

How to Realize Economical Development of Developing Countries within the Restriction of Global Climate Change

Itaru Yasui

Principal Fellow, Center for Research and Development Strategies, JST

Professor Emeritus, The University of Tokyo, Japan

Vice-Rector Emeritus, United Nations University

Human well-being can only be realized by 4 kinds of inevitable supplies in quantity and quality, i.e. food, air, water and energy. Global climate change still has some uncertainty in theory and calculation, on the other hand, its adverse effects on human lives on the Earth will be huge enough to affect everything through mainly by the status of water in all aspects, including availability and quality.

Change in precipitation already started to affect the availability of agriculture use of water in mountain areas, because the increase in temperature results in the change of way of precipitation from snow to rain. Snow can be the natural water reservoir and water can be use in April or May, but if the precipitation in the form of rain, water supply can be problematic. This kind of situation has been already serious in Himalayan and Andean mountain areas.

The quantity water available directly affects the supply of foods. This is the most direct adverse effects of global warming on the well-being of people observed several areas on the Earth.

Global climate change is currently one of the most important international issues. UNFCCC is trying to mitigate the global warming by reducing green house gases (GHGs). International politics, including G8 Summit, declared the importance of halving GHGs by 2050. According to several recent prospects, global CO₂ emission will increase almost 3 times from the year of 2000 to 2050. The CO₂ emission in developing countries will have to be

reduced to almost 1/3, while advanced countries will not be allowed to emit any CO₂. (Figure 1 & Figure 2)

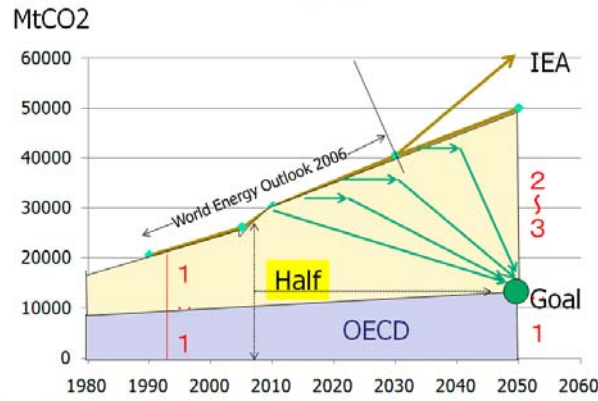
Most of advanced countries realized economical growth by the consumption of much energy in the form of very cheap petroleum. It is suggested we already experienced "oil peak" or we will have it very soon at least, and it is very likely we are now facing the 3rd oil crisis.

Development is very important to overcome poverty and extreme hunger, and we can expect eradication of poverty will result in the reduction of birth rates in least developed countries. It will be necessary to have almost many kinds of resources for all countries. Do we really have enough resource to realize the development of all human society? This is the most important question to be answered as soon as possible.

It is necessary to have several important measures. Technological transfer can be one of such measures. Development of technologies can be the other. It seems impossible, however, to make Western type of culture spread all around the world. Therefore, cultural diversity is the most important concept to keep in relation to the target of human being.

2050年までの道筋

Schematic Drawing up to 2050

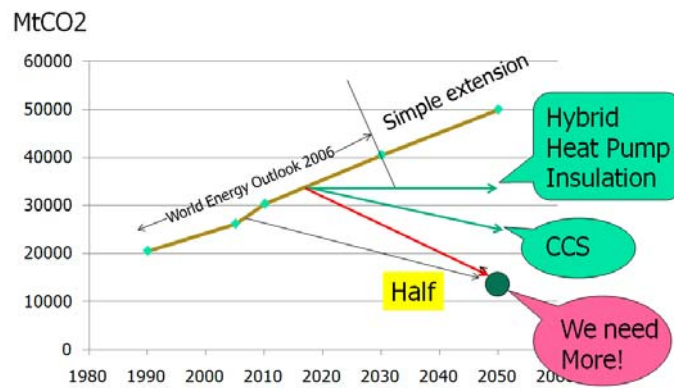


**Impossible to Reach the Goal even Emission from OECD=0
Reduction in Developing Countries = Key Factor**

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Figure 1: Prospect of CO₂ emission increase to 2050

Schematic Drawing up to 2050



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Figure 2: Development and transfer of technologies are crucial