

Towards Distributive Climate Change Governance  
- A Way Forward Beyond 2012 -

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1. Forward

An international policy framework beyond the Kyoto Protocol does not mean that we should aim for a completely different approach to the Protocol. If we return to the fundamentals of multi-national agreements, there is nothing more difficult and costly than to dissolve agreements and policies that have been created by international consensus. The only way to create a framework that will surpass the Protocol is to follow the principles of Kyoto along with strengthening its measures on climate change. In the international discussions on a future global climate change policy framework, some countries have suggested to revoke the Protocol due to the withdrawal of the US from the treaty. The US, which is Japan's largest export market, does not hold emissions targets that are legally binding. Furthermore, China, which is Japan's largest import market, is also exempt from legally binding targets due to the principle of "common but differentiated responsibilities". Therefore, under these circumstances, it may appear that Japan is the only country that must suffer reduction commitments out of its major trading partners. As it is highly unlikely that a revolutionary approach will be created to replace the Protocol, and also considering the socio-economic implications of establishing a framework completely from scratch, it is best to take a gradual approach to create a new international framework.

In the first place, ever since the US's withdrawal, Japan should be reevaluating its diplomacy that is usually a wait-and-see policy towards the US. Japan must redefine its climate change policy and how to proceed with its environmental diplomacy. It must create a "soft-landing" policy yet, which also reflects a strong resolve. Although the US is opposed to Kyoto's cap and trade system, there is still a chance to influence its current policy in the mid-to-long term. If Kyoto's technical policies succeed, the US

may find a fresh interest in the cap and trade measures. The US may, furthermore, shift its policy if the current administration changes and there is conclusive evidence of the socio-economic impacts of climate change. In the past, many international agreements have gone through unexpected changes following major events or accidents. Japan must prepare itself well beforehand to deal with such scenarios by clarifying its position on climate issues. During the negotiations before Kyoto was enacted in 1997, many countries commented on how Japan was outwitted by the shrewd diplomacy of western nations. This is due to the fact that Japan had not conducted sufficient on-the-ground debate on how to prepare our society to cope with mitigating the process of global warming.

The European Union has defined clear rules for cap and trade measures that follow the provisions of the Protocol. It has set its ultimate emission control targets for the overall rise in air temperature within 2 degrees compared with pre-industrial levels.

<sup>1</sup>The US, on the other hand, has excluded itself from the confines of the Protocol for the time being, and has created its own measures as if dreaming for the revival of a post war regime of American supremacy. The US climate change policy is centered primarily on technological developments, and it is committed to bear this cost to a certain degree.

<sup>2</sup>In the meanwhile, there is no sign of greenhouse gas (GHG) emissions slowing down anywhere in the world, although the recent surge in oil prices may reduce GHGs temporarily. <sup>3</sup>It is, however, important to acknowledge that both of these aforementioned factors are not absolute. Under these circumstances, what should Japan do?

In the document introduced at the beginning of this paper, Dr. Murase advocates that the Ministry of Foreign Affairs should take the initiative in coordinating the commissions of both, the Ministry of Environment, and the Ministry of Economy, Trade and Industry. In addition, the initiative of the Cabinet Office is also important as we have seen during the time Japan served as the host nation during the 1997 Kyoto Conference, and thereafter, when the Prime Minister's Office took initiative in clarifying Japan's position on the Protocol, where the Cabinet secretariat played a central role. What is most important, however, is to conduct extensive national debate on the issues - not limited to the recommendations from expert commissions and line-ministries - in establishing Japan's climate change policy. Although the effects of global warming extend to various areas in society, it is the citizens, who are in the most vulnerable position, that are affected the most. This standpoint is especially important when considering how people must "adapt" their lifestyles to mitigate global warming. Businesses and industries will also be affected by climate change measures and will particularly play a

key role in alleviating global warming. Under these circumstances, what kind of domestic climate change policies and international frameworks must be formed? Germany, the Netherlands, and Scandinavian countries have been in the forefront in designing environmental policies in the EU. These countries have a system where there is a strong vertical link between each nation and the international community. In other words, its domestic climate change policy is in line with its environmental diplomacy.<sup>4</sup> Japan unfortunately, still lags behind in this aspect. In order for Japan to not be outwitted again by other nations in the future climate change policy negotiations, it must urgently create a policy formation framework that is truly sustainable.

I am not suggesting that the bureaucrats in Japan do not play a crucial role. There is no question that the role of the government and bureaucrats who are ultimately responsible for carrying out these policies is important. However, in light of the international situation where the demands for international frameworks have diversified, and a resolute environmental diplomacy is called for by Japan, it is particularly important that the government, the private sector, NGOs and researchers all take part in creating a sustainable policy. This is especially important in order to develop international discussions that are on-the-ground.<sup>5</sup>

The current international discussions on climate change recognize the need for the aforementioned multi-stakeholders to be involved in building climate measures beyond Kyoto. For “complex issues” such as environmental ones - in which many factors are interlinked - involving various stakeholders in the policy-making process is also in line with the concept of dispersed governance - which is establishing a social system where autonomous dispersed cooperation works best. According to current-day international relations, the state is ultimately responsible for ensuring that international frameworks are implemented domestically. The UN Framework Convention on Climate Change (UNFCCC) and the Kyoto Protocol shall be the basis for formulating cooperation and norms. On the other hand, we must also recognize the importance of various partnership initiatives when creating regulations for the management of complex issues. For climate issues which include diverse issues and realms, a structure must be created where the various functions of governance are directed to the most appropriate entity. The U.S.’s withdrawal from the Protocol has led them to create a similar framework, which is perhaps their greatest benefit of abandoning Kyoto to date.

The next chapter will focus on the details of the aforementioned structure.

## 2. The magnitude of this challenge: the preconditions for risk management

Before proceeding with this discussion, I would first like to review the magnitude and

seriousness of the situation on climate change. Article 2 of the Convention is an ultimate target that is used frequently for long term, global issues such as climate change. The ultimate objective of the treaty is the “stabilization of greenhouse gas concentrations in the atmosphere at a level that would prevent dangerous anthropogenic interference with the climate system”. As 189 countries including the US have ratified the treaty, we can say that Article 2 has reached an international consensus, and is applied by most signatories at present. <sup>6</sup>In other words, it aims to prevent climate change that reaches a critical level that is harmful to humans and the environment. But what is the definition of a critical level? The next step shall attempt to clarify this.

The European Union designated their definition of “critical levels” back in 1996, which is to maintain the earth’s average increase in temperature within 2 degrees compared with pre-industrial levels. This is the ultimate goal for climate change measures established in the EU. <sup>7</sup>In Japan, the special committee to the central environmental commission started discussions in 2005 by setting emissions targets within 2 degrees for the following reasons according to my understanding: If the target was set at 3 degrees, it is estimated that the damages will outweigh the benefits. The agricultural sector in various parts of the world will be afflicted, and vulnerable areas will particularly see an alarming rise in the number of human deaths. Furthermore, although uncertainties surround the science of global warming, evidence has shown that the probability has increased for irreversible damage and instability inflicted on the earth. If we regard placing minimum risk on the environment as most important, the magnitude of risk the world will face at the 3 degrees target is unacceptable. The recommendations of specialists on the actual cost of emissions reductions have also shown that the costs are enormous to reach a target of 1 degree - an amount that cannot possibly be met by many countries. Furthermore, if we consider the uncertainties on our current knowledge of the actual effects of global warming, it is best to examine the effects of GHGs calculated at 1 degree intervals. Since to differentiate the effects between 1.5 to 2 degrees, 2 to 2.5 degrees is difficult for now, the 2 degrees target will be used as the basis for the following discussions.

Since this debate has not reached a consensus in Japan, the definition of critical levels is still unclear. From a scientific and political standpoint, however, the 2 degree target will be used as the starting point of our discussions.

In order to achieve the 2 degrees target, how much GHGs must be reduced and by when? According to our research, by applying an energy/economy model called AIM/Impact[Policy], we calculated that in order to maintain the overall rise in air temperature within 2 degrees compared with pre-industrial levels, the level of carbon

dioxide in the atmosphere must be stabilized at 475ppm (refer to Diagram 1). <sup>8</sup>To realize reduction paths of 475ppm (Diagram 1: Right column) means that the earth as a whole must reduce its GHG emissions by half by 2050. This is, however, looking at the entire planet. In order to see the magnitude of the challenge Japan is faced with, it is important to break down specific targets for each nation. By defining the amount of possible emissions per nation, only then can we calculate the actual reduction figures that must be met by each country to realize the 2 degrees target.

Many people in developing countries still live on less than 100 yen per day and lack the basic necessities such as electricity and energy supplies. It is physically impossible to demand these countries to reduce emissions. In light of these differences, if we calculate the percentage of emissions reductions needed per country, we found that Japan must reduce its emissions by at least 60 percent by 2050. <sup>9</sup>Existing studies have also shown similar figures. <sup>10</sup>Furthermore, when looking at the mid-to-long term goals that have been established already per nation, many have set their reduction targets ranging from 60 to 80 percent. Even in the US, California has recently set reduction targets to 80 percent by 2050.

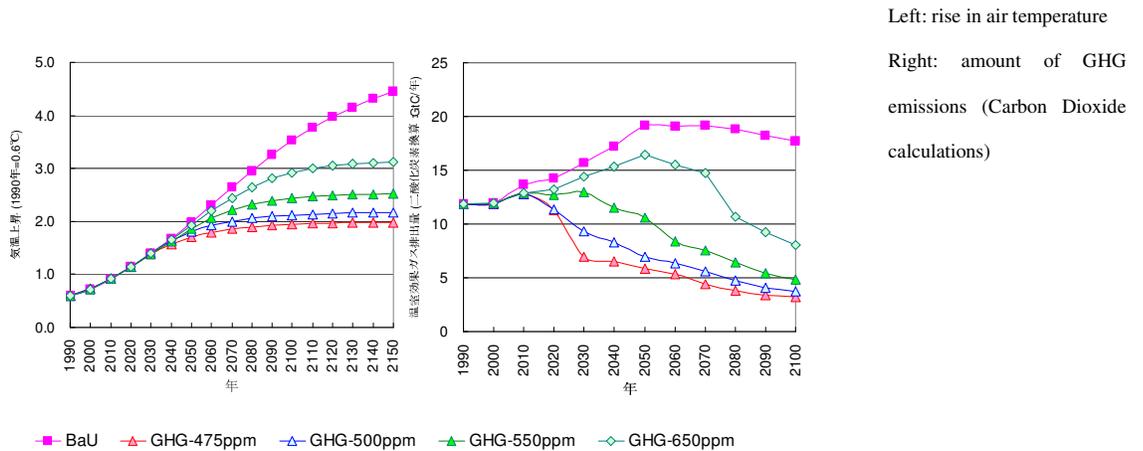


Figure 1 Results for AIM/Impact[Policy] Model

Figure 1 . Mid-Long term targets per country

Country/Date	Organizations setting targets and reports	Long-term targets	Mid-term targets
Germany (Oct/2003)	German Advisory Council on Global Change	<ul style="list-style-type: none"> <li>Overall rise in air temperature compared with pre-industrial levels: 2 degrees maximum.</li> <li>The rise in air temperature for the next 10 years: within 0.2°C</li> </ul>	45-60% reduction in CO <sub>2</sub> levels by 2050 compared with 1990 levels

	(WBGU)	• CO <sub>2</sub> concentration levels: under 450ppm	
Britain (Feb/2003)	Energy White Paper	CO <sub>2</sub> concentration levels within the atmosphere: under 550ppm	60% reduction of CO <sub>2</sub> emissions by 2050
France (Mar/2004)	The Government's Climate Change Commission	CO <sub>2</sub> concentration level stabilized under 450ppm	<ul style="list-style-type: none"> <li>• Reduce CO<sub>2</sub> emissions per person to 0.5tC by 2050</li> <li>• Reduce 3 billion tC of emissions per annum for the entire planet by 2050</li> </ul>
Sweden (Nov/2002)	Swedish Environmental Protection Agency	Stabilize concentration of all GHGs defined under the Kyoto Protocol: within 550ppm (CO <sub>2</sub> concentration within 500ppm)	Reduce CO <sub>2</sub> and GHG emissions per person to 4.5tC by 2050 in all industrialized nations and a continued reduction of emissions as becomes necessary (emissions are 8.3tC at present))
European Union (Mar/2005)	EU Environmental Commission	To maintain the overall rise in air temperature within 2 degrees, the concentration of GHGs to be stabilized under 550ppm	15-30% reduction by 2020 compared with 1990 levels in industrialized nations, and a 60-80% reduction by 2050

Source : Chart created by author based on various reports and policy papers

Aside from the small differences in these figures, what is important essentially is to recognize the reality of the seriousness and scope of the climate change issue. There is, of course, some scientific uncertainty since these figures have been calculated based on a supposition. Furthermore, there is still much to be debated concerning the 2 degrees target. Nevertheless, considering that Article 15 (the preventive approach) which was drafted at the Rio summit continues to receive international consensus when dealing with environmental issues, it is clear that substantial reductions of 60 to 80 percent are necessary by 2050. We must realize the gravity of the situation we are faced with. What's more, we must prepare ourselves to adjust our lifestyles in order to keep the overall increase in air temperature within 2 degrees compared with pre-industrial levels. In other words, when considering climate change measures, we must look at both reduction measures as well as methods on how society must adapt itself to realize these targets.

Next, I will discuss how to establish measures beyond the Kyoto Protocol.

### 3. Network type dispersed governance

As mentioned in the previous chapter, for climate change policies which are long-term, research on existing regulations will provide a basis for establishing the next phase of the international climate change system. Current research has shown that, in order to

solve highly interactive complex issues such as global environmental ones - in which the interests of many actors are involved - a regulatory framework that is moderate and multi-level, with a strong network structure works best. <sup>11</sup>In such a framework, key stakeholders such as the state, NGOs and businesses share information and carry out the functions necessary for governance. In other words, when solving issues that are essentially complex, although it may seem as though the regulatory framework and entities are complete in themselves, we must not forget that the problems are interdependent and that the entities are horizontally interlinked to one other (or even overlap at times). The most effective way to solve complex issues is, therefore, to create regulations aimed specifically for interdependent issues and to foster the networks between these stakeholders. <sup>12</sup>This will, furthermore, help ensure that the issues will be solved. For example, if one regulation becomes ineffective for some reason, this will not cause the entire system to break down.

Climate change governance should take a similar approach. In the first place, climate issues are complex, in which various issues are interlinked: Mitigating climate change is an issue which involves the increased use of renewable energy such as wind power, solar power, and biomass, as well as improving energy efficiency. Renewable energy also involves the development, diffusion and transfer of technology. Climate change is also linked to issues of deforestation, forest use, desertification, and biodiversity. Adaptation to climate change also concerns sustainable development issues in developing countries.

Such complex issues will involve various entities in its problem solving. In order to create an effective network between these stakeholders and increase synergies among them: the procedures necessary for good climate change governance must be established, the relationship between the stakeholders must be accurately understood, and the optimum regulatory structure must be developed. Under the current international agreements, for example, the state is ultimately responsible for consensus building and implementation of agreements, whereas industries should not be held responsible for this. Although some agreements established by the industrial sector may have a complementary function to international agreements, there cannot be structure to secure global public goods for agreements created by the interest-lead business community that would override international agreements. On the other hand, when looking at the financial mechanisms for climate change measures, private cash investments supplied by the business sector have a strong influence along with the public cash flows from national and international organizations. It is, therefore, important to create a regulatory framework - including both formal and informal cash flows - where the

functions for solving climate issues are defined, and the networks among stakeholders are promoted.<sup>13</sup>

Furthermore, taking the recent developments in the theory of “constructivism” into account, the development of governance where there is formal and informal networking will create a common understanding of “common knowledge” and “consensual knowledge”.<sup>14</sup> Good networking among stakeholders will create a chain reaction that will develop widespread knowledge and norms on climate change measures. As a result, this will create a dynamic form of dispersed governance. In other words, the structure of dispersed governance will play a key role in diffusing the norms of climate change. This is an important aspect particularly for climate change measures in the long run.

The current trend in international discussions on future climate change measures shows that there is no need to wait for the British Prime Minister Tony Blair’s proposal. As it can be seen, the direction of the current international discussions is not all pessimistic.<sup>15</sup> The US’s withdrawal from the Protocol, along with implementation of its own climate measures, may be seen as a process where the various initiatives on climate change are permeating and progressing into various sectors. What is important is not an outright “Yes or No” to Kyoto, but is to maintain the Protocol while developing other alternatives. This is an obvious choice given the history of how climate change measures were developed and also since the current international system holds the state responsible for the consensus building and implementation of international agreements and securing global public goods. A totally new framework to Kyoto may be considered if we find a way for nations to be responsible for emissions targets that are not legally binding, and a way to reduce GHGs assuredly. At present, however, an alternative to Kyoto is yet to be found. Hence, the best way to realize a reduction in emissions is to implement Kyoto along with other initiatives, and to create synergies among them.

The next chapter aims to look further into the details and the situation of international discussions on future regulatory frameworks.

#### 4. Initiatives beyond the UNFCCC and the Protocol Process

##### 4.1 The Convention and the Protocol Process

The international framework to discuss climate change will focus within the realms of the UN Framework on Climate Change (UNFCCC) and the Kyoto Protocol. Taking into consideration the state centered rule formation process, a key factor will be the future developments of the US and Australia - two countries that did not ratify the

Protocol, although they participated in the negotiations. One of the biggest challenges that lay ahead will be to explore ways to bring these two countries into the future climate change framework discussions while trying to achieve the goals of the Convention.

Article 3, paragraph 9 of the Protocol defines that states must start consideration of the next commitment phase at least seven years before the first commitment phase expires. As the first commitment phase will end in 2012, this means that the negotiations must start in 2005. As such is the case, it is anticipated that the Conference of the Parties to the United Nations Framework Convention on Climate Change (COP) will hold active, full-fledged discussions to explore future commitment issues which were initially discussed at COP 10 held in Buenos Aeries, Argentina in December 2004. At the COP10, a “seminar” on future developments of the framework was proposed in order to gather ideas and to prepare for future discussions. First of all, this seminar aimed to conduct “position mapping” through dialogue. Although the Articles that mention commitment issues are defined only within the Protocol, negotiations were held without limiting the discussions to Kyoto. This was done in order to provide an environment that would enable dialogue with non-signatory countries such as the US and Australia.. However, such dialogues which aimed for negotiations were strongly opposed by the US and Saudi Arabia. As a result, a Seminar of Government Experts was convened in May 2005. The seminar was held independent of any future negotiations, commitments, processes, frameworks and mandates under the Convention and the Kyoto Protocol. <sup>16</sup>26 countries, including the Japanese delegation, gave presentations in which many elaborated on the issues of the future of the framework.

The Kyoto Protocol came into effect on February 16<sup>th</sup>, 2005. This new regime would be the backbone of climate change governance with a multi-level and network structure. To be more specific, the Kyoto regime started within the UNFCCC framework. The Protocol depicts concrete international measures such as monitoring the progress of industrialized countries in achieving GHG emissions reduction targets which should essentially lead to realizing the ultimate targets. Kyoto also defines various functions to promote climate change governance including capacity building, financial mechanisms and monitoring. These functions will be undertaken by the appropriate and suitable entities (ideally) such as: corporate business initiatives through CDM, awareness raising activities by civil society organizations, reporting by the signatory countries and screening and assessment by international organizations. Like it or not, the international system of the Kyoto Protocol has started.

With the Kyoto Protocol’s entry into force, the Meeting of Parties to the Protocol

(MOP) was held alongside the COP meetings in November and December 2005, also referred to as the COP/MOP. With the clock ticking in face of a deadline in late 2005, the two week long negotiations centered on how to create an environment that would set the course for future action on climate change. Two agreements were created as a result of the marathon negotiations and consultations which ran from morning to night. Under Article 3.9 (future commitments) of the Protocol, Parties agreed to establish an “Ad hoc Working Group (AWG)” as a process for enhancing implementation of the Convention. On the other hand, discussions on a future framework which include countries that have not ratified the Protocol will be undertaken by “dialogue on strategic approaches for long term global cooperation to address climate change” in order that the negotiations will be carried out without prejudices to any future negotiations, similar to the conditions at the “Seminar of Governmental Experts”. The workshops will be convened four times during 2006 to 2007.<sup>17</sup>

As such, consensus building by entities such as the state, which is ultimately responsible for consensus building and implementation of climate change policies, will be promoted through the Kyoto Protocol – the core of the climate change regime that is composed of many layers- , and the Convention (also known as the meta-regime) that ranks highest within the climate change regime hierarchy.

In other words, the discussions on how to maximize the Kyoto framework within the confines of the Protocol were separated from the discussions of a generic, long-term climate change initiative that would involve the US and Australia..

#### 4.2 Initiatives beyond the Process

As the Convention and Protocol process continued to show developments, the preparatory processes of the Gleneagles G8 Summit and the Fourth Assessment Report of the Intergovernmental Panel on Climate Change (IPCC) confirmed findings on the actual progress of climate change. Furthermore, the effectiveness of climate change norms has brought on a situation where the international community can no longer continue to agree with the policies of countries that did not ratify the Protocol such as the US and Australia. In addition, there is strong international public opinion that these two countries - that are responsible for around one-fourth of the world’s CO<sub>2</sub> emissions - should not be exempted from the responsibilities of tackling climate change as a global effort. As such, ever since the US’s withdrawal from Kyoto, there has been continuous debate on how to bring the US and Australia into the future negotiations. As a result, various climate change initiatives have been established. These initiatives are not bound to the multilateral UN framework. Many of these initiatives take form

of a partnership by/among various entities including governments, and are called “Type II partnerships” which have been registered since the Johannesburg Summit. Many of these partnerships have been established under an international cooperation framework of voluntarily consensus that does not go through the process of international negotiations.

As a follow-up to the Johannesburg Summit, the Commission on Sustainable Development (CSD) reviews and monitors the progress and implementation on sustainable development areas. The focal areas during the period of 2006 and 2007 include energy for sustainable development and climate change. During a review session, the CSD found that out of the 319 partnerships, 25% focused on climate change.

<sup>18</sup>Initiatives such as the Asia-Pacific Partnership on Clean Development and Climate (AAP), Renewable Energy Policy Network for the 21st Century (REN21), the Renewable Energy and Energy Efficiency Partnership (REEEP), Methane to Markets (aims to reduce methane emissions) fall within this framework and are also registered partnerships with the CSD.

Of course there are other initiatives such as the Carbon Sequestration Leadership Forum (CSLF) and an international partnership for a hydrogen economy society. Reality is, however, that many of the initiatives that fall outside of the Convention and the Kyoto Protocol process take the form of partnerships.

Although these initiatives do not solely focus on climate change issues, what they have in common is that they take on climate change measures as one of its main theme. In other words, while these initiatives focus on other issues related to climate change, they also carry out climate change measures at the same time. Many of these initiatives have not yet started and their future developments are unclear.

However, if these initiatives are in carried out in full-scale towards the respective objectives, the interdependence of the various actors will be facilitated within the related diverse framework. Furthermore, as the diverse framework and the actors build a network among each other through interdependency relationships, it is anticipated that the problem solving structure for climate change related challenges will permeate into various sectors, and take a form similar to the structure of distributive governance.

In order to realize this, the relationship between the functions of governance and entities required for tackling climate change issues must be organized. Following this, an international system that encourages the optimization of this structure must be established. It should be noted that a moderate overlap is important as it provides sound competition among the systems.

For example, the Asia Pacific Partnership on Clean Development and Climate covers

eight areas including the development of new technology for renewable energy. It aims to promote information exchange within the private sector as well as to establish procedures to identify, evaluate, and to provide solutions for the challenges and obstacles faced in technology development. <sup>19</sup>These procedures are difficult to undertake within the framework of conventions and protocols. It is, however, possible for the actors that are implementing the CDM projects within the Kyoto framework to also be actors of a partnership. Therefore, as different actors repeatedly work together interdependently in various frameworks, new information, knowledge and awareness is created, and interdependency and networks are further enhanced. It can be noted that such elements may, in the long run, be a short-cut to achieving the ultimate objectives underlined in Article 2 of the Convention.

What is important is that these partnerships are not alternatives to the Convention or to the Protocol process. Only when the Convention and Protocol process - particularly the international systems defined in Kyoto - specifically sets down the responsibility of the states for climate change, will a dispersed governance system structure be realized. It is similar to the Johannesburg Summit Partnership documents that have a complementary function to political declarations and implementation plans, and do not solely represent a comprehensive agreement. According to current day international relations, even if governments become partners, the collection of independent initiatives alone does not guarantee the realization of achieving targets.

##### 5. Beyond the Kyoto Protocol

In the international arena surrounding climate change, the perception is that the two bipolar coalitions will continue for the time being - the EU centered block which aims to establish measures that respect the Kyoto Protocol, and the US centered block which created its own initiative. The important point, however, is that both parties are not exclusive of each other. In the first place, when solving complex issues such as climate change, a co-existing framework of conventions, protocols and other initiatives may stimulate structural innovation (or synergy effects) based on the reinforced characteristics of the latter system (other initiatives) which are constituted by "partnerships". From the perspective that the climate change issue is long term, it is recommended to establish a security system by creating a mechanism for an autonomous dispersive cooperation which permeates into various sectors.

In this case, however, what is important when dealing with climate issues is the existence of the systems of the Convention and the Protocol. <sup>20</sup>As mentioned earlier, if there are other means for the respective countries to seriously deal with climate change

measures, then there is no reason to dwell on the Protocol. However, until the actions aimed at combating climate change take firm root, the Protocol which sets clear goals and objectives will continue to play an important role. Under the UNFCCC - taking into account the history of non-compliance towards non-binding targets – evidence of the situation in the US in 2004 which has shown an increase of green-house gas emissions of 15.8 percent compared to 1990 levels and that there is no sign of putting a stop to the increase in emissions, shows that this statement remains valid. <sup>21</sup>Emphasis has been, furthermore, placed on the fact that the Kyoto Regime is now actually in operation after enactment of the Protocol. <sup>22</sup>That is if the current mechanism happens to fail, the international community will not only be pressured to change future measures, but will also be faced with a decline in investment willingness. For instance, even in Brazil, also known as the “CDM world leader”, which accounts for nearly 15 percent of the total registered CDM projects world wide, it is said that due to the uncertainty of the future framework debate, there are now signs of reluctance towards CDM investments.<sup>23</sup>

In this light, from the perspective of systems, history and incentives, it is important to maintain momentum towards continuing beyond the first commitment phase of the Protocol as part of the next step towards future global warming measures. As stated in the early sections of this paper, it is too costly to start the Kyoto process again from scratch by a revolutionary approach. In addition, based on the role of the state within the structure of dispersed governance, it is important to strategize on how to bring the US back into the negotiations. For instance, this could be a unit consumption based target, or capacity development measures in developing countries - especially the larger ones - through initiatives outside the Convention and Protocol process. If the US is severely impacted by the effects of climate change, there may be room for large developments. Before that happens, however, the US should be called for to propose a blueprint for taking responsibility and action towards climate change. Only then - aside from the Convention, the Kyoto process and other initiatives - respecting the principle of “states have common but differentiated responsibilities“, will the discussion on the role of developing countries become clearer. According to the calculations of the aforementioned Long-Term Scenario Measure project, it would be impossible to reduce GHG emissions globally by half by 2050, with measures taken only by industrialized countries. In the near future, developing countries will also need to take action.

In reality, many international regimes have been formed that do not include the US, similar to the situation with the Kyoto Protocol. To mention a few: the International

Court of Justice (2002), the Convention on the Rights of Child (1989), Optional Protocol to the Convention on the Rights of the Child on the involvement of children in armed conflicts (2002), and the Convention on the Prohibition of Anti-Personnel Mines (1999). Despite the non-participation by the US in these treaties, there have been developments towards reaching a consensus. One main factor in solving the issue of how to bring the US in these negotiations, lies in the hopes for the diffusion of the structure and norms of dispersed governance, as well as good diplomacy.

Japan which has a history of a firm post-war US-Japan diplomacy, has placed extreme emphasis on US diplomatic relations. However, for instance, in the case of the negotiation for the Plan of Implementation during the WSSD, a clause was included stating that the countries that ratified the Protocol should urge those countries that have not signed the treaty to join within a year. As seen in this case, due to the firm foundation of US-Japan relations, there is much anticipation towards the possibility of Japanese diplomacy to influence the US towards consideration of joining the Kyoto Regime. Furthermore, it is necessary for the domestic debate concerning this issue to be held with the participation of the government, private sector, researchers and NGOs, is based on sound science in a fair manner, and that a future positioning is created based on consensus.

In the era of this type of diplomacy and dispersed governance, transparent and accountable diplomacy will be a key factor. <sup>24</sup>In order to reflect the negotiators' contributions and devotion working day in and day out in creating the international system, the negotiation process should not resort only to a "closed door" approach. Japan's diplomacy must maximize on the comparative advantages of the diverse actors and utilize their dispersed and extensive multi-channel networks. These methods will be essential for establishing a system as well as for realizing effective diplomacy. Based on these factors, furthermore, there is a greater possibility for creating effective synergies. In addition, in an era where information holds value in governance issues, the factor of rapid information flow is the foundation for effectiveness. In the case of the representatives of European Non-governmental Organizations, even if their positions may differ from the government at times, they seem to show satisfaction with the level of information obtained and their contacts with government delegates. The Japanese NGO delegates, on the other hand, expressed great dissatisfaction in this area. Of course, this problem cannot be resolved solely by the efforts of the governmental organizations and individuals. Efforts must also be made by the civil society including the private sector, NGO and academia. Information sharing through communication and dialogue should be promoted among various stakeholders, avoiding confrontation at

all costs. What is important is to look for ways to explore a roadmap for an effective governance mechanism that promotes networks and enhanced interdependence among actors, which aims to essentially create a system that houses a mechanism for information sharing with a degree of security.

Ultimately, the debate on international systems begins from defining and strategizing positions at the national level. As it is anticipated that there will be full-fledged negotiations concerning the future of the climate change framework, there is all the more need for global discussions based on sound science.

Footnotes:

1. For example, the Japan-EU Council Meeting (7619/1/05 REV1).
2. The US State Department, “USA Energy Needs, Clean Development and Climate Change.”
3. The US 2004 GHG emissions levels show an increase of 15.8% compared with 1990 levels. Source: USEPA, “INVENTORY OF U.S. GREENHOUSE GAS EMISSIONS AND SINKS:1990-2004” April 2006, USEPA #430-R-06-002.
4. For “vertical link” issues refer to: Norichika Kanie (2003), “Toward a Governance System Framework for Environment and Sustainable Development” edited by Toshiyuki Kagawa and Tomoyuki Kojima, Cutting Edge of Policy Management IV, Keio University Press, pp.235-255 (in Japanese), or Oran Young (2002), Institutional Dimensions of Environmental Change, MIT Press. With regard to the Netherlands, refer to Norichika Kanie (2001) Global Environmental diplomacy and Domestic Policy: In the case of the Dutch diplomacy and policy and the Kyoto Protocol, Keio University Press (in Japanese).
5. For such international discussions, refer to research on Participatory Integrated Assessment (PIA) and Participatory Technology Assessment (PTA). Haruka Kubo (2001) Forums on Scientific Technology for Experts and Citizens: focusing on the Denmark Consensus Conference”, Administrative Management Research Quarterly, No.96, Institute of Administrative Management, pp.40-55 (in Japanese). Hajime Shinohara (2004), Political Science for Citizens: What is debate democracy?, Iwanami Paperbacks (in Japanese), Yukihiro Harasina edit (2005), Public Participation and Consensus Building, Gakugei Press (in Japanese).
6. Source UNFCCC homepage as of May 10, 2006.
7. Refer to the following for more information on the EU 2 degrees target issue. Yasuko Matsumoto, Hiroshi Ohta, Norichika Kanie, “EU’s Long-term Targets and its Political Background: Interaction between Science and Political Science”, Environmental Research, 2005/No.138, pp-93-101 (in Japanese).
8. The views stated in this paper include research findings from the “Research Project on Establishing a Methodology to Evaluate Mid-Long term Environmental Policy Options towards a Low Carbon Society in Japan (Japan Low Carbon Society Scenarios toward 2050)”. For AIM Impact [policy], refer --- “Stabilizing Levels of Green House Gas to stop Global Warming”, Environmental Research Quarterly, 2005/No.138 (2005), pp.67-76.
9. Refer tot the pervious project report for calculation results.
10. Norichika Kanie (2005), Mid-Long term Target Setting and Challenges for its Internationalization: Reduction of Global GHG emissions and Japan’s Targets.”, “Environmental Research Quarterly”, No.138, pp.84-92.
11. Vinod K. Aggarwal (1998) *Institutional Designs for a Complex World*, Cornell University Press,

- Elinor Ostrom (2001) “Decentralization and Development: The New Panacea”, Keith Dowding, James Hughes and Helen Margetts, *Challenges to Democracy: Ideas, Involvement and Institution*, Palgrave Publishers, pp.237-256, Christopher K. Ansell and Steven Weber (1999) “Organizing International Politics”, *International Political Science Review*, January 1999, Peter M. Haas, Norichika Kanie and Craig N. Murphy (2004) “Conclusion: Institutional design and institutional reform for sustainable development”, Norichika Kanie and Peter M. Haas eds. *Emerging Forces in Environmental Governance* UNU Press.
12. In reality, there are over 200 Multilateral Environment Agreements (MEA). There is, however, debate that many of these agreements overlap and that they should be coordinated. This is one of the key factors towards reforming the international system in the environment arena. *Inter-linkages: Synergies and Co-ordination between MEAs*, United Nations University: Tokyo, pp.31. 1999, Daniel C. Esty and Maria Ivanova eds (2002) *Global Environmental Governance: Options & Opportunities*, Yale School of Forestry and Environmental Studies, Norichika Kanie and Peter M. Haas (2004), Andreas Rechkemmer ed (2005). *UNEO-Towards an International Environment Organization*, Nomos, W. Bradnee Chambers and Jessica F. Green (2005) *Reforming International Environmental Governance: From Institutional Limits to Innovative Reforms*, UNU Press
  13. For views on the functions of governance and on actors, refer to Norichika Kanie (2003) and the previously stated book by Norichika Kanie and Peter M. Haas.
  14. The term “common knowledge” refers to Wendt’s theory: “the faith of the actors concerning the situation in other countries, as well as the rationality, strategies, and preferences of the mutual actors. “consensual knowledge” refers to the following kind of scientific knowledge within causal relationships “(1) where various important political issues are reassembled in an accessible and adaptable way (2) common knowledge by both scientific and political experts”, Alexander Wendt (1999), *Social Theory of International Relations*, Cambridge University Press, Ernst B. Haas (1990) When Knowledge Is Power: Three Models of Change in the International Organization, University of California Press, Alexander Wendt(1999), *Social Theory of International Relations*, Cambridge University Press, Ernst B. Haas (1990) *When Knowledge Is Power: Three Models of Change in International Organization*, University of California Press, Yamada, “Multiple Governance and Changes in Global Public Order – from the perspective of Evolutionary Constructivism” in International Politics, No.137 (June 2004).
  15. Statement by Tony Blair on March 28<sup>th</sup> 2006, Source: ABN-AMRO, Pacific Hydro, Australian Business Council for Sustainable Energy, Phillips Fox, “Show me the money” May 2006, p.8. Source: (ABN-AMRO, Pacific Hydro, Australian Business Council for Sustainable

Energy, Phillips Fox, “Show me the money” May 2006, p.8)

16. Refer to the following websites for further information:  
<http://unfccc.int/meetings/seminar/items/3410.php>, <http://www.iisd.ca/climate/sb22/>
17. Refer to the following websites for further information:  
[http://unfccc.int/meetings/cop\\_11/items/3394.php](http://unfccc.int/meetings/cop_11/items/3394.php), <http://www.iisd.ca/climate/cop11/>
18. The number of partnerships as of Feb. 24 2006, E/CN.17/2006/6.
19. The first ministerial meeting of the Asia-Pacific Partnership on Clean Development and Climate took place on January 12<sup>th</sup>, 2006 in Sydney, Australia – summary and evaluation.
20. Network theory states that in a network that does not generally have a vertical command and control system, the hub which acts as the core body plays an important role. This hub coordinates the relationship among various actors. W. Richard Scott (1997) *Organizations: rational, natural, and open systems*, Principles-Hall, Inc.
21. As stated earlier in the USEPA document.
22. According to Hovi, Skodvin and Andersen (2003), once a system is created, there are bureaucratic interests and opportunities created within the market. A system change is highly unlikely if there is no large political change. Jon Hovi, Tora Skodvin and Steinar Andersen (2003) “The Persistence of the Kyoto Protocol: Why Other Annex I Countries Move on Without the United States”, *Global Environmental Politics* 3:4, November 2003, pp.1-23.
23. Refer to March 2, 2006, <http://cdm.unfccc.int>
24. Governance is defined as not only the implementation of government rules and laws, but includes an unofficial non-government mechanism that works towards a common goal based on consensus and self-motivation. James N. Rosenau and Ernst-Otto Czempiel eds(1992) *Governance without Government: Order and Change in World Politics*, Cambridge University Press.
25. Here, “closed diplomacy” means traditional diplomacy. “It primarily means the coordination of official relations among sovereign states by diplomats or governmental institutions.” (source from [Political Science Encyclopedia](#)). In the post-cold war era, it is now perceived that the current environment of diplomacy differs from traditional diplomacy in many ways.
26. These comments were obtained during interviews that were conducted during the COP meetings. For further information, refer to the previously mentioned book by Norichika Kanie (2001), Dana R. Fisher (2004) *National Governance and the Global Climate Change Regime*, Rowman & Littlefield Publishers, INC, Norichika Kanie (forthcoming) “Participation of NGOs in the Global Climate Change Decision-Making Process - A Key for Facilitating Climate Talks –”, Gunnar Sjøstedt ed., *STRATEGIC FACILITATION OF THE CLIMATE TALKS*, IIASA