

Seven Points to Consider on Climate Change Measures

By Masakazu Toyoda

In mid-November last year, COP26, which was held in Glasgow in the United Kingdom, came to an end. Evaluation of the outcome varied greatly from person to person. Some say it was a failure, others say it was a great success, reflecting each person's expectations and attitude towards climate change. It is important to note that climate change is a global problem, and there is a limit to what can be accomplished by the efforts of a few countries, so it is vital to build a global consensus. The 1997 Kyoto Accord set top-down reduction targets, but as a result only 37 countries and regions agreed to reduce their emissions. The United States itself, which contributed greatly to the formation of the agreement, did not participate in it due to congressional opposition. The Paris Agreement was a bottom-up process in which each country decided on its own reduction target and committed to it, and as a result 186 countries and regions participated. This is proof that climate change cannot be dealt with through imposition or coercion.

I would like to list seven important considerations for the success of climate change measures.

First, should we aim for 1.5°C or 2.0°C? If the acceptable range of temperature increase since the industrial revolution is 1.5°C, it would require a net reduction of greenhouse gas (GHG) emissions to zero by 2050. If it is 2.0°C, it would be an 80% reduction. By the end of COP26, 144 countries and regions had committed to carbon neutrality in 2050, and 154 if commitments to 2070 are included. However, the International Energy Agency (IEA) estimates that even if these more than 154 countries and regions achieve their goals, a 1.8°C increase will be inevitable.

Second, the UN's Sustainable Development Goals (SDGs) include 17 goals, but is climate change the most important one? The UN goals certainly include "tackling climate change", but there are also at least six goals related to economic growth, including poverty eradication, hunger eradication, health and welfare for all, and quality education. Incidentally, according to a UN survey, the top three concerns of many developing countries are quality education, health and welfare, and poverty eradication. Climate change only ranks around 10th.

Third, which countries have spent their carbon budgets? The cumulative amount of GHG emissions that the world can tolerate is called the carbon budget, and if we look at the period up to 2019, apart from changes in land use, the consumption of OECD countries will account for 57%. If we look at this in terms of cumulative emissions per capita, even in 2070, OECD countries are consuming twice the 2°C level, while non-OECD countries

are consuming less than the 1.5°C level. In short, it is the OECD countries that are consuming most of the carbon budget.

Fourth, the amount of zero-carbon energy available may vary from country to country. In the European Union, there are many areas with abundant wind power, although solar power is about the same as others. In South Asia and Japan, however, there is a limit to the number of areas with stable wind power, and there is also a limit to the amount of sunlight due to high rainfall. In addition, the EU has a cross-border power grid that can flexibly respond to changes in the weather. Asia's wide-area power grid is limited, and Japan's geopolitical constraints make it unlikely for the time being.

Fifth, do we have enough zero-carbon energy technologies in place? Excluding renewable energy, we have nuclear power and hydrogen, which is rapidly gaining attention. It is undeniable that there is a limit to the introduction of nuclear power due to safety concerns. There are various types of hydrogen, such as blue hydrogen made from fossil fuels and carbon capture and storage (CCS), green hydrogen made from renewable energy and electrolysis, and yellow hydrogen made from nuclear energy. However, the cost of hydrogen is relatively high at present, and its introduction in developing countries is not easy. There is an urgent need to reduce the cost through technological development in developed countries.

Sixth, will a border adjustment tax not bring about a North-South confrontation in order to prevent carbon leakage? According to WTO rules, it is not consistent with national treatment to impose a tax on another country that is not imposed on one's own country. In addition, if it is developed countries that have spent most of the carbon budget, what right do they have to impose border adjustment taxes on developing countries?

Seventh, are developed countries ready to support developing countries? At COP26, there was strong criticism that the \$100 billion per year in climate finance pledged by developed countries had not been met. New post-2025 targets will be discussed, but would require substantial support.

There are many more points to consider, but even just looking at these seven points, it is not easy to solve climate change without creating a North-South problem. We need to keep in mind that we should have a multilateral perspective. **JS**

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