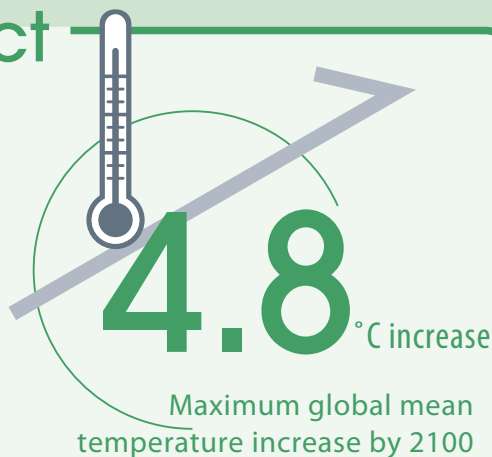


Material  
Issue **2**

# Tackling Global Environmental Issues

## Adapting to Climate Change Based on a Backcasting Approach

### Fact



Source: Report of Working Group III (Mitigation of Climate Change) in the IPCC Fifth Assessment Report (AR5)

The IPCC (Intergovernmental Panel on Climate Change) published the IPCC Working Group III Fifth Assessment Report "Mitigation of Climate Change" in April 2014 and it warns that without additional efforts to reduce GHG emissions beyond those in place today, the global mean surface temperature may increase in 2100 up to 4.8°C compared to pre-industrial levels. Since it is becoming clear that climate change is affecting nature and ecosystems, the Group is required to work closely together with other companies and various stakeholders to address global environmental issues.

### Our Action

Sompo Japan Nipponkoa established the Environmental Risk Management Office in 1990, and the President of Yasuda Fire & Marine Insurance Company (now Sompo Japan Nipponkoa) participated in the United Nations Conference on Environment and Development ("Earth Summit") held in Rio de Janeiro in 1992 as head of the Japan Business Federation.

In order to hand down the precious global environment to future generations, the Sompo Japan Nipponkoa Group has set mid- to long-term goals of reducing GHG emissions to 40% compared to the fiscal year 2002 levels by 2020 and 70% by 2050.

The Group will contribute to promote the realization of a resilient and sustainable society by addressing environmental issues in the course of its business operations and proactively engage its stakeholders in forward looking dialogue.

Dr. Shuzo Nishioka, Senior Research Advisor to the Institute for Global Environmental Strategies (IGES), and Masao Seki, Senior Advisor on CSR, Sompo Japan Nipponkoa and Executive Director of the Sompo Japan Nipponkoa Environment Foundation, had a dialogue on the theme of "Adaptation to Climate Change" in May 2014.

During the dialogue, Dr. Nishioka has given his feedback on the activities of the Environmental Issue Research Group as a chairman of the research group since 2011. Furthermore, Dr. Nishioka gave us his expectations and advice on the Group based on the latest trends in global warming.



**Masao Seki** Senior Advisor on CSR, Sampo Japan Nipponkoa Insurance  
Executive Director, Sampo Japan Nipponkoa  
Environment Foundation



**Dr. Shuzo Nishioka** Senior Research Advisor, Institute for Global  
Environmental Strategies (IGES)

## Activities of the Environmental Issue Research Group

**Seki** Thank you for your continued contribution as the chairman of the Environmental Issue Research Group since 2011. I'd also like to take this opportunity to thank you for undertaking the editorial supervision of the book titled *How Should We Adapt to Climate Change Risks?*, which we published in March 2014. We were able to introduce the book in a symposium on "Business and Environment Issues" organized by our foundation.

The group has been researching on the theme of "adaptation to climate change." Would you share your thoughts looking back on the past three years as the chairman of the research group?

**Nishioka** I very much appreciated that the research group provided me with opportunities to be involved in very interesting, pioneering work. I'd also like to thank everyone who has participated in our activities.

During the last three years, many events occurred which made us realize that climate change is an imminent risk. This indicates that the impact of human activities on the environment is posing an increasingly serious

risk. In the past three years, there has been a feeling of momentum that an increasing number of people realize that they themselves must do something to inhibit climate change and feel strongly that adaptation is the way to cope with imminent risk of climate change.

With regard to the publication of the book titled *How Should We Adapt to Climate Change Risks?* in particular, people from various sectors—such as academia, local government officers, international negotiation experts, and staff from NGOs—became involved, allowing us to have very meaningful discussions. Since the book covered timely topics about what adaptation is, why it is so important, how effective it is on a global scale, and what specific measures can be taken, I believe it was a frontier in the field of adaptation.

**Seki** Thank you. As you have mentioned, since people from various sectors took part in the production of the book, it made the book so unique that it covered efforts of a wide range of sectors comprehensively. I also heard from the participants of the research group that they highly appreciated how the group had been helping them connect with other researchers and provided them opportunities to communicate with business, local governments, NGOs, and other organizations. I thought this was quite impressive.

## VOICE

### Initiatives of Sampo Japan Nipponkoa Environment Foundation



**Tokuko Sarai**  
Secretary General  
Sampo Japan Nipponkoa  
Environment Foundation

Sampo Japan Nipponkoa Environment Foundation has been holding the Environmental Issue Research Group since 1993 and dealt with the social issues of "land pollution," "waste material" and "the precautionary principle." The research group has undertaken further study on devising solutions to each of the timely social issues with experts in various fields and has been publishing the research results in the form of books as their outcome.

The latest study theme of the research group is "Adaptation to Climate Change"—a topic of a close concern to the non-life insurance business—and it has currently published a book based on the study results during fiscal year 2011 through fiscal year 2013.

The main feature of the book is "multi stakeholders." In order to increase effectiveness of the adaptation practices, it is inevitable for multi stakeholders to incorporate the practices into their decision making and practical actions within each sector. Therefore, we compiled the book in a collective view of the latest knowledge and the actual conditions by focusing not only on the methodological outcome of the research group but incorporating the practical approach undertaken among the business sector, local government and international NGOs/NPOs. We hope that the book will widely reach out to both academia and the general public, to provide a good opportunity for stimulating interest in "Adaptation to Climate Change."



*How Should We Adapt to  
Climate Change Risks?*  
(Published in March 2014)



## Impact of Climate Change

**Seki** When I visited New York in February 2014, thousands of flights were cancelled in the eastern United States due to the unusually heavy snow. On the same trip, in San Francisco, I heard news that the western area was hit by the worst drought in 500 years, which caused severe damage to agriculture. This kind of extreme weather and natural disasters is taking place not just in the United States but everywhere in the world. The Japanese government is planning to formulate a climate change adaptation plan by summer of 2015, and I think that the research group could play a constructive role by providing valuable inputs.

**Nishioka** I cannot say for sure that all those natural disasters are caused by climate change, but it is apparent that the frequency of the occurrence of extreme weather events is increasing. Adaptation cannot be an ultimate solution to climate change. It is something that we have no choice but to pursue. However, needless to say, we cannot keep adapting ourselves to climate change forever and we must stop the rise of the global temperature at some point in the future.

It is important for us to keep in mind that we are dealing with nature. Dr. Thomas Stocker, Co-Chair of IPCC Working Group I (The Physical Science Basis) Fifth Assessment Report, pointed out that limiting climate change is the best measure for adaptation. Climate change is an issue that needs to be addressed in a hundreds of year perspective and Japan must figure out what it can do about climate change seriously.

However, as a matter of fact, GHG emissions in Japan between 2008 and 2012, the first commitment period of Kyoto Protocol, increased by about one percent on an annual average basis over the base year of 1990. Although Japan is often noticed for its advancement in energy conservation, Japan, in fact, has been outstripped by Germany and the United Kingdom among OECD countries in terms of energy consumption compared to GDP. The United States and China are catching up quickly, so we must eliminate our delusion that Japan is doing well in energy conservation.

## Expected Leadership of Business

**Seki** Amid that situation, the business role is becoming increasingly important. I also think having a long-term perspective is a key to addressing the situation. The world population is forecasted to reach over 9 billion by 2050. Business needs to think first about what the world will be like in 2050 and then what to do now to solve expected issues—in other words, adopt a so-called back-casting approach. This approach is used by the World Business Council for Sustainable Development (WBCSD), of which our company is a member. For example, if the world's urban populations doubled as predicted, we should have totally new and innovative urban plans to realize smart, low-carbon

and resilient cities. Business usually works with government only in the implementation phase, but WBCSD strongly encourages its member companies to become involved as early as in the upstream design phase to provide their know-how and technologies in formulating strategic long-term plans for future sustainable cities.

Having a long-term perspective is also important in the world of investment. The Financial Services Agency published the Japanese version of the Stewardship Code in February 2014 with the aim of promoting sustainable growth of companies through dialogue with institutional investors. This implies the relationship between business and investor should be restructured from the viewpoint of companies' long-term growth.

**Nishioka** If we continue to invest in infrastructure that requires huge amounts of energy consumption as they do now, the infrastructure has to be used for more than 50 years due to a "lock-in" effect. Investments must be selected from a long-term perspective based on a back-casting approach.

**Seki** In addition to having a long-term perspective, it is also important for business to involve the value chain players in the process of sustainable and equitable growth. For example, Unilever, a consumer-goods giant, is involving the company's 2 billion users around the world in the *Unilever Sustainable Living Plan* with an attempt to spread sustainable lifestyles. The company is exploring what it can do in every phase of the value chain from procurement of raw materials to final consumption, setting ambitious goals, and involving everyone in the chain. The interesting thing is that many NGOs sympathized with Unilever's policy and willingly started to work with the company to attain its goals.

## Expectations toward the Sompo Japan Nipponkoa Group

**Seki** We have discussed the importance of leadership of business. Could you tell us what role you would expect the Sompo Japan Nipponkoa Group to play?

**Nishioka** While generating short-term wins is necessary to sustain the business, it is also important to care about future generations when making investment decisions in order to pursue sustainable development. What I would expect of the Sompo Japan Nipponkoa Group is to continue to provide products and services that contribute to social security, such as the weather index insurance provided in Thailand. I would also like to see the Group contributing to the expansion of renewable energy through its asset management business. Japan lags behind Europe in the usage of renewable energy sources and Japan must put more effort into realizing zero emissions. I would like the Group to play a leading role in this effort by supporting the stabilization of global environmental issues.

**Seki** Thank you. We are well aware that the most important role of a private insurance company is to offer insurance, financial products and services that meet the needs of customers and society, such as weather index insurance you mentioned. We will make further efforts to integrate sustainability into our product development process.

## Trend of Global Industrial Circles

**Seki** With regard to the Conference of the Parties (COP), an international negotiation on global warming, the industry sector was



previously hosting its own events outside of the official conference venues. But in COP19 held in Warsaw, Poland in 2013, the industry sector was successful in organizing an event within the official venue for the first time in the history of the conference. This literally marked industry's first step into the circle of deliberation. This was a result of the long efforts of WBCSD and United Nations Global Compact (UN GC) that had been continuously proposing their opinions as the businesses sector and it led COP to acknowledge that policy discussions must involve business as a solution provider.

**Nishioka** Is the movement of business sector evolving against climate change?

**Seki** In the case of WBCSD, its member companies are only about 200 worldwide, and the movement has not yet gone as far as proposing on respective government policies. The UN GC, a partnership initiative between the United Nations and business, has over 12,000 corporates and organizations from more than 140 countries, but among them, the number of companies taking part in "Caring for Climate," an initiative aimed specifically at climate change, is as small as a few hundred. Both of these initiatives have stronger impacts than before, but still they are not expanding sufficiently.

## GHG Emissions in Developing Countries May Become Three Times Higher than Those of Developed Countries

**Seki** We have discussed the trend of industrial circles. Now would you share your idea of what Japan can contribute to the sustainable growth of developing countries?

**Nishioka** Without additional efforts to reduce GHG emissions beyond those in place today, emissions growth in developing countries is expected to be more than three times higher than those of developed countries by 2100. Emissions from developed countries are expected to be in remission by 2100, but even when developed countries reduce their emissions by 80%, the climate will not be stabilized unless something is done about emissions in developing countries. It is estimated that 50% of economy, energy consumption, and GHG



emissions globally will be attributable to energy use in Asian countries by 2050. We researchers are providing various research materials and information on systems in Japan to Asian countries in order to encourage them to shift their current policies to more low-carbon-oriented policies. As a country advanced in energy conservation, Japan has been making a great effort and possesses technologies that underpin low-carbon growth of countries. I think that Japan should further support developing countries in Asia to back up their efforts to reduce GHG emissions without disrupting economic growth and development. China is currently the best country in the world for renewable energy generation as well as renewable energy technology, and other Asian countries should also pursue low-carbon development by taking the climate change issue as a good opportunity.

## Creating a Resilient Society

**Nishioka** If the ecosystem itself loses its balance, human society, which is only a part of the ecosystem, will also be affected severely. The climate can be described as the "mother of the global environment." It is the climate that controls the creation of all kinds of natural capital, ecosystems, and natural resources including water and air. Therefore, the current serious climate change is something that we all should be alert about. In Japan, it is necessary for the industrial sector, public agencies, NGOs, etc to cooperate with each other and implement cross-sectoral measures. I believe that these efforts will eventually lead to a significant contribution to international sustainability.

**Seki** A recent issue of the *Harvard Business Review* refers to companies integrating climate change into their corporate strategy as "resilient companies," and I think "resilience" has become a key word. Companies must enhance resilience, which means that companies must both strengthen themselves and help strengthen society as a whole. In other words, companies need to work on climate change not as a social license to operate but as an integral part of their business strategy. Only a handful of companies have this kind of mindset, but I think this is something that all companies should embrace and place greater focus on. The Sampo Japan Nipponkoa Group will also continue to strive to address the issue from a global perspective and through cooperation with the government, NGOs, and other stakeholders.

Thank you very much.

