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## **Creating Effective Frameworks on a Truly Global Scale –Opinions on Post-Kyoto International Frameworks–**

**KEIZAI DOYUKAI (Japan Association of Corporate Executives)**

### **Main opinions**

- A debate concerning frameworks for implementation subsequent to the Kyoto Protocol to the United Nations Framework Convention on Climate Change needs to get under way in Japan as soon as possible. In addition, efforts must be made to coordinate opinions.
- To ensure that post-Kyoto frameworks are effective on a truly global scale, the following two points must be satisfied and used as conditions for creating new frameworks:
  - a) There should be obligations to reduce or restrict emissions with the participation of major emitters such as the United States, China, and India.
  - b) Efforts made previously to restrict emissions should be considered when setting targets for reducing or restricting emissions. For example, there is a need for rules to make it possible for the lowest specific greenhouse gas emission units\* attainable in different branches of industry and product fields to be achieved within a specific period by each country in the framework.

[\*An indicator obtained by dividing emissions of greenhouse gases such as carbon dioxide and primary energy consumption, etc. by production quantities. It indicates the effectiveness of production activities. Examples include “criteria for specific energy units of steel products” in the case of steel, “criteria for thermal efficiency of newly established thermal power stations” in the case of electric power, and “criteria for fuel costs and gas emissions of automobiles” in the case of the automobile industry.]

- A comparison of efficiency in the 25 nations of the European Union and Japan shows that consumption of primary energy in Japan per GDP is around half that of the EU nations. Thus, Japan needs to promote greater efficiency of the use of machinery and production technology in other countries on the basis of the results of effective

regulations, etc. This will facilitate the diffusion of the regulations on a global scale. It will also give Japan insight into ways to provide internationally effective support.

- In addition, Japan should play an active role in the formation of a system of international cooperation to help achieve an optimal energy supply and demand structure. This structure should be one that simultaneously supports both the environment and the economy on a global scale in ways such as expanding energy-saving and the use of nuclear energy and recyclable energy as well as the advanced use of fossil fuels. In addition, a practical system of incentives needs to be built that makes use of the dynamic approach that companies demonstrate toward technical innovation. The incentive system should also make it possible for companies and consumers to make wise choices in connection with the environment.

## **1. Foreword**

The first period of mandatory provisions under the Kyoto Protocol will go into effect in 2008. However, little progress has as yet been made in Japan with regard to discussions on post-Kyoto international frameworks to be put into place from 2013 onward (hereafter referred to as “future frameworks”). A G8 summit will be held in Japan in 2008 after one in Germany scheduled for June this year. The Japanese summit in particular is likely to be at an important time, when a decision will have to be reached about the orientation of future frameworks. Consequently, a consensus needs to be reached within Japan if we are going to convey a clear message to other countries and play a leading role in this connection. Work is under way at present on reviewing the plan aimed at attaining the targets set by the Kyoto Protocol. However, in parallel, a debate needs to be started as soon as possible in connection with the future frameworks. Moreover, it is essential to establish a clear direction for policy not concerned merely with emission reductions in Japan but also on a global level.

In light of these conditions at home and abroad, we wish to take this opportunity to present our opinions concerning the major points at issue in connection with the future frameworks. Our aims are to refine and to come closer to attaining the “Eight Proposals for Overcoming the Problem of Global Warming” compiled by the KEIZAI DOYUKAI in December 2004.

## **2. Assessment of the Kyoto Protocol and reflections thereon**

The Kyoto Protocol is the first step on the road to solving the problem of global warming, one that needs to be tackled worldwide and from a long-term perspective. As such, the Protocol has proven highly useful in raising worldwide understanding and interest in the problem of global warming. In Japan too at present, the Protocol is providing the impetus for the public and private sectors to work together on decreasing emissions of greenhouse gases.

On the other hand, it is common knowledge that the frameworks of the Kyoto Protocol are, in practice, insufficiently effective as regards reducing emissions around the globe. The United States, which is responsible for a quarter of worldwide emissions of carbon dioxide, is not taking part in the Protocol. In addition, others among the largest emitting countries, such as China and India, are under no obligation to reduce their emissions.<sup>i</sup> This means that only around 30 percent of worldwide carbon emissions are being covered by the Protocol. Moreover, even if the nations that are under an obligation to reduce their emissions achieve their designated targets, the rate of reduction will still average only around 5 percent annually, meaning that the amount of reduction will be no more than around 1.5 percent of worldwide emissions. In addition, the countries that account for the remaining 70 percent of carbon emissions are under no obligation to decrease their emissions. As a result, they are all likely to increase their emissions. Trial calculations show that worldwide emissions of carbon dioxide will therefore increase by 40 percent in 2010 in comparison with emissions in 1990<sup>ii</sup> and are set to increase by 1.7 percent per year up to 2030.<sup>iii</sup> Any future quotas must take these matters into consideration and incorporate effective measures that will ensure that emissions are reduced on a global scale.

The Kyoto Protocol includes countries such as Russia that have a certain amount of leeway as regards their emission quotas even if they make no efforts to reduce emissions. There is thus enormous unfairness in terms of the initial distribution of emissions quotas.<sup>iv</sup> Furthermore, use of the year 1990 as the standard year on which targets are based appears to favor the United Kingdom, where energy conversion from coal to natural gas proceeded apace during the 1990s, and Germany, which achieved unification between East and West in 1990. According to trial calculations carried out

by the Intergovernmental Panel on Climate Change (IPCC),<sup>v</sup> marginal reduction costs involved in achievement of the Protocol targets amount to \$331 per ton of carbon for Japan, \$211 for European nations, and \$178 for the United States. This indicates a highly inequitable burden from country to country. It is thus evident that it is extremely difficult from the standpoint of fairness to set caps on emissions applicable to specific countries or companies. There is little incentive to abide by rules that generate a sense of unfairness. It is obvious that such rules are going to be ineffective as a result.

### **3. Preconditions for future frameworks and Japan's roles**

On the basis of the above, the first precondition for any future frameworks must be to ensure that the main emitting nations such as the United States, China, and India are obliged to reduce or restrict their emissions to ensure that the reduction of emissions can be assured on a global scale. For its part, Japan should study and come up with proposals for frameworks that allow for the participation of the United States, China, and India. Second, as regards fixing targets for reducing or restricting emissions, it is essential that the rules be formulated in such a way as to facilitate participation by as many countries as possible and that they reflect past efforts made to reduce emissions. For example, a system should be adopted whereby the lowest specific emission units for greenhouse gases<sup>vi</sup> that can be attained by individual branches of industry and product categories are set as target values. In addition, reports should be made in accordance with the conditions applicable in each country taking part in the framework for the period during which the targets are in effect. The rules thus need to be set so as to ensure that reduction in emissions worldwide is indeed possible on the basis of a system that ensures fairness among nations.

Important keys to ensuring that emissions are effectively reduced on a truly global scale on the basis of the preconditions set above are the diffusion of highly efficient machinery and the transfer of technology. The European Union has recently come up with proposals for reducing emissions. However, a comparison between the 25 nations of the European Union<sup>vii</sup> and Japan in terms of efficiency shows that consumption of primary energy by Japan in accordance with GDP is around half that of the European nations.<sup>viii</sup> On the basis of stringent restrictions, Japan is moving ahead with

introducing greater efficiency into machinery, including automobiles and electric products, and into production technology. Diffusing such machinery and technology around the world is likely to make a significant contribution to reducing greenhouse gases.

Japan has also made enormous contributions to developing countries, including China, through environmental ODA, etc.<sup>ix</sup> In connection with environmental fields involving measures to combat global warming, it will be necessary to examine how aid can be most effectively provided on the basis of conditions applied to emissions of carbon dioxide on an international level and other such considerations.

The problem of global warming is the other side of the coin from the problem of energy supply and demand. However, from a long-term perspective, we also need to tackle, in parallel with the question of future frameworks, the question of establishing a system of international cooperation that will make it possible to achieve an optimum energy supply and demand structure. The structure must be able to support the global environment and economy by reducing energy consumption, expanding the use of nuclear power and renewable energy sources, and making more advanced use of fossil fuels. Japan occupies a leading international position in terms of efficiency of energy use. Having achieved a viable consensus of opinion within the country, we should confidently put forward proposals to deal with this issue and play a highly positive role.

#### **4. Conclusions: Renewed awareness of the importance of the problem of global warming**

It seems that the European Union has recently been giving maximum priority to global warming from among the various problems besetting the world<sup>x</sup>. In addition, the United States has been gradually changing in this respect since its mid-term elections in 2006. However, one cannot but feel highly apprehensive about the extent to which the urgency of global warming is being debated in Japan and indeed the extent to which a consensus has been obtained among the Japanese people.

On the other hand, it should not be forgotten that the world is facing serious problems of the same or even greater magnitude than global warming. It is therefore

necessary to ensure that the limited funds and resources available to combat global warming are directed efficiently. We believe that, just as in other countries all over the world, measures to combat global warming in Japan should be dependent upon achieving a balance between economic growth and energy security. On a domestic level, after returning to the starting point and attaining a renewed awareness of the importance of global warming, we need to achieve a consensus concerning international frameworks while debating how to achieve an effective balance with economic growth.

As regards the international frameworks, having reached agreement on long-term targets such as the specific emission units for greenhouse gases that should be achieved by each country, we need to come up with reduction targets presupposed upon maximum effort. In addition, a system of international cooperation needs to be established that does not impose penalties on countries that find it difficult to reach these targets. Instead, the system should ensure international support in ways such as the Asia-Pacific Partnership on Clean Development and Climate (APP).

With a view to solving global warming, we do not simply need regulations that include a system of penalties based on a top-down approach as has been evident in recent international debates or rules initiated by the European Union. Rather, we need to construct a practical system of incentives that makes use of the dynamism exhibited by companies in connection with technical innovation. It should also offer favorable taxation measures, for example, by facilitating wise choices to be made by companies and consumers in connection with the global environment. Also, a system of trading in domestic emission rights should only be introduced if it is designed in such a manner that it does not impose unfair restrictions on economic growth and corporate activities.<sup>xi</sup>

We intend to study these matters in a practical manner on the basis of the standpoints outlined above.

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This statement is elaborated by Committee on Global Environment and Energy Policy of KEIZAI DOYUKAI. The committee, which has a membership of eighty-three, is chaired by Mr. Fumio SUDO, Vice Chairman of KEIZAI DOYUKAI and President & CEO of JFE Holdings, Inc..

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<sup>i</sup> Figures for emissions of carbon dioxide in 2004 had the US at 22.1%, China at 18.1%, India at 4.3%, and Japan at 4.8%. (Calculated on the basis of the Institute of Energy Economics Japan, *Enerugii Keizai Tokei Yoran 2007* [2007 Survey of Energy Economics]).

<sup>ii</sup> Trial calculation made by the US Department of Energy.

<sup>iii</sup> IEA *World Energy Outlook 2006*. Under the reference scenario, carbon dioxide emissions in connection with global energy will increase by 55% between 2004 and 2030 (average annual rate of 1.7%). The alternative policy scenario, which assumes implementation of policies aimed at reducing carbon dioxide emissions and related measures, estimates that the increase will be 39% (annual rate of 1.3%).

<sup>iv</sup> Yamaguchi Mitsutsune's *Kaiteiban kankyo manejimento chikyu kankyo mondai e no taisho* (Environmental management: Response to global environmental problems, revised edition [2006]) was consulted in this regard.

<sup>v</sup> According to the 3<sup>rd</sup> Assessment Report of the Intergovernmental Panel on Climate Change (2001).

<sup>vi</sup> An indicator obtained by dividing emissions of greenhouse gases such as carbon dioxide and primary energy consumption, etc. by production quantities. It indicates the effectiveness of production activities. Examples include "criteria for specific energy units of steel products" in the case of steel, "criteria for thermal efficiency of newly established thermal power stations" in the case of electric power, and "criteria for fuel costs and gas emissions of automobiles" in the case of the automobile industry.

<sup>vii</sup> Bulgaria and Romania joined the European Union in January 2007, meaning that the EU now has 27 member nations.

<sup>viii</sup> Figures for 2004 show that primary energy consumption by Japan on the basis of GDP was 54.5% that of the 25 members countries of the European Union. (Calculated on the basis of the Institute of Energy Economics Japan's *Enerugii Keizai Tokei Yoran 2007* [2007 Survey of Energy Economics].)

<sup>ix</sup> Bilateral environmental ODA projects involved aid expenditures of between ¥270 billion and ¥430 billion a year between 2001 and 2005. (According to Japan's Ministry of Foreign Affairs' *ODA White Paper, 2006*.)

<sup>x</sup> The UN's Millennium Development Goals (2000) specify eight issues that need to be tackled on a prioritized basis, namely, eradicating extreme poverty and hunger, achieving universal primary education, promoting gender equality and empowering women, reducing child mortality, improving maternal health, combating HIV/AIDS, malaria, and other diseases, ensuring environmental sustainability, and creating a global partnership for development.

<sup>xi</sup> From the KEIZAI DOYUKAI's *Kyoto Giteisho mokuhyo tassei keikaku (an) ni taisuru iken* (Opinions on plans to achieve the targets in the Kyoto Protocol [April 13, 2005]).