determined Contributions (INDCs) to the Secretariat of UNFCCC, in which the country committed to reduce greenhouse gas (GHG) emissions by 26% by 2030 compared to 2013 (25.4% reduction compared to 2005), which was a substantive compilation of measures addressing climate change. Furthermore, next year, Japan will be the chair of the G7 conference and would like to have frank discussions on global challenges with world leaders at Ise-Shima, as well as to disseminate the beauty of the natural environment of the region to the world.

Mr. Achim Steiner, Executive Director, United Nations Environment Programme (UNEP) gave a keynote speech and pointed out that the year 2015 was a special year for the conservation of the environment for every country with the UN Summit on 2030 Agenda and COP21 being held. Looking back on the experience of the Vienna Convention for the Protection of the Ozone Layer and the Montreal Protocol on Substances that Deplete the Ozone Layer, which UNEP drafted among others, he stated that progress in science led to the discovery of the phenomenon of ozone depletion, and technology such as the development of alternative substance led to an international agreement on commitments. He pointed out the importance of the role that science played. He also pointed out sustainable development could be a fundamental driver to substantively transform societies in which we live and for that it required partnerships with a number of actors. Furthermore, he emphasised the importance of considering financial aspects and introduced various related activities of UNEP. Finally referring to COP21 once again and amid heightened awareness in each country for decarbonization as each country submitted its INDCs, he stated the need to make further efforts to de-carbonize and that he would explore the role of UNEP to that end.

3. Thematic Sessions

In the thematic sessions, the session chair of each session steered discussions based on the lead presentations in accordance with the Programme of the Conference. Presentations and general discussions were summarised as follows:

(1) Session 1: Towards a New International Framework on Climate Change

–Framework for the post 2020 period, Clarity and transparency of the INDCs, Assessing the INDCs submitted and Contributions to COP21/Paris 2015–

Session Chair:
Itaru Yasui
Honorary Advisor, National Institute of Technology and Evaluation (NITE)

Lead-off Speakers:
François Gemenne
Executive Director, Politics of the Earth Programme, Sciences-Po
Yukari Takamura
Professor, Graduate School of Environmental Studies, Nagoya University

Long-term global goal and the nature of the issue of climate change

- Considering the devastating impact of climate change if the global average temperature increases above 2 degrees Celsius (2°C) above pre-industrial levels, achieving the 2°C goal is essential. It is necessary to send a clear message that this long-term goal is vital.
- Depletion of fossil fuels was the concern in the past. Now the risk is not about depletion but the increase of GHG emissions caused by the use of fossil fuels. Climate change is no longer a simple environmental issue but a fundamental challenge to humanity which relates to the issue of justice and equity.
- According to the fifth assessment report of the Intergovernmental Panel on Climate Change (IPCC), the 2°C goal requires global GHG emissions reduction of 40% to 70% by 2050 and zero or negative emissions by the end of this century. The aggregated effects of INDCs submitted by the Parties to the UNFCCC are not enough to meet the 2°C goal.
- Japan, in its INDC, committed to reduce its GHG emissions by 26% by 2030 compared to 2013 (25.4% reduction compared to 2005). Japan needs to increase its effort in an unimaginable way to get on track to meet its long term goal of 80% reduction by 2050.

International negotiations on climate change and expectation of COP21

- Climate change negotiations have several problems including that: they are isolated from other negotiations such as on development; they are also isolated from measures and actions on the ground; they lack a sense of urgency, which leads to a delay of negotiations; they lack a sense of international cooperation; and, representation of the problem varies considerably and is truly a political matter.
- Considering the current situation, it is essential to adopt a meaningful post-2020 climate regime at COP21 to the UNFCCC in Paris. INDCs submitted from approximately 150 countries are an important and positive step towards the success of COP21.
- For the Paris Agreement, the following points are emerging and need consideration: anchoring a long-term global goal; a process to ensure increasing ambition in the future; legal liability; issues related to development such as finance, adaptation, and loss and damage.
- COP21 is not a goal but a starting point for global long-term efforts towards a decarbonization by the end of the century. A good start at Paris is extremely important.

Roles and actions of all actors

- In order to fill the gap to meet the 2°C goal, local governments and businesses have an increasingly important role to play. Recognising the measures and actions taken by such non-state actors is expected to be one of the important outcomes of COP21.
- Dialogue between policy and science is the key to addressing climate change, and therefore, inputs from science to policy makers are crucial. Citizens will be the centre of action towards low-carbon transformation. Our responsibility is to correctly convey what is being discussed and agreed through the course of international negotiations on climate change.

Concrete measures and policies towards decarbonization

- Innovation is one of the keys to achieving decarbonization over the longer term. Not only the technological aspect but also innovation of the social system is important.

- Decarbonization through introducing renewable energy and promoting energy efficiency is especially beneficial for Japan which has leading technologies in these areas and imports most of its energy resources.
- Noting that introduction of national emission trading schemes (ETS) is becoming a trend as seen in Korea and China, Japan should consider introducing a national ETS. It is important to take into consideration experiences from existing initiatives such as the EU-ETS and regional level ETS in the US and Canada, as well as other policy tools such as carbon tax.
- After the nuclear power plant accident in Fukushima, nuclear power has been a challenging issue in Japan. Although residual risk can be technologically minimised, there have been varying reactions to nuclear power from other countries. In some Nordic countries, for example, nuclear power plants have become non-competitive against renewable energy from the cost perspective.

(2) Session 2: Building a Society for Realizing Reduction and Mitigation of Greenhouse Gas Emissions

–Energy strategies, Smart cities and infrastructure building, Hydrogen societies, advanced technologies and technology transfer and Joint Crediting Mechanism (JCM)–

Session Chair:
Shuzo Nishioka
Senior Research Advisor, Institute for Global Environmental Strategies (IGES)

Lead-off Speakers:
Paul Netter
Process Environmental Manager, the Environmental, Health and Safety Division, Compagnie de Saint-Gobain
Bernard Delmas
President and CEO, Nihon Michelin Tire Co., Ltd.
Jim Skea
Professor, Centre for Environmental Policy, Imperial College London

- To address climate change requires the re-direction of the existing development pattern of our society based on highly energy-dependent technology, and a paradigm shift to a new and sustainable development pattern. Through appropriate integration of climate policy into the existing development policy, we can build more prosperous and secure societies.

Sharing the recognition of "major transformation"

- To ensure a stable climate, shifting to a zero emission world is the only solution. It is time for leaders at all levels to jointly recognize the results offered by science, which indicate that we have to steer towards low-carbon societies as a matter of urgency.
- Such a drastic transformation deserves "political will" that leads societies based on deep insight, unwavering conviction, and strong responsibility. It also requires a clear and long-term perspective policy which embodies "political will."

Role of the current generation towards realizing sustainable societies

- The impacts of climate change have already been observed all over the world. We do not have much time left to take necessary actions. The current generation should proceed with adapting to a changing climate. Simultaneously, it is vital to make all-out efforts to stretch out the amount of time we can use as much as possible and to accomplish a major transformation to a low-carbon society as early as possible by immediately reducing emissions by the amount calculated from the permissible remaining "carbon budget."[1]
- Investments for this transformation should be promoted to the utmost, responding that they will contribute not only to move climate policies forward, but also to serve as excellent opportunities to secure public welfare for both current and future generations.
- We are facing various challenges such as an economic crisis, resource depletion, regional conflicts, poverty, starvation, financial deterioration, a widening gap in income between rich and poor, as well as an ageing society. Climate change will amplify these challenges, while, at the same time, policy for shifting to low-carbon societies provides a good opportunity to address these challenges by taking appropriate investment policy.

Technologies exist. Time to start implementing

- We have to increase energy efficiency, to reduce the total volume of energy, and to enlarge the use of non-fossil energy. We must also secure carbon sinks by enhancing land-use management. The necessary technologies for these challenges are already available and within a feasible range. What we need to do now is to deploy them across the whole of society in an integrated manner. However, this will take a significant amount of time. For example, in terms of hydrogen, it is necessary to build a hydrogen society to draw a roadmap while promoting infrastructure development. In this regard, we have to develop long-term plans towards establishing low-carbon societies, and steadily incorporate systematic, economic, regulatory and educational policies into long-term development policies in each country.

Cities and industries- major actors of implementation

- The final consumer of energy is livelihood and production, as well as the supply-chain connecting both of them.
- Because cities are composed of stakeholders sharing the same environment in each place, city planners and citizens are important actors to respond to low-carbon and adapting climate change. Autonomous behavior change by individuals is necessary. Not only energy saving and the promotion of renewable energy in the building sector, but also due consideration to the traffic system and urban structure should be further promoted. Key to all of these is the strong will of leaders, autonomous behavior change, and active participation of citizens through knowledge sharing in an appropriate manner within communities. Knowledge sharing amongst cities is also effective.
- Industries have already done more than just minimizing GHG emissions from their manufacturing process by technical innovation; they are also exerting a stronger presence. Industries provide products of a high-quality and with a low-carbon footprint, as well as promoting transformation

[1]An acceptable cumulative amount of greenhouse gas emissions when trying to limit a temperature rise to a certain level (past emissions + future emissions).

to low-carbon societies, by deploying such products and services such as low-carbon houses and transportation systems. Moreover, some positive actions have already been observed - voluntary and ambitious agreements towards realizing low-carbon societies by an association of companies led by motivated leaders. In addition, positive and voluntary actions are taken by industries and businesses including supply chain and financial industries.

- For example, in the building sector, national policies and regulations on energy efficiency and transition to low-carbon societies play very significant roles. In order for cities and industries to further advance transition to low-carbon societies, long-term and clear directions taken by governments are indispensable.

Long-term signal presented by governments

- Based on the Climate Change Act, the UK has developed mid-term carbon targets, and linked them with long-term emission reduction targets as a whole, while conducting flexible operations. At the same time, it is sending clear signals to industries and cities.
- To mobilize investments to reduce the burden for future generations, it is indispensable to introduce carbon pricing. We have to introduce various policies and measures relevant to carbon pricing which could promote financial flow for foresighted investment in low-carbon development.
- To promote transformation to low-carbon societies, unified and solution-oriented research development plans are necessary.

Collaboration under a new framework

- Realizing a low-carbon society in both developed and developing countries is indispensable and yields benefits for the entire world. In this regard, it is necessary to set up a mechanism to utilize finance, technology and knowledge, and for effective use of these resources, as well as to advance international technology transfer including WIPO-Green (World Intellectual Property Organization - Green), while paying due consideration to intellectual property rights.
- Pathways towards low-carbon societies will determine the future of each country. Therefore, planning and implementation should be made by the people of the country. In this regard, to build a research community to support the transformation to a low-carbon society in each country is indispensable, and cooperation from developed countries is needed, such as transferring Japan's experiences to developing countries.

To make the up-coming "Decade for accelerating climate actions" a clue to the solution of global challenges

- The up-coming decade is the very important for mankind, and we have to turn the next ten years into a "decade for accelerating climate actions." It is vitally important to facilitate multi-layered participation amongst governments, businesses, local-governments, citizens, and set-up dialogues promoting mutual communication. We cannot stabilize climate without dialogues based on international mutual trust.

(3) Session 3: Adaptation Measures for Reducing Climate Change Impacts

–Assessing impacts of and managing risks such as natural disasters, agriculture and food production, ill-health; building resilient social systems to reduce risks related to climate change; discussing the shape of international cooperation and support–

Session Chair:
Paul Shrivastava
Executive Director, Future Earth Secretariat

Lead-off Speaker:
Taikan Oki
Professor, Institute of Industrial Science, the University of Tokyo

Key risks from climate change

- Key risks under climate change include issues related to food, water, flooding, health and ecosystems, and the areas of risk will be different depending on the regions. There are common views on climate change impacts. In particular, there are concerns about agriculture, extreme events, food security, disaster risk reduction, governance, and mitigation. Once disasters occur, such cases may require emergency management activities after necessary consultation among related organizations, e.g. operations by the Self-Defense Forces in the case of Japan.
- In terms of agriculture and food, the magnitude of climate change impacts and social capacity differs depending on the regions and countries.
- Migration of species, including human, terrestrial species, bacteria and so on, are already occurring and such migration is likely to be intensified by climate change. Measures are needed for adapting to these large-scale movements.
- More extreme unpredictable natural events are expected to occur, and traditional risk management strategies are inadequate. It is vital to understand the interaction of natural events with social infrastructures, as well as taking into consideration the different impacts and how they affect poorer and richer communities, or urban and rural areas.
- The fact that the global economic system is highly interconnected should be taken into consideration in terms of adaptation. An average product which has ingredients from dozens of suppliers is transported over thousands of miles and involves multiple trade intermediaries. As a consequence, supply chains are multinational, multi-tiered, and not only unprotected, but unknown even to manufacturers.

Need for adaptation

- Adaptation is necessary besides mitigation, in order to address climate change.
- Adaptation measures aim to enhance the resilience of society in order to avoid critical damage. These measures work for poverty alleviation, rural development and disaster risk management by adaptive management.
- Adaptation can reduce climate change risk by addressing vulnerability and exposure to human and natural systems, while mitigation can reduce climate change impact through reducing GHG emissions.

Keys for success of adaptation

- Considering the scientific uncertainty and long-term nature of adaptation actions, a low-regret policy, which has co-benefit elements, is recommended.
- Adaptation and mitigation solutions are required with synergies and without trade-offs between domains within timeframes and priorities of global goals.
- Building governance is important to address climate change impacts, such as policy framework and planning. Mainstreaming adaptation into existing policy framework is an effective approach. However, it is difficult to prioritise adaptation measures among various sectors.
- Local communities play significant roles in taking action to address climate change. The use of indigenous knowledge contributes to addressing climate change impacts.
- Science, including social science, places a significant role in creating narratives for the better understanding of current and future climate impacts and of possible practical countermeasures. For example, scenario planning is an effective tool for understanding future climate risks to various stakeholders, including local communities. There is a strong need to strengthen inter-disciplinary approach with the engagement of all relevant stakeholders.
- Future Earth is a global research programme to develop systemic knowledge and action around climate change and sustainable development, being internationally collaborative, inter- and trans-disciplinary, action and solution- oriented, as well as creating products co-designed with stakeholders.
- Adaptation measures need to be designed in systemic and integrated ways so as to avoid inadvertently hiding any negative effects.

(4) Session 4: Actions for Achieving UN Sustainable Development Goals (SDGs)

–The post-2015 development agenda and its effective means of implementation–

Session Chair:
Macharia Kamau
Ambassador Plenipotentiary and Extraordinary and Permanent Representative, Kenya Mission to the United Nations, New York

Lead-off Speakers:
Kazuhiko Takemoto
Director, United Nations University Institute for the Advanced Study of Sustainability (UNU-IAS)
Norichika Kanie
Professor, Graduate School of Media and Governance, Keio University
Måns Nilsson
Deputy Director and Research Director, Stockholm Environment Institute (SEI)

Historical significance of SDGs

- The United Nations summit for the adoption of the post-2015 development agenda, namely "Transforming our world: the 2030 Agenda for Sustainable Development" was held from 25 to 27 September 2015, in New York and convened as a high-level plenary meeting of the General Assembly. The 17 Sustainable Development Goals and 169 targets (SDGs) are included as the main part of the Agenda, which demonstrates the scale and ambition of this new universal Agenda.

- The adoption of the Agenda associated with SDGs exciting and global challenges for us, was historically significant. Although Sustainable Development (SD) itself was put forward at Rio+20, the Agenda was adopted in order to mainstream SD in the context of development and society. The most significant meaning of the adoption is that the Agenda and SDGs delivered a clear message of common recognition to fully integrate synergistically all three dimensions of SD, i.e. economic, social, and environmental.
- The SDGs have universal, integrated and interdisciplinary character and contains several important concepts such as planetary boundary. The SDGs bring the opportunities for all stakeholders, including governments and related institutions, to re-visit their own measures to re-evaluate their effectiveness, appropriateness and implementation speed.

New approach taken in SDGs negotiation process and further implementation

- It is also significant that, unlike the style of past negotiations, SDGs were formulated with a new approach. There has been no such style in the past that sets a clear vision first (The Future We Want), followed by each stakeholder creatively considering and implementing a pathway to achieve this vision in the context of global governance.

Indicators for measuring progress and data management

- Appropriate global indicators need to be set up in order to monitor the progress of SDGs, and indicators will be developed by the UN Statistics Commission on March 2016. To monitor global, regional, national and thematic progresses, based on the indicators, we need to develop different indicators in response to globe, regions, nations and themes.
- In order to achieve the principle of "no one will be left behind", it is indispensable to ensure that accurate, timely and disaggregated data to cover all categories of people is captured.

Concrete paths, actions and cooperation have been emerging

- In Japan, especially among the stakeholders whose responsibility and business are related to Goal 12 (SCP: Sustainable Consumption and Production), consideration must be given on the norms and concrete pathways to implement each target in Goal 12 on their own in both individual and cooperative ways. Such ways would be considered to be effective to implement SDGs, with stakeholders implementing elements of SDGs according to each stakeholder's willingness and responsibility. Activities on food waste and education are examples as concrete actions.
- In Sweden, concrete studies which are anchored on SDGs have been conducted. National targets should be settled in accordance with national circumstances, while keeping coherence and synergies among targets and being carefully developed along with global targets.
- There needs to be continuous follow-up and review especially at the national level with focus on the thematic approach and the interlinkages among various goals and targets. At the research level, knowledge for integrated implementation of SDGs has been accumulated in Japan and Sweden. We expect such knowledge to be put to good use in policies.

Further deployment of stakeholders' efforts for implementation

- After the long and well-considered process of negotiation, finally the Agenda was adopted. We are now at the stage of implementing SDGs. Implementation should be approached from a

national, regional and global perspective.

- In order to ensure wide implementation by stakeholders including private sectors, civil societies and countries, it would be preferable to share good practices across borders and take necessary actions. Resources for implementation are available. In that context, private sectors in particular are expected to play an important role.
- When planning concrete actions, we should bear in mind that the Agenda is universal. It is not only for developing countries, or developed countries, but for all countries alike.

(5) Session 5: Roles of Epistemic Communities in Policy-Making

–Facilitating communication between scientists and stakeholders in the real world, scientific knowledge and expert advice, comprehensive approaches in problem-solving, Roles IPCC, ICSU, IPBES or other epistemic communities to play–

Session Chair:
Hironori Hamanaka
Chair of the Board, Institute for Global Environmental Strategies (IGES)

Lead-off Speakers:
Gordon McBean
President, International Council for Science (ICSU)
Fumiko Kasuga
Future Earth Secretariat Global Hub Director - Japan
Anne Larigauderie
Executive Secretary, Intergovernmental Platform on Biodiversity and Ecosystem Services (IPBES)

Importance of epistemic communities

- Science-based knowledge provided by epistemic communities has been playing an essential role in negotiations on multi-lateral environmental agreements. For example, IPCC Second Assessment Report played an important role in advancing negotiations on the Kyoto Protocol.
- As the international community moves forward from agreeing on new regimes to setting more ambitious goals and targets, and to implement them, epistemic communities are expected to play an increasingly important role in informing policymakers by providing, for instance, information on options for effective actions.
- Epistemic communities play a significant role in providing science-based knowledge on how much the global environment has been deteriorating as precisely as possible. Such knowledge needs to be communicated in an easy language for stakeholders. In particular, when communicating the seriousness of environmental problems for stakeholders, it is important to communicate the urgency of the problems. Cooperation of communication experts is also important.

Past experiences and lessons learned

- Required transformations are complex processes of profound social change, altering our social and economic systems, values and lifestyles in ways that could put society on a fundamentally

different development path. In order for the epistemic community to play an important role in this transformative social change, a mechanism for periodic reporting on authoritative assessment of scientific findings is important.

- In the research activities of scientists, collaboration across disciplines (in particular, between social and natural sciences), addressing what society needs and applying science in the society is something that has been missing or inadequate.
- Epistemic communities should: 1) develop functions and form institutional platforms for regular and systematic collection, assessment and integration of scientific knowledge; and 2) establish regular and institutional collaboration with policymakers.

The roles of ICSU, Future Earth and IPBES

- The mission of the International Council for Science (ICSU) is to strengthen international science for the benefit of society. ICSU aims for more active engagement of science in policy making, with its vision to create a world where excellence in all sciences is effectively translated into policy making and socio-economic development.
- Future Earth is a major international research platform providing the knowledge and support to accelerate our transformations to a sustainable world.
- We need integrated science that works across disciplines and fields, and that works globally with society, informing policy via an epistemic process such as that of the IPCC and IPBES.
- The mission of IPBES and IPCC is to provide policy relevant knowledge in response to request from policymakers. IPBES is conducting a process that involves various stakeholders including governments and NGOs.

Strengthening the role of epistemic communities

- Both science and policy should be more interactive to advance dialogues. Evidence-based policy needs to be emphasised more.
- It is necessary to enhance the capacity of researchers so that they can appropriately inform policymakers with the latest scientific knowledge. Especially in developing countries, research activities are dependent on foreign experts, which results in the lack of accumulated knowledge, and there is a need to enhance capacity of scientists in implementing research activities as well as communicating with stakeholders.
- It is important to ensure credibility and legitimacy of scientific contributions. The use of scientific reports would be increased if the report responds to requests from governments and other stakeholders, if it was produced by scientists selected according to agreed rules, if policy makers were invited to comment on its conclusions, and they approve its final summary for policy makers, like IPCC or IPBES does.
- There is a lack of financial resources for research activities in most countries, in particular for integration of sciences under different disciplines, for management, and for building capacity of scientists, which makes it important to diversify financial resources, i.e. utilisation of development funds for scientific activities, as well as private foundations and crowd funding.

4. Wrap-up Session

Discussions at the thematic sessions were presented and endorsed as summarised in the preceding sections. Key points of the discussions at the meeting as a whole are outlined below:

- Long-term strategy is needed toward decarbonization. Meeting the 2°C goal is essential for the world. Yet, INDCs that have been submitted by many countries are not enough to meet this goal. Success at COP21 is essential, not as a goal of negotiation, but as a starting point of global collective efforts towards decarbonization. Enhanced actions by non-state actors including local governments, industries and citizens, innovation of social system as a whole in addition to the technological aspects, and further promotion of renewable energy and energy efficiency are important.
- Carbon pricing is important. Introduction of emission trading system should be considered learning from the experiences from existing schemes around the world. We recognize proactive and leading actions, which have been taken by the business, local governments and other non-state actors.
- In order to stabilise our climate, there is now no option but to shift to the world of zero emissions. All leaders at all levels need to have common recognition of the scientific results that indicate the need to steer towards a "low carbon society" immediately. For this major shift, what we would need most is "political will" to lead a society with insights, strong belief and responsibility and it is a clear and long-term perspective policy which embodies "political will."
- Climate change poses significant risks in various fields, such as disaster, food, agriculture, water and ecosystem, depending on regions, people, and sectors. Climate change would be a challenge or a barrier to the sustainable development. Adaptation is necessary to reduce such climate risks by enhancing resilience of the society. It is essential to take into account such elements as low regret policy, synergies and trade-off between adaptation and mitigation, and good governance and scientific knowledge.
- The implementation of the SDGs, which contains exciting and global challenges, should be approached from a national, regional and global perspective. While all stakeholders have their respective roles, private sectors, civil societies and countries should all pursue their own responsibilities.
- A sense of integration is important across the issues of climate change, disaster risk reduction, development assistance and the SDGs. Also it is important to conduct science in an integrated way, taking a bottom-up approach, actively involving stakeholder communities and responding to the needs of society. Governance, initiatives like Future Earth, as well as scientific knowledge could be further considered to bring about the integration of those issues.