Korea Green Foundation
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Lecture by Yvo de Boer, Executive Secretary
United Nations Framework Convention on Climate Change
"The need for global low-emissions economic development"

The Science

Since the Industrial Revolution, concentrations of greenhouse gases in the atmosphere have risen steeply, mainly because of the use of fossil fuels, but also as a result of deforestation and other economic activities.

- **Like a blanket around the planet, greenhouse gases form a layer** that stops energy escaping from the Earth's surface and atmosphere.
- If levels rise too high, **excessive warming occurs.**
- **Eleven of the last 12 years rank among the warmest in the last 150 years**, and the warming trend has already affected all continents and oceans.

The latest assessment by the **Intergovernmental Panel on Climate Change (IPCC), released during 2007,** shows that the **warming of the climate system is unequivocal and accelerating**.

The IPCC also found that **warming during the last 100 years was 0.74 °C, with most of the warming occurring during the past 50 years**.

Measurements show a rise in atmospheric **concentrations of carbon dioxide** from a pre-industrial value of 278 parts-per million (ppm) to 379 ppm in 2005.

Serious and sometimes devastating impacts are associated with climate change, including sea-level rise, shifts in growing seasons, and an increasing frequency and intensity of extreme weather events such as storms, floods and droughts. Impacts of climate change will vary regionally, with the most significant impacts expected in the **Arctic, the Asian mega-deltas, Small Island Developing States (SIDS) and sub-Saharan Africa**.

Impacts in the Republic of Korea are also serious:

- The **Korean Peninsula is at increased risk of sea-level rise**.
- **Rice yield is expected to decrease** by 10% for every 1C increase in growing season minimum temperature.
- **Heavier rainfall** has already been observed.
- Winters are getting shorter and summers are getting hotter, bringing **changes in agriculture**.

Climate change impacts are already affecting the economy. To refer to a Korean study, the **Samsung Economic Research Institute** recently said that the amount of economic loss caused by climate change is **2.7 trillion won a year - a dramatic increase from 100 billion won in 1960.**

The international response to climate change

Negotiations for the Framework Convention on Climate Change began in 1990 and in 1994, the UNFCCC entered into force. It now enjoys near universal membership.

- The ultimate objective of the Convention recognises that **change is inevitable, but pace and intensity must be managed at levels that will allow people and ecosystems to adapt.**

The Convention sets out a number of **important principles that guide the inter-governmental climate change process**.

- This includes the principle of "**common but differentiated responsibilities and capabilities"**, which assigns the lead in combating climate change to developed countries, given their historic contribution to its causes and the financial and technological resources they command.

To further strengthen the response to climate change, the **Kyoto Protocol was negotiated. It was adopted in Kyoto in 1997**, and entered into force in 2005.

The Protocol contains individual binding emission reduction targets for 37 industrialised countries and the European Community. Jointly, their **emissions of six greenhouse gases will be reduced by at least 5% from 1990 by 2012.** Apart from the United States, all industrialised country Parties have ratified the Kyoto Protocol.

The **Kyoto Protocol is a first step in climate change abatement**. Its architecture is a key pillar in the international response to climate change.

However, the **IPCC's projections indicate faster warming is expected.** If global emissions continue to rise at their current pace and are allowed to double from their pre-industrial level, **the world will face an average temperature rise of around 3°C this century.**

According to the IPCC, global emissions need to be reduced by **50% compared to 2000 levels by 2050.**

The best-case scenario of the IPCC focuses on keeping the maximum temperature increase around **2C. To achieve this, emissions of industrialised countries need to be reduced in the order of 25-40% over 1990 levels.**

The first commitment period of the Kyoto Protocol will end in 2012. **In light of the latest science, it is clear that action now, and especially after 2012, needs to be stepped up significantly**.

The Bali Road Map

Governments recognised the **urgency to act** last year. The UN Climate Change Conference in December in Bali yielded a **two-year negotiating mandate - called the Bali Road Map - to strengthen the international response to climate change**. The negotiating process is set to **conclude in an agreed outcome in Copenhagen in 2009**.

Governments have **a small window of opportunity to craft a solution to a huge problem.** A quick look at anticipated energy investments illustrates this window of opportunity. **The energy sector is responsible for by far the largest share of global CO2 emissions.**

According to the IEA, global **energy demand** will grow **by 55% by 2030**. In the period up to 2030, the energy supply infrastructure world-wide will require **a total investment of $22 trillion, with about half of that in developing** countries.

- If we do **not manage to green these investments**, to direct them into climate-friendly technologies, **emissions will have gone up by 50%, instead of down by 50%, as science tells us they should.**

The agreed outcome under the Bali Road Map in Copenhagen 2009 must urgently open the door for **viable, climate-friendly economic growth** on a global scale.

The up-coming UN Climate Change Conference to be held in **Poznan,** Poland in December is the **half-way mark where a stock-taking of progress** will be done.

Negotiations involve work under **both the Convention and the Kyoto Protocol**.

Under the Kyoto Protocol, **new targets for industrialised countries, as well as ways to improve the market-based mechanisms are up for negotiation.**

Under the **Convention,** governments agreed to strengthen their actions around four building blocks: **adaptation, mitigation, technology and finance.**

With regard to enhanced action on mitigation, **industrialised countries** would do this through measurable, reportable and verifiable mitigation actions, **including quantified emission limitation and reduction objectives.**

While **developing countries are not required to take on binding emission reduction targets**, they are making a major contribution by agreeing to **enhance their mitigation actions based on the following**:

- Nationally appropriate mitigation actions in the context of sustainable development, supported and enabled by technology, financing and capacity building, in a measurable, reportable and verifiable manner.

A climate change agreement needs to have a financial architecture that enables actions by developing that are measurable, reportable and verifiable.

New realities shape new opportunities

The **Bali Road Map** refers to **developing and developed** countries. It does **not refer to the distinction used in the 1997 Kyoto Protocol of Annex I Parties** (those with targets) and **Non-Annex I Parties** (those without targets). This distinction reflects the economic realities of the early 1990s, with **Annex I Parties mainly being OECD countries.**

Much has happened in Korea since 1997. You have experienced incredible economic growth and now have the **3rd largest economy in Asia and the 13th largest in the world.** While still being listed as a **Non-Annex I country in the Kyoto Protocol, Korea is now also a member of the OECD**.

Since the Bali Road Map does not pick up the old distinction, **the door for a new way of thinking has been opened.** The Republic of Korea needs to **look at its position from today's perspective and needs to lead this new thinking**.

Korea has also indicated that it will announce a **reduction target for 2020 in 2009, which will show how it will reduce emissions from business as usual.** This too is encouraging. **I call on Korea to take on a clear leadership role, to be ambitious in setting the target and to show the world that you are taking on the responsibility of responding to your new, advanced economic reality.**

Korea has also indicated that it will **increase its investments into the research and development of environmentally sound technologies**.

Further, it has indicated the intention to **expand the environmental market share in order to establish the environmentally sound industry as a new economic growth engine.**

Indeed, the **private sector needs to play a key role in mitigation, since the largest part of finances and environmentally sound technologies lie in their hands.** If we want an **economically viable outcome in Copenhagen 2009, the private sector in all countries needs to be involved in a significant way.**

And there is a **first-comer advantage to greening the economy sooner rather than later that a dynamic economy like Korea should not miss.** According to a number of models, **there is a lot of economic potential in this transformation.**

Copenhagen 2009 is about creating value for change, **creating new investment opportunities and opening up whole new markets for businesses.**

Copenhagen 2009 is about taking responsibility and making low-emissions economic development a reality across the world.
