Complying with Kyoto toward further GHG reductions

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Kiko Network

Discussion Paper

Introduction

Nearly six years have passed since the adoption of the Kyoto Protocol, and the first commitment period, which begins in 2008, is only four years away. With the steady passage of time, the acceleration of climate change is increasingly apparent. Following on the heels of the recent large-scale floods in southern Africa (2000) and in Europe (2002), 2003 saw extreme weather events occur around the globe at an alarming rate. The heat wave in Europe, which resulted in as many as 10,000 deaths in France, large floods in southeastern China, forest fires in southern Europe and in the South America - and the list goes on. If climate change continues at this pace, it is predicted that both the severity and frequency of these extreme weather events will increase. We can no longer allow the continued delay of the action to prevent climate change.

As the first step toward addressing the issue, the countries of the world together entered the implementation stage of the Kyoto Protocol. However, the United States withdrawal, Australia's subsequent decision to following suit, and Russia's delayed ratification have prevented the Protocol from entering into force. As a result of this, there has been a conspicuous renewal of efforts by the opposition to weaken climate change prevention efforts both abroad and in Japan. Although a few measures of Japan's climate change policy are being implemented, the policy as a whole is inadequate, and highly effective policies remain on the back burner. As we face the 2004 evaluation and review of the government's Guideline of Measures to Prevent Global Warming (government climate change policy package), the current policies require serious reconsideration. In addition, international negotiations regarding the next step of the Protocol, which is scheduled to start in 2013, are set to begin at the Conference of the Parties to the Framework Convention on Climate Change (UNFCCC) in 2005. In light of these upcoming negotiations, it is necessary to think the future architecture of climate change regime.

If we hope to prevent dangerous climate change, we must make steady, large-scale cuts in greenhouse gas emissions before it's too late. With this in mind, this paper offers some tools to identify the significance of implementation of the Kyoto Protocol and its development hereafter.

1. Climate change poses an immediate threat. Listen to what science has to say

(1) Climate change is already occurring and is growing more severe

The dangerous phenomenon known as climate change is occurring at a steady pace. According to the Intergovernmental Panel on Climate Change (IPCC), it is clear that human activities are the cause of climate change. The IPCC has indicated that there is a high probability that climate change will reach severe levels in the future, and has predicted that the globally averaged surface temperature will rise at a previously unheard of rate, reaching temperatures 1.4 to 5.8℃ higher than the 1990 level over the next 100 years (Fig. 1). As a result of this, tens of millions - or perhaps billions - of people will suffer from the damages of this rise, in the form of sea levels rising, water shortages, coastal flooding, and other negative impacts on human health and food supplies.

The IPCC has also pointed to the possibility of large-scale, irreversible changes occurring, including the large-scale collapse of Greenland's ice sheets, changes in the speed of ocean circulation, and the mass release of methane from Siberian permafrost.

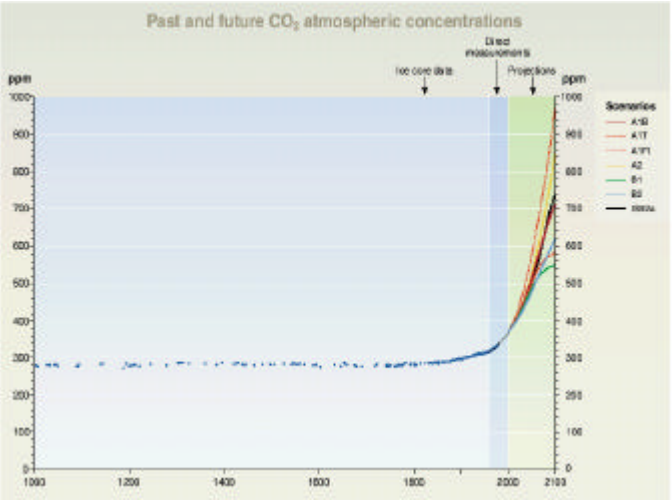


Figure 1. Past and CO_2 atmospheric concentrations

(2) Severe damage could result from even a 1 – 2℃ change[1]

Based on assessment of the IPCC and others, the damage resulting from even a 1 – 2℃ rise in global mean temperature could be enormous. Still more alarming is the time lag between greenhouse gas emissions and the resulting rise in atmospheric temperature and sea level. Even if we were to begin making large cuts in greenhouse gas emissions, past emissions could in the future result in an unavoidable rise in temperature of 1℃ or more (Fig. 2). This warming, which is certain to occur, will magnify agricultural damage and water shortages in developing countries, as well as increase risks to human health. It will also bring out irreversible damage to ecosystems. This is no longer an "acceptable" level of risk. It is clear that steps must be taken immediately.

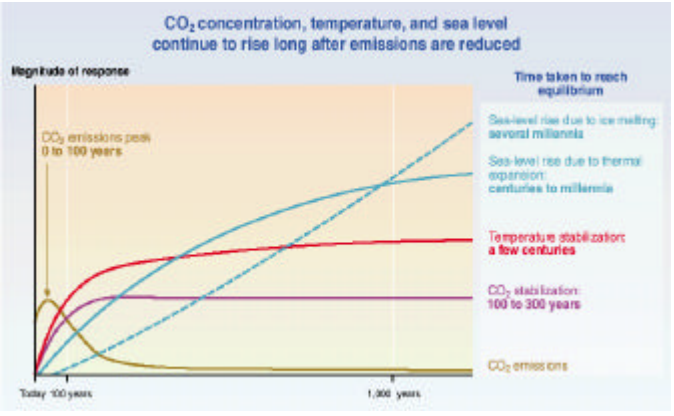


Figure 2. CO_2 concentration, temperature, and sea level continue to rise long after emissions are reduced

※(Note: This figure is a generic illustration for stabilization at any level between 450 and 1,000 ppm, and therefore has no units of the response axis.)

[1] From the position paper "Preventing dangerous climate change" released by the Climate Action Network (CAN), a global climate change NGO. For details, please refer to http://www.climnet.org/pubs/CAN-adequacy30102002.pdf

(3) The uncertainty of climate system is no reason to delay action. Action based on the "precautionary principle" is needed

Uncertainty exists in climate model predictions of climate change. For this reason the degree of damage will no doubt vary with the rate and severity of climate change.

However, it is obvious that climate change is occurring as a result of human induced greenhouse gas emissions and that prediction of still higher atmospheric temperatures resulting from unabated emissions are sound. There are already sufficient scientific grounds for us to take action. While there still exist efforts to put off action based on the uncertainty of the science, the Framework Convention on Climate Change adopted in 1992 calls on the "precautionary principle" in Article 3.3, clearly stating, "Where there are threats of serious or irreversible damage, lack of full scientific certainty should not be used as a reason for postponing such measures (precautionary measures)…." Climate change is a problem that requires a timely response based on the precautionary principle. The reality is that for island nations, high latitude polar regions, and tropical countries, the impacts of anthropogenic climate change are painfully apparent. Furthermore, upon considering the large tab to be paid by future generations, anyone would agree that the decision to put off addressing the problem is utter folly.

(4) The "ultimate objective" of the Convention is stabilization of GHG concentrations at a level that would prevent a danger. To achieve this goal, urgent and large reductions are unavoidable.

The UNFCCC designates "the stabilization of greenhouse gas concentrations in the atmosphere at a level that would prevent dangerous anthropogenic interference with the climate system" as the "ultimate objective" (Article 2).

However, the current state of affairs seems to indicate that a temperature rise of 1-2℃, which is enough to cause a dangerous level of climate change, will soon be upon us. It is clear that our lackadaisical attitude will cause us to miss the window of opportunity for stabilizing concentrations to a level that does not pose a danger.

Stabilizing greenhouse gas concentrations even at a high level will require large emissions reductions, and even if this stabilization were achieved, adverse effects on the climate system would be inevitable. In its second assessment report in 1995, the IPCC warned that to stabilize the concentration of atmospheric CO_2 at the current level, emissions would have to immediately be cut by 50-70%.

It remains uncertain whether stabilization of CO_2 levels at "doubling above pre-industrial levels (CO_2 concentration of 550ppm," a level cited in the economic literature as an ambitious target, can be considered "safe" and effective in avoiding a dangerous degree of climate change. In fact, we cannot even say that low scenario of the IPCC resulting in a CO_2 concentration of 450ppm would be a safe level.

If we are to make serious efforts toward preventing climate change, we must carefully consider the above warnings and remind ourselves anew of the Convention's "ultimate objective." We must conduct sufficient investigation into what exactly constitutes a "level of climate change that would prevent a danger," and enact policies to stabilize concentrations at that level before it is too late.

It is essential that we recognize that what is required of us are urgent and large emissions reductions of levels previously unimagined.

2. The significance of the Kyoto Protocol - its importance as the only international framework for reductions

At the 3rd Conference of the Parties to the UNFCCC (COP3) held in December 1997, the Kyoto Protocol was adopted with the consensus of all Parties. Based on the established UNFCCC principle of "common but differentiated responsibility", the Protocol was the first of its kind to

assign mandatory greenhouse gas reductions on a country-by-country basis. The Protocol is the product of 10 years of UNFCCC negotiations and would not be possible without the hard work and long hours devoted by governments, international organizations, researchers, experts, NGOs and citizens. To this day it remains the world's only framework for the reduction of greenhouse gas emissions.

(1) Assigning mandatory reduction targets – achieving GHG emission reductions through absolute targets

One of the Kyoto Protocol's most significant accomplishments is numerical reductions targets that were agreed upon as a result of a series of tough negotiations. The significance of these targets is evident in the adoption by ratifying countries of various Protocol-inspired climate protection actions. Of course, the numerical targets were in the end the result of political compromise, and in terms of the large-scale reductions necessary for climate change prevention, they are thoroughly insufficient. The resulting distribution of responsibility among countries was also not ideal. However, the advancement of the Convention, which leaves emission reductions to the discretion of each individual country, and the assignment of mandatory reduction targets constitute significant progress, especially in that they demand concrete actions from participating countries. In particular, making the control of absolute emissions mandatory through the use of numerical targets and establishing a solid compliance system with binding rules for parties, are developments critical for encouraging countries to take meaningful steps.

(2) International consensus – a result of the U.N. process

Climate change is a problem of global scale that affects all the countries of the world. At the present, the only place for the nations of the world to discuss and solve such a global crisis is the United Nations. The Kyoto Protocol is a framework for preventing climate change, adopted with the consensus of 186 Parties during negotiations of the UNFCCC, and it remains the only international framework for dealing with the issue.

Despite their various economic situations and energy concerns, a diverse array of countries managed to agree on a framework restraining energy consumption, a decision that no doubt reflects the strong desire of the majority of the world's citizens to confront the problem of climate change. This agreement is a direct result of the U.N. process and is without a doubt historically significant.

Climate change, which is being caused primarily by the historical emissions of developed countries, has already underway. Furthermore, its effects are unfairly distributed, with negative impacts being felt in developing countries with low emissions levels. This trend of a small group of countries with high emissions causing damage to the global environment appears set to continue. To solve problems of this nature, it is absolutely necessary to build a negotiation environment that guarantees both the fair participation of all countries and a high degree of transparency allowing for NGO and citizen access. The U.N. has worked at this role, maintaining international order and providing a fair and transparent forum for discussion for a certain level. The Kyoto Protocol is the fruit of this effort.

(3) Realizing a "common but differentiated responsibility" – The obligations of developed countries and aid for developing countries

The developed countries, which have emitted tremendous amounts of greenhouse gases over the past, bear a heavy responsibility for climate change. At the same time, the expected rise in emissions of developing countries poses a grave challenge for the future. This notwithstanding, when emissions are considered on a per capita basis, even emissions giants like China and India fail to compare to developed countries. China's per capita emissions are 1/9 that of the U.S., while India emits merely 1/19 of the gases emitted per person in the U.S.[2] Furthermore, emissions of countries such as the U.S. and Japan continue to increase. In the face of such an obvious North-South disparity, the developed countries' insistence on reduction obligations for developing countries and failure to make sufficient efforts of their own can only be described as arrogant. In order to advance

[2] Source: Oak Ridge National Laboratory (2000)

worldwide climate change prevention, developed countries' leadership in acting to reduce emissions is indispensable.

The Berlin Mandate, agreed upon at COP1 in 1995, decided that the developed countries would be the first to take action under the Protocol. The Mandate, which adheres to the principle of "common but differentiated responsibility" as put forth in the Convention, is a fair approach that takes into account the North-South responsibility gap. The Kyoto Protocol likewise embodies these principles.

While the first commitment period of the Kyoto Protocol, which was agreed upon with the consent of developing countries, places no binding obligations on such countries, there are provisions for aid meant to assist developing countries in addressing climate change and in dealing with its adverse effects. These provisions are intended to encourage developing countries to take a step forward in efforts to address climate change and are a politically appropriate way of involving developing countries in the process.

(4) The Protocol is flexible and largely reflects the Japanese position

While the Protocol sets numerical targets, it is also quite flexible with regard to achieving these targets. The four years from the Protocol's adoption to the Marrakech Accords saw a process of increasing the flexibility (in other words, loopholes) of the Protocol's rules. Introduction of the Kyoto Mechanisms (Joint Implementation, Clean Development Mechanisms, Emissions Trading) opened the way for the use of projects in other countries and the use of "hot air," in effect easing the domestic reductions required of developed countries. In addition, carbon sinks were expanded to include forest management and others, and in what amounted to a renegotiation of the actual numerical targets, Japan, a vocal proponent of expanding forest-related credits, acquires excessive compromise which allows Japan to apply forest management to cover up to 3.9% of its 6% reduction target. In light of the Protocol's goal of reducing greenhouse gas emissions, this compromise presents a huge problem. Environmental NGOs have strongly criticized this expansion of carbon sink credits as the cause of significant relaxing of the Kyoto Protocol's numerical targets. In many respects Japan was particularly firm at wringing concessions out of other countries, and by taking advantage of the Protocol's loopholes, managed to considerably relax its 6% reduction target.[3] It therefore goes without question that Japan must honor its obligations under the Protocol's agreed-upon conditions, which were essentially forced upon the rest of the world at Japan's insistence.

(5) A crucial step toward even larger reductions

While the Kyoto Protocol is a significant achievement, it is by no means flawless. During the negotiations on the Kyoto Mechanisms, sinks, and compliance system that led up to the Marrakech Accords, the U.S., Japan, Canada, and other developed countries worked hard to expand loopholes and relax their assigned reduction targets. As a result, the targets decided upon at the Kyoto were substantially weakened, and the Protocol debuted with these modest figures. In particular, the Japanese government's hard-line attitude, wringing of concessions from the other countries, and significant damage dealt to the Kyoto Protocol are difficult to forget.[4]

However, the fact remains that implementing the Protocol and proceeding with reductions are an important step toward preventing climate change. Steadfast implementation of the Kyoto Protocol, including its strengthening at next stage and constant advancement of the previous debate, is the best and shortest way to achieve ever larger emissions reductions.

[3] The U.S. position has also been reflected largely. It could clearly be said that the U.S.'s withdrawal from the Kyoto Protocol is quite selfish behavior.

[4] At the resumed COP6 when negotiating the Bonn Agreement, Japan had resisted the Chair's text until the last moment, and rest of the countries of the world had to wait over night and be forced to compromise.

3. Compliance with the Kyoto Protocol – Honoring the nation's commitment

(1) The Protocol is still not in effect, but Russia's ratification appears probable

The Kyoto Protocol has repeatedly been threatened with disaster, and even now remains somewhat precarious. Through the breakdown of the Convention negotiations at COP6, the U.S.'s withdrawal, and the delay of Russia's ratification, the Protocol's proponents have forged on. It is now up to Russia to help bring the Protocol into effect, leaving the countries of the world at the mercy of the Kremlin's unpredictable moves.

However, there are indications that Russia will ratify the treaty. With the timing of ratification still unclear, the countries that have already ratified should not let this be an issue, but instead begin preparations for the Protocol's eventual coming into effect.

(2) The delay in entering into force of the Protocol is no reason for putting off domestic initiatives

With Japan's Upper and Lower House of the Diet unanimously adopting a resolution calling for the early ratification of the Kyoto Protocol in April 2001, the Japanese government ratified the Protocol in June of 2002, after the agreement of the Marrakech Accords. Ratification of the Protocol means that Japan as a nation is committed to achieving the 6% reduction target assigned to it in the Kyoto Protocol. The decision to ratify was a critical one, especially in light of the U.S.'s previous notification of withdrawal. Still, the Japanese government's refusal to compromise and wringing of significant concessions out of other countries during the Protocol's detailed rules negotiations left Japan with little reason to oppose the treaty.

However, the effects of the unforeseen actions of the U.S. and Russia have been felt in Japan as well, providing an opportunity for some in industry who were originally opponents of the Protocol to become more vocal in their opposition. Among these voices are those who put forth the irresponsible proposition that Japan should not go ahead with hastily conceived domestic policies just in case the Protocol does not come into effect.

At this point it is important to remember that Japan is a country that, by ratifying the Kyoto Protocol, made an international commitment to reduce its emissions by 6%. Not honoring this commitment is simply not an option; any position based on a misunderstanding of this fact is extremely problematic. Likewise, it is inexcusable for the government to allow its commitment to be affected by the behavior of other countries. No matter what the situation, Japan must honor its commitment to climate change prevention and the 6% reduction for which Japan itself accepted responsibility. Unfortunately, Japan's emissions have continued to increase since 1990, and the fact of the matter is that Japan's domestic measures must be accelerated, not put delayed. This is not the time to use Russia's indecision as an excuse to simply stand by and wait, but rather Japan must continue to promote its policies in advance of the Protocol's eventual coming into effect.

(3) Achievement of the target would have a powerful impact on the U.S. and developing countries

Achieving the Kyoto Protocol reduction targets will have a powerful impact on other countries. In particular, by promoting energy conservation and renewable energy, and the development of business models with consideration for the environment, Japan can take a meaningful lead over countries that have withdrawn from the Protocol like the U.S. and Australia. This also presents a chance to show the initiative for reductions to developing countries with no reduction obligations during the first commitment period of the Kyoto Protocol, thereby it could send a strong political signal to bring out future efforts for emissions reduction from developing countries and urge them to shift toward sustainable development. In addition, the various actions of working to meet the reduction targets will yield multiple beneficial outcomes for Japan, including a positive shift in the country's socioeconomic system and advancement of the technology that supports it, as well as a leadership role in environmental foreign policy.

4. What climate change policy means to Japan – formulating the next set of domestic measures

(1) Compliance with the Kyoto Protocol is unquestionable duty

Japan is one of the world's largest energy consumers, ranking 4th in terms of CO_2 emissions, and is therefore responsible for both the climate change that has already occurred and the climate change yet to occur. As one of the developed countries that have released greenhouse gases in mass quantities, Japan has an international obligation to lead the way in implementing emission cuts. Though the Kyoto Protocol is only a small step toward solving the problem, it is Japan's unquestionable duty to faithfully comply with it and make large emissions reductions by switching to an environmentally sound industrial structure. In addition, Japan, as the host country of the Kyoto Conference (COP3), should act as a model for the world by making definite progress in meeting the Protocol's objectives.

(2) Domestic changes brought about by the Kyoto Protocol

The adoption of the Kyoto Protocol in 1997 and its ratification by the Japanese government in 2002 sent a clear signal to all sectors in Japan as to the importance of climate change prevention measures. Within Japan, the Protocol has prompted various changes, from technological development efforts by industry (non-HFC refrigerators and fuel-efficient vehicles, promotion of energy efficient products such as low-energy facilities) to energy conservation initiatives and voluntary introduction of renewable energy by various actors, not to mention an increase in citizen and NGO involvement. It is fair to say that ratification of the Protocol, with its specific targets and clear objectives, was the motivating force behind these efforts.

(3) Implementing the Kyoto Protocol will boost Japan's ability to compete internationally

In the future, corporations that pay little heed to the environment will find it difficult to survive. While industry's current efforts to develop environmental technologies are impressive, still greater climate change initiatives, including the further improvement of energy efficiency and fuel conversion, are unavoidable and must be adopted in all aspects of business development. Though investment will be required in the early stages, the majority of energy conservation efforts will result in a reduction in energy consumption, and are therefore to the advantage of industry.[5] In addition, the development of energy efficient technologies will give Japan a competitive edge internationally, with such proactive efforts forming the base of Japan's future economic development.

Given the continued environmental orientation of the world, achievement of the Protocol's targets presents a valuable chance to boost Japan's ability to compete internationally. In contrast, going along with the United States is fraught with liability; the country will be held captive to the short-term profits of one segment of industry, the technological development essential for survival will be delayed, as will be the actions necessary to achieve a society structured to prevent climate change. Policies that take the initiative in addressing the climate change are certainly in the country's best interest.

(4) There is plenty of room for reductions

Though it has been years since we were first warned of climate change, Japan's industrial structure based on mass energy consumption has yet to show the slightest sign of change. Cutting back the number of unnecessary public works projects and increasing the lifespan of buildings are good examples of ways to make fundamental reductions in the amount of fuel and materials consumed. However, these options have barely been taken, and economic activities and individual behaviors that run counter to climate change prevention continue unabated. On the other hand,

[5] Most energy conservation measures for offices result in cost reductions due to a decrease in energy consumption, thereby paying for themselves in a matter of years.

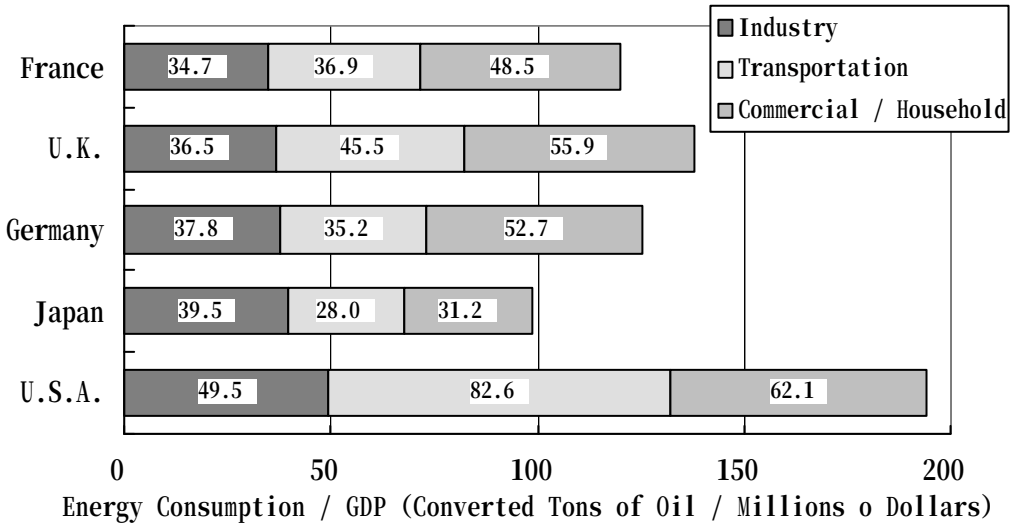
Japan's energy efficiency are relatively advanced compared to other countries, prompting the frequently heard comment that, "further reductions are difficult for the most efficient country like Japan." Still, a glance at the reality of Japan's mass energy consumption makes it clear just how wasteful Japan's current social and economic structure is. In fact, the amount of energy consumed per unit of production has increased since 1990. Furthermore, not all factories in Japan have achieved advanced energy-saving operations, nor have all offices introduced sufficient energy conservation measures. Those energy efficient products that have been developed have yet to reach the majority of consumers. Waste and inefficiency are rampant. There is clearly plenty of room for further energy conservation.

Despite the great potential for low cost reductions, a lack of appropriate policies and measures have prevented progress from being made. The majority of measures implemented up until now were created with very little heed paid to cost-effectiveness, or effectiveness of reduction, resulting in huge sums of money being invested in ineffective or, even worse, harmful policies. On the other hand, because the most cost-effective measures have rarely been employed, many low-cost, high-reduction measures are still available for implementation.

The government's current nominal policies have no future. Rather, Japan must craft effective measures to take advantage of areas of potential reduction and strengthen those existing efforts that are certain to make tangible contributions, and Japan must do this while keeping in mind that huge emissions cuts of 50-70% are required in the near future.

■The Myth about Japan's Energy Efficiency - Is it really No.1 in the world?

In terms of CO_2 emissions and energy consumption per unit of GDP, Japan ranks lower than most developed countries (see figure belows). Those in the industrial sector would have you believe that this is thanks to the contributions of industry. However, a look at the ratio of emissions per unit of GDP reveals that while the figures for Japan's commercial/household and transportation sectors are lower than countries of Europe and the U.S., Japan's industrial sector is on par with the other countries. What's more, we are often told that after the oil shocks of the 70's, industry in Japan made exceptional efforts to conserve energy. Yet a comparison of the change in energy consumption per unit GDP for Japan, Europe, and the U.S. from 1973 to 1990 reveals no significant difference between the rates of improvement for Japan and the other countries (both for the country as a whole and for the industrial sector alone). This indicates that the fabled efforts of Japanese industry were matched by efforts in other countries. [taken from Kiko Network's publication *Yoku Wakaru Chiky Ondanka Mondai, Kaiteiban* (Understanding Global Warming, Revised Edition)]



[Source : OECD/IEA, Energy Balances of OECD Countries 1997-1998, (2000)]

(5) Promotion of renewable energy

Japan is a country lacking fossil fuels but rich in renewable energy sources. By responding to the problem of climate change, we have a chance to build a society based on new energy sources. When considering the problems presented by both climate change and resource depletion, it is clear that the solutions lie in making the most of renewable energies derived from renewables such as solar, wind and biomass. At the same time we must make cuts in greenhouse gases through the introduction of broad energy conservation measures, as making a bold shift to an energy supply based on renewable energy. This shift will help to foster a new energy industry in Japan, develop a trustworthy and competitive energy market rooted in sustainable development, and contribute to Japan's economic development. In contrast, Japan's current energy policy has no such clear vision for the future, and instead persists in giving priority to nuclear power while paving the way to an insecure future.

Lastly, although nuclear power has been recognized as non- fossil fuels energy, it is a technology for which waste disposal remains an outstanding problem, with radioactive waste posing an environmental threat far into the future. Nuclear power cannot be considered sustainable, and is therefore simply not an option.

(6) An immediate strengthening of domestic measures is indispensable, beginning with a carbon tax

Japan's total greenhouse gas emissions for the 2001 fiscal year (1299Mt-CO_2) showed a 5.2% increase compared to the Protocol's baseline year (1990), and an increase in CO_2 emissions of 8.2%. Under Japan's current Guideline of Measures to Prevent Global Warming, the 6% reduction designated in the Kyoto Protocol remains far out of reach. Continuing on this track will jeopardize any hopes of achieving the Protocol's reduction targets. It is therefore apparent that an immediate strengthening of policies is essential in order for Japan to honor its commitment to a 6% reduction, a small first step in what promises to be a long series of climate change prevention measures.

The government's Guideline of Measures to Prevent Global Warming adopts a step-by-step approach (Figure 3), which includes an evaluation and review every few years. Unfortunately, this approach makes it difficult to introduce new policies during the years in between evaluations, and has in fact been used in recent years as an excuse to put off new initiatives. At next year's (2004) evaluation we must make up for lost time and delays by conducting a fundamental reconsideration of the Guideline and by introducing anew highly effective policies and measures. These will no doubt include various policies in the form of regulations and economic instruments, environmental labeling, and other specific measures to each sector. One measure of particular importance is the introduction of a carbon tax, which is one obvious step to be taken in the ecological tax and fiscal reform. A carbon tax, which contributes to the reduction of emissions by raising the cost of fossil fuels, should be made the centerpiece of a fundamental change in climate change policy. The introduction and implementation of effective policies during the Guideline's second phase is critical for meeting the reduction target designated in the first commitment period of the Kyoto Protocol. When thinking of the steps that must be taken – the improvement of material stock, and development of energy efficient appliances, cars, houses, buildings and production facilities for such goods – it is clearly that we can no longer put off action.

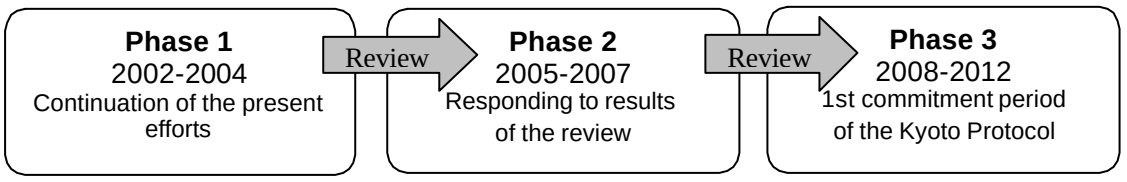


Figure 3. The government's step-by-step approach

5. Considering the way forward [6]

The basis of the next decades' climate regime relies on bringing the Kyoto Protocol into force and complying with the reduction target of its first commitment period from 2008 to 2012. With this precondition, negotiations for the next step of the Kyoto Protocol starting from 2013 should respect the results obtained from the lengthy 15 years process of negotiations. The next stage should therefore be constructed upon the Kyoto Protocol, which is a currently existing framework, and proceed from there in considering the future developments.

(1) Building the next commitment upon the framework of the Kyoto Protocol

During the negotiation process of the Kyoto Protocol, almost all of the points of contention were discussed. As a result of this, the Kyoto Protocol contains important elements that should be preserved. These include mandatory targets to control greenhouse gases emissions within a certain timeframe, establishment of a solid compliance system, incorporation of an aid system for climate change mitigation and adaptation measures in developing countries, and allowing for flexibility in meeting the targets. In addressing the next step of the subsequent commitment period, there is, of course, no reason to change this basis upon which to work. Broader discussions should be initiated to press for the U.S. participation and developing countries' involvement, while at the same time encouraging efforts to compensate for the limits or shortcomings of the Protocol and to improve its effectiveness. There are those who would prefer to go back to square one of the negotiations and construct a totally new framework apart from the Kyoto Protocol. However, this is not only a time-consuming proposition, but also increases the risk of moving backwards by making concessions to the U.S.

There is no alternative to the Kyoto Protocol. Building the next step upon the Kyoto Protocol is the only realistic approach for enabling the countries of the world to cooperatively tackle climate change over the long term. The important elements to consider in the next stage are as follows.

(2) Realizing larger emission reductions

- **Set long term targets to realize the "ultimate objective" of the Convention**

The climate regime under consideration should be constructed to achieve the "ultimate objective" of the Convention. Reduction targets agreed upon in the Kyoto Protocol are remarkably weak compared with what is necessary to reach the "ultimate objective." As stated above, given the fact that dangerous climate change will not be avoidable with even a 1-2℃ increase of global mean temperature, it is clear that urgent and bold reduction action should be taken. From a long-term perspective, it is important to have a concrete long-term target to envisage how urgent reductions are and to what level greenhouse gas emissions have to be reduced, and to pursue a path to stabilize greenhouse gas concentrations before it is too late.

- **Set high reduction targets based on the "precautionary principle"**

There is a high probability that future climate change will reach very serious levels. What is important for preventing dangerous climate change is to take action based on the precautionary principle. Taking into account of the remaining uncertainty, it is necessary that targets be set sufficiently high so as to prevent possible warming-induced damage.

- **Set targets that enable the reduction of total greenhouse gas emissions**

Various approaches for target setting have been argued and proposed. It is an area in which further considerations are required in the coming years. Any methods of target setting, however, have to involve the reduction of an absolute amount of greenhouse gas emissions.

[6] "Equity" is identified from diverse dimension. The way of using this word is very different from groups. In Japan, only equity on marginal reduction cost is often paid attention and other important notions of equity are notconcerned or referred. In this paper, notions of equity that we think important are touched upon.

The Climate Action Network, a global NGO network, believes that in order to prevent dangerous climate change,

- Global mean temperature increase should be no greater than 2℃ higher than pre-industrial levels, with the temperature being reduced as rapidly as possible after peaking.
- A peak in global emissions should be within the next 20 years and decline quickly thereafter.

(3) Ensuring an equitable approach

- **Initiative of developed countries in leading the action and their efforts to make further reductions**

Needless to say, developed countries, which have consumed limited natural resources in mass quantities, have to meet the target of the first commitment period to fulfill their responsibilities. They also should take the initiative in taking actions toward reductions in the following period. In particular, the efforts of countries like the United States, Japan, Canada, and Australia, where emissions have continued to increase compared to 1990 levels, are indispensable. Their actions are key to encouraging developing countries to also make efforts.

- **Support developing countries' sustainable development and measures to mitigate the effects of climate change**

There are a considerable number of people in developing countries that do not have access to affordable energy services, livelihoods, food security, water, health, and other basic human needs. Given this fact, satisfying those needs should be our first priority. Furthermore, compared with developed countries, many developing countries are finding it difficult to address climate change because of a lack of adequate financing, technologies and human resources. Sufficient financial support and capacity building through the transfer of technology are necessary for such countries, which are currently in the midst of development. It is especially important that developing countries not pursue the unsustainable path that developed countries have taken.

- **Support developing countries vulnerable to climate change**

The harmful impact of climate change is not only a matter of concern for the countries directly affected, but also a matter for the developing countries responsible for climate change. A global solution to the problem needs to include adequate support from developed countries to fund adaptation measures taken in developing countries. Strengthening of the funds[7] established at the Marrakech Accords is essential in practice, and the system has to be institutionalized in an even more effective manner.

- **The U.N. process as the axis of a global solution**

Climate change is a question of adaptation to the impact for small countries, as well as reductions for the large emitting countries. As a matter of course, the process of negotiating a future framework should be, just as it has been, conducted at the U.N., which will assure the equitable participation of all countries and a transparent process. The U.N. process centers around governmental negotiation, but at the same time, it is also important to mention that the U.N. process is open to the public and to NGOs. In this sense, the Kyoto Protocol could be identified as an effective regime that was agreed upon through the U.N. consensus-building process while maintaining international order. A decision-making process outside the U.N. could be considered only if it is an additional process with an aim to reinforce that of the U.N. No other framework will be able to replace the U.N. process.

(4) Improving the Protocol's effectiveness

- **Make targets mandatory and establish a solid compliance system**

The significance of the Kyoto Protocol lies in its ability to overcome the limitations of the voluntary nature of the Convention, and to set mandatory targets to regulate total emissions. As

[7] These are; special climate change fund, least developed countries fund, and adaptation fund

mentioned above, it works to bring about concrete actions in various countries. While a voluntary approach might able to contribute to the limitation of greenhouse gas emissions to some extent, it is not enough for reductions of the level necessary. Moving backward to voluntary targets for the next commitment period is, of course, not an option. A strong compliance system with measures to urge and enforce Parties' compliance is also indispensable.

- **Bring the United States back on board**

Any approach to combating climate change that does not include the U.S. will not be fair and will be of limited effective. It is absolutely necessary to get the U.S. back on board for the next step. It will not, however, be an easy challenge, judging from the current performance of the Bush administration. Various levels of diplomatic effort all over the world are expected in order for U.S. to come back on board, but the best way to make it happen is for Japan and the EU to move forward and take the initiative in implementing the Kyoto Protocol. This will create an international society in which the U.S. will be at a disadvantage as long as it does not participate.

If the rest of the countries pay too much heed to the current U.S. position, which allows business-as-usual emissions to increase for the next decade, the next step of the Protocol could easily end up totally inadequate and ineffective at preventing a dangerous level of climate change. This could even weaken the efforts of other countries. It has to be thoroughly recognized that by compromising with the U.S., we run the risk of taking a serious step backward from the objective of climate change prevention. Therefore, the way to reach an agreement should be to, first of all, consider what is necessary to prevent climate change from a scientific perspective, next to spell out these conclusions, and finally to continue working to bring the U.S. back to the Kyoto regime.

- **Urge developing countries to take action**

Efforts to address climate change on the part of several developing countries is quite important for the preventing of a dangerous level of climate change, and further steps on their part are expected. Nevertheless, as mentioned above, developed countries must first take the initiative to make this possible. Without seeing reductions from the large emitters like the U.S., Japan, Canada and Australia, for which emissions are still above their 1990 levels, it will be very difficult to involve the developing countries. Japan, which saw CO_2 emissions for fiscal year 2001 increase 8.2% over its 1990 level, is clearly required to take significant efforts. Japan has to recognize that it is not qualified to demand the participation of developing countries at this stage.

2005 is a year when developed countries have to show demonstrable progress of their implementation of the Kyoto Protocol. It is going to be an important occasion for assessing the accomplishments of the developed countries actions, followed by a consideration of whether or not we can start negotiations on the participation of developing countries. It is also necessary to have concrete proposals for the support scheme from developed countries to developing countries. Without fulfilling these conditions, it is not realistic to jump-start negotiations with developing countries regarding their participation. Similarly, it is only after fulfilling the above-mentioned conditions that we can start consideration about how and to what extent the emissions of developing countries should be limited.

(5) Japan needs to have a more constructive position

- **Set a long-term target**

The Japanese government ratified the Kyoto Protocol and promised to comply with 6% reduction target. However, it doesn't have a clear position on to how much it aims to reduce greenhouse gases after that. At the very least, Japan must have a vision for how it plans to implement climate policy for mid- and long-term by 2050 or so, and have a long-term reduction target for which to aim. Publicly announcing these messages will provide significant help to the various sectors' recognition of the necessity of climate change prevention. Naturally, long-term targets must be of a level to achieve the "ultimate objective" of the Convention, which should be something in the range of a 60-80% reduction.

- **Announce a higher reduction target for the next step**

Japan's reduction target for the next step should be able to lead to drastic cuts, leading the way toward a long-term, still higher target. Needless to say, a target lower than that of the Kyoto Protocol is out of the question.

- **Contribute to negotiations with a constructive position**

By constantly negotiation in Japan's own interest without having a long-term vision or an ambitious reduction target for the next step, Japan cannot take a leadership to the world. Through the negotiations up to the Kyoto Protocol and Marrakech Accords, Japan has been labeled as "the country that have worst negotiating position." But at the negotiations hereafter, Japan should make efforts to tell the world its constructive message and clear its disgraceful reputation as "the most environmentally backward nation."

■Interim report of the Global Environment Subcommittee disregards both the scientific trends of climate change and the Kyoto Protocol

The Ministry of Economy, Trade, and Industries (METI) Global Environment Subcommittee of the Environment Committee, Industrial Structure Council, released an interim report of its discussions regarding an international framework for climate change after the second commitment period of the Kyoto Protocol (beginning in 2013). There are serious problems with the report since it ignores the past negotiations on climate change and attempts to return the debate to square one.

(1) The report ignores how serious the consequences of climate change will be

It is common knowledge that in order to combat climate change, drastic cuts in emissions of greenhouse gases are a must. However, "Characteristics of the Global Warming Issue" in the report shows no seriousness and urgency of the situation, and only says that the mechanism of climate change is still uncertain. As we consider the next step, it is inevitable to discuss, based on real status of climate change, what degree of emission reductions are necessary in the long term in order to stabilize greenhouse gas concentrations. However, the report does not take into account long-term goal.

(2) The report ignores the U.N. process and the results of the Kyoto Protocol negotiation

It is true that the Kyoto Protocol is a product of compromises, with a lot of loopholes induced by the U.S. and Japan, but is the only international framework for approaching climate change, having the consensus of 186 Parties after the 10 years of conceivable arguments. We should explore the next step based such discussion on the Protocol. However, the report extremely emphasizes the Protocol's shortcoming and denies almost everything as if it was a failure. The report also attempts to nullify the U.N. process and hammers out the significantly inequitable direction that the major emitters of greenhouse gases exclusively lead future negotiation. We can't help but feel anger at the fact that the report presents the extremely negative views on the Protocol as Japan's view, although it is far from public opinion.

(3) No serious effort on drastic reduction for Japan

The report is very anachronistic to oppose mandatory action, recommending voluntary target. It abnegates responsibility of the country by saying that the reduction of greenhouse gases is beyond the government control. It also insists on reconsider quantitative regulation of emissions. In order to combat climate change, it is necessary to make large cuts of the "absolute amount" of greenhouse gas emissions and stabilize the greenhouse gas concentrations in the atmosphere. Thus, drastic reduction for Japan is imperative. However, the report does not bring further reduction for Japan in its view and gives perfunctory proposal.

Most of the committee members are mainly from industry group and adopt short-term perspective that aims to maintain the existing socio-economic model of mass energy consumption, hoping to profit along the way. As a result, there is no consideration about the heavy damage to developing countries and the large tab to be paid by future. Issuing a negative message, which nullifies the U.N. process and reflects the view of industry groups, overcoats the label of "environmentally backward nation" on Japan. Or course, it should not be a Japan's position and it will be necessary for Japan to take a positive position.

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