

Japan's decision-making about climate change problems: comparative study of decisions in 1990 and in 1997

Yasuko Kawashima

National Institute for Environmental Studies, 16-2 Onogawa, Tsukuba 305-0053, Japan

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Abstract This paper aims to assess Japan's decision-making process to finalize its proposal for the Kyoto Protocol by comparing it to a similar decision in 1990–1992. The processes of the two periods are analyzed at both the international and domestic levels of decision making. At the domestic level, the process is divided into three areas—decision-making factors, the decision itself, and the process itself—to clarify the comparison.

It is concluded that Japan's decision in 1997 may have been effective in mediating between the United States and the EU for a short time, but not in the last phase of the negotiation when countries started bargaining toward an agreement. The process may also not be suitable if Japan wants to take the lead in the climate-change debate. To overcome these weaknesses it is necessary to make changes in the decision-making process to involve more domestic stakeholders in the process, and to strengthen the capacity of such stakeholders.

Key words Climate change · Kyoto Protocol · Japan · Decision-making process · Politics

1 Purpose

Climate change is a global issue that has attracted worldwide attention over the last decade. The politicization of climate change began in the late 1980s, and by 1992 the United Nations Framework Convention on Climate Change (FCCC) had been adopted. The FCCC, an agreement that stipulated the emission targets of the participating countries until 2000, was followed by the adoption of the Kyoto Protocol at the 3rd Conference of the Parties to the FCCC (COP3) in December 1997. In this protocol, the Annex I Parties to the FCCC (the Organization for Economic Cooperation and Development [OECD] countries and the Economies in Transition countries—namely the former Soviet Union and the Central and the East European countries) committed themselves to emission reduction targets for six types of greenhouse gases (GHGs). This protocol, however, is widely regarded by scientists as still being insufficient to achieve the ultimate objective of the FCCC, which is to “achieve . . . stabilization of greenhouse gas concentrations in the atmosphere at a level that would . . .

dangerous anthropogenic interference with the climate system" (Article 2, FCCC). Thus, climate change negotiations are likely to continue into the next century.

Japan, being one of the economic superpowers as well as one of the most energy-efficient developed countries, has been in a difficult position in the climate change negotiations. It wants to take a leadership role in dealing with global environmental problems while maintaining its claim that, because of its achievement of a higher degree of energy efficiency compared with many other industrialized countries, Japan ought to commit to less stringent targets than others. Since climate change debate is expected to continue into the next century, it is important for Japan to review its decision making process in the past, and to realize its characteristics, advantages, and disadvantages.

The aim of this paper is to review Japan's decision-making process on its proposals for the Kyoto Protocol, and to assess that process by comparing it to a similar decision-making process that took place in 1990–1992 when the government announced its position on FCCC negotiations. The processes of the two periods are analyzed at both the international and domestic levels of decision making, and by finding the links between them. At the international level of analysis, Japan's decision is evaluated by allocating it a position among the negotiating behavior of other major industrialized countries. The domestic level focuses on the internal decision-making process of Japan.

This study concludes that Japan's decision-making process in 1997 may have been effective in coming up with a proposal that mediated between the United States and the EU for a short time, but it was not effective in playing the mediator's role in the last phase of the negotiation when countries started bargaining toward an agreement. The process may also not be suitable if Japan wants to take the lead in the climate-change debate. To overcome these weaknesses it is necessary to make changes in the decision-making process to bring about greater participation of domestic stakeholders, and to strengthen their capacity.

2 Analytical framework

Assessment of a country's decision-making process is not an easy task. The process may change over time. The same process may succeed in one place, but fail in another. Different outcomes may result from the same process if different influences are at work. It is thus important to distinguish three elements that are observed in decision-making processes: the factors that influence the process, the final outcome of the process, and the process itself (Fig. 1). In this study, the decision-making process is assessed according to these elements.

The first aspect is the domestic as well as the international factors that influenced Japan's decision-making process. If factors that prefer strict climate policy had strengthened over the years, it was more likely that the decision-making process would result in stricter decisions. The second aspect is the final outcome of Japan's decision-making process, which was the proposed emission

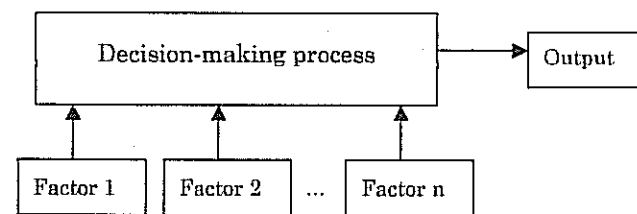


Fig. 1. Framework of the assessment of a decision-making process

targets. Government proposals can take several different positions, such as leader, mediator, or independent.¹ What kind of role did Japan propose to play? Was the attempt successful? The third aspect of the assessment is the decision-making process itself, in particular, participation. With the maximum participation of the stakeholders, the decision-makers are likely to consider most aspects of the situation, and thus prepare for all eventualities.

Another important point to be clarified before we analyze government decision-making on foreign policy is at what level we focus our analysis. From the links between mechanisms and/or actors, one should be able to explain the directions of cause and effect; whether decisions at the international level affect domestic decisions, or decisions at the domestic level affect a country's position in negotiations (Gourevitch, 1978). This study carried out a two-level analysis (Putnam, 1988). This is a useful way of looking at the situation when trying to separate the international level of negotiations from domestic politics, and trying to find a field of decision-making that will be accepted at both levels.

The overall structure of the analysis in this paper is shown in Fig. 2. Section 3 gives an analysis at the international level. It also observes the decision-making factors in four other developed countries (UK, USA, Germany and The Netherlands) first because it was shown in a previous survey that international politics was the most influential factor in Japan's decision making (Kawashima, 1997), and second because a comparison with other countries gives a better understanding of some features of Japan's decision making. Section 4 analyzes various stakeholders' activities and their causal links inside Japan, so that Japan's decisions will be explained more thoroughly at the domestic level. A comparison of the decision-making process in 1997 with that of 1990–1992 will reveal the trends of changes, as well as structural features that do not change over time.

A two-level analysis assumes that the negotiators' decisions are made within the limits of what would be accepted at the international level and also at the domestic level. Thus, an assessment of decision-making factors will be made in both sections. An assessment of the outcome will be made at the international level, as the intention is to determine the role of Japan's proposal in the formu-

¹ The definition of a "leader" and the role the leader plays can vary. For example, Young (1991) expects leading countries to lead negotiations to formulate environmentally aware regimes. Ikenberry (1996), on the other hand, stipulates the importance of different roles in international negotiations, including leaders and mediators.

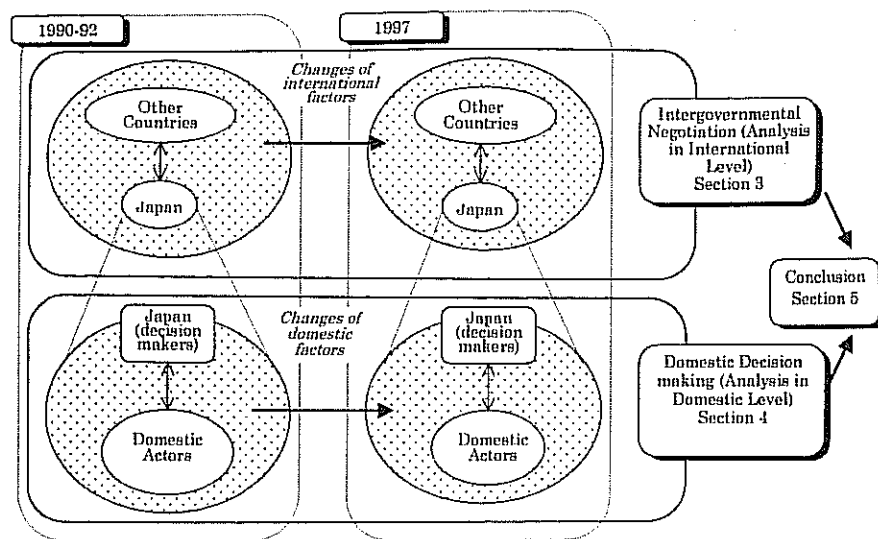


Fig. 2. Framework of the analysis

lation of the Kyoto Protocol. An assessment of the process itself will be made at the domestic level.

Data used in the analysis were obtained by interviews and questionnaires. The results of two surveys at different times were combined in order to reach to a single conclusion. The first survey was organized in 1995, and asked questions about decision making on the emission targets of the FCCC in the five countries indicated above. Interviews were obtained with key negotiators and stakeholders in all five countries. The results of this can be found in Kawashima (1997), and its abstract is examined in Sect. 3.1. The second survey was organized in 1998 for the same five countries. An interview survey was carried out in Japan, and questionnaires which asked the same questions as in the previous survey were sent to respondents in the other four countries. The purpose of the survey was to look for changes in the decision-making factors that had emerged in the first survey (see Sect. 3.2).

3 Japan and other industrial countries in the negotiations: international level of analysis

3.1 Abstract of the results of the first survey in 1990–1992

Negotiations about FCCC were held in 1990–1992. Before the start of the negotiations, some of the developed countries voluntarily set up their own emission targets. Japan was one of those countries. In 1990, the Japanese government announced its national commitment to stabilize its CO₂ emissions per capita at the 1990 level by the year 2000, and stabilization of its total CO₂ emissions if

suitable new technology was to be developed in the future (Government of Japan, 1990). During the negotiations, The Netherlands and Germany insisted on including ambitious emission targets in the Convention, while the United States was against inclusion of any specific figures for targets and timetables on emissions. Japan and the United Kingdom were between these two positions, supporting the Europeans' initiative, but at the same time acknowledging the significance of the United States becoming a party to the Convention, as the United States was responsible for nearly a quarter of global CO₂ emissions.

The interview survey was not aimed at collecting answers from many anonymous samples, but at having in-depth interviews with a few influential people who had a large amount of information (Manheim and Rich, 1995). This was appropriate in this case because usually very few people in the government are fully involved and responsible for these negotiations. Therefore, the perceptions of those negotiators were the key to a real appreciation of decision making, rather than the many people who did not know much about the process.

In the interview, six possible factors which might have influenced the decisions were listed on the interview sheet. Those factors were the adverse impact of climate change on the country, the economic cost of reducing CO₂ emissions, domestic politics, international politics, differences in their perception of how legally binding the target was, and learning from past experience. At the interview, each interviewee was asked to say how, and how much, he/she thought each of these six factors affected the decisions of their country. The degree to which the factors influenced the decisions was evaluated by choosing from 1 to 5: 1 being the least influential and 5 being the most influential.

The survey gave the results listed below.

1. The Netherlands and Germany, who were strong advocates of strict emission reduction targets, were influenced by the strong awareness of the public towards climate change issues. The people in these countries pressured their governments to implement emission reduction policies. It was necessary for these two countries to assert the importance of establishing an international treaty on climate change so that action would be taken globally. This intention drove the position these countries took at the international level. The decision of The Netherlands was also influenced by the desire of high-level officials and politicians to take a leading role in the European Community by prioritizing environmental problems on their agenda.
2. The United Kingdom and Japan played the role of mediators. Their positions, which basically supported setting emission targets in the Convention, were influenced by international politics and strong pressure from mainland European countries. The two countries had similar influencing factors. First, in both countries the economic cost of mitigating CO₂ emissions was considered to be reasonable. The word "cost" in this case was used in terms of opportunity cost and not marginal cost of abatement. Japan, with the marginal cost of emission reduction considered to be higher than that of other developed countries, always perceived it to be of benefit to improve energy efficiency.

since almost all the energy resources consumed in the country were imported. Second, the public was not concerned about climate change in either country. Thus, there was little domestic pressure for their governments to take a more affirmative position to combat climate change.

- The United States opposed emission targets, although it was pressured by other countries to take stronger action. The main reason for such a position was the economic cost of mitigation. Unlike the other four countries, the United States has energy resources within the country. There was no incentive for industry, transport, or the residential sector to improve energy efficiency.

3.2 Survey of the negotiations up to Kyoto in 1997

The second survey was intended to find out whether there were any changes in the decision-making factors in the same five countries in relation to setting emission reduction targets in the Kyoto Protocol in 1997. This time, the focus of the survey was on Japan. Thus, an in-depth interview survey was organized in Japan, while only questionnaires were sent to the other four countries. In Japan, four key decision makers in the government, two in industry and two from environmental NGOs were interviewed for more than an hour each.² For the other countries, questionnaires were sent to about ten negotiators in government and to other relevant stakeholders. Most of the people chosen as interviewees and respondents this time were those who were involved in, or at least aware of, the negotiations for the Convention in 1990–1992, so they would be aware of any changes in decision-making factors in 1997 compared with 1990–1992. The questionnaire first briefly explained the results of the previous survey. It then asked how each decision-making factor in the previous survey had changed (or not changed) by 1997. The questions were, for example; “Do you think there was more perception in 1996–1997 that climate change would occur and would harm your country?” and “Do you think that recognition of the economic cost necessary to achieve a certain emission reduction target in your country has changed since 1991–1992?” The respondents were asked to choose from five listed answers, and to give specific evidence to supported their answers.

At negotiations for both the Convention and the Protocol, a similar picture emerged; European countries asserting the need for stringent emission reduction targets, and the United States and some other non-European countries disagreeing to such targets. However, changes were observed in the decision-making factors in each country. Table 1 summarizes the main comments that were obtained in the survey. The directions of the arrows in the table were determined by taking the average of the answers that were selected by the respondents from the five choices. By assessing these responses, some general comments can be made.

² In accordance with some of the interviewees' requests, their names cannot be mentioned in this paper.

Table 1. Typical answers to the survey: comparison between the decision for the Convention and that for the Protocol

| | Decision-making factors for the Convention (1990–1992) | | Decision-making factors for the Protocol (1997) |
|-------------|---|-----|--|
| Netherlands | * Impact: “Climate change on a global scale was the issue.” | ↑ → | * Impact: “More publicity, more awareness.” “The issue has been taken seriously in my country for a long time.” |
| | * “Sea level rise is not a problem any more in our country.” | ↓ | * Cost: “Awareness of the high economic price to be paid for substantial reduction has grown.” “Budgets planned for emission reduction have risen considerably. Policy documents related to climate change focus much more on the difficulty of realizing the set targets and the related economic costs.” |
| | * Cost: “It was considered to be feasible with no regrets to implement clean technologies.” “It was up to the economic scenario (how much cost is required).” | → | * Domestic politics: “Interest has been keen for a long time.” “The interest of the environmental NGOs itself has not changed.” The change since 1991–92 is the heightened political awareness of the climate change issue.” |
| | * Domestic politics: “Ministers were personally interested in the climate change issue.” “The Dutch people compared with people in other countries had a higher awareness of environmental problems at that time.” | ↓ ↑ | * International politics: “In general one could say that the Dutch government, though still ambitious, is less willing to be in the forefront if others who are lagging behind do not pull their weight.” “Presidency in 1997 made The Netherlands a more active participant in the international scale.” |
| Germany | * Impact: “Impact had some influence but it had been a more global change (than the domestic impact).” | → ↑ | * Impact: “IPCC SAR and other scientific findings have influenced.” “In 1990–92 there was a general expectation of globally disastrous developments to come due to climate change. Now there is prevailing a more differentiated view.” |
| | * “Generally, it was the scientist that pushed the Enquete Commission.” | ↓ ↑ | * Cost: “The view on costs due to mitigation of climate change are quite divergent in Germany.” “There is a general feeling that the costs of climate change have been underestimated previously.” |
| | * Cost: “Increase in energy efficiency, pushing forward innovation on this sort of thing will be triggered off by increasing energy prices.” “Resulted in rather high reduction potentials which were then calculated with no, or positive, cost.” “There was no discussion on cost.” | ↓ ↑ | * Domestic politics: “In Germany, public and NGO's interest in climate change had a maximum in 1995.” “More NGOs became active on climate change.” |
| | * Domestic politics: “Enquete Commission was the result of the general awareness in the different sectors of society and especially of Parliament.” “The general perceptiveness towards environmental issues has something to do with the strong position of the Green Party.” | ↑ | * International politics: “In general, international politics in Germany has become even more aware if its international responsibilities and thus more active than in 1990–92.” |

Table 1. Continued

| | Decision-making factors for the Convention (1990-1992) | Decision-making factors for the Protocol (1997) |
|----------------|--|---|
| United Kingdom | <p>* Impact: "There never was any very serious concern about the impact of sea-level rise or vulnerability to weather." "The government was not in a position to ignore what the WG 1 reported."</p> <p>* Cost: "A little bit of energy efficiency, a conversion to gas and the recession meant the UK will achieve the target." "Analysis showed that the UK could adopt its target without imposing a huge cost on our economy." "Privatized industry would chose what fuel they would use."</p> <p>* Domestic politics: "Mrs. Thatcher was particularly interested in climate change." "The public are more interested in other environmental issues such as natural preservation and animal rights."</p> <p>* International politics: "European countries were pressuring the UK to set a targets and time tables on CO₂ emissions." "A role of a broker between a strong EU position at the time and very weak US position."</p> | <p>* Impact: "Parliamentary reports on potential for coastal flooding, and scientific research indicating possible dramatic climate change." "UK government reports (was effective)."</p> <p>* Cost: "Developments in electricity generation have already lead to significant reductions in CO₂ emissions." "More reduction is possible by gas collection, etc."</p> <p>* Domestic politics: "Change of government to Labor Party affected little the position on climate change." "Labor Party is in general in favor of taking the lead in environmental negotiations."</p> <p>* International politics: "The UK continues to be one of the leading nations in addressing international environmental issues."</p> |
| Japan | <p>* Impact: "The impact is said to be extremely large, and action should be commenced immediately." "We can only discuss on the basis of what information we have." "This is an important problem in the longer term."</p> <p>* Cost: "Firms were expecting an increase in technology exports." "Almost impossible to estimate cost." "Much cost is incurred, and stabilizing CO₂ emission is difficult."</p> <p>* Domestic politics: "The Environment Committee of LDP moved behind the screen." "A gift of compromise among ministries." "The Cabinet Committee on Global Environment was established in 1989 under Takeshita."</p> | <p>* Impact: "Studies on courses of typhoons are coming out with results, but still uncertain about impact on climate change." "Still uncertain how much global warming there will be."</p> <p>* Cost: "Japan has achieved the highest energy efficiency. Significant reduction will lead to large GDP loss." "This will be an incentive for energy-efficient and renewable-energy-related technologies."</p> <p>* Domestic politics: "There was a great rise in public awareness because of hosting COP3." "Public awareness also led to greater activities of environmental NGOs and parliamentarians." "Prime Minister Hashimoto was influential."</p> |
| United States | <p>* International politics: "There was a self-consciousness as a world leader." "There was strong pressure from EC countries." "Japan has been expected by other countries to contribute to international welfare, but may be accused if it took leadership in other international issues such as trade."</p> <p>* Impact: "There might be warming but little harm was expected." "Too early to tell whether in fact there will be a warming trend or not." "There was a concern that there was time to respond to this."</p> <p>* Cost: Coal is very essential to use as a domestic fuel in terms of energy dependence and economic growth." "The emphasis shifted much toward the costs." "It's more difficult in a country like the US, it's so huge."</p> <p>* Domestic politics: "The public was not so interested in the issue and was aware of regional environmental issues." "Public opinion did not affect the government very much." "President Bush was very ill-informed."</p> <p>* International politics: "In the political and military sphere we're still doing well." "The US was in the lead concerning scientific knowledge." "It at least loosened the traditional leadership role of the US."</p> | <p>* International politics: "As host of COP3, Japan could not do anything that may be shameful." "Japan was pressured both from the EU and the US." "Japan thought much of the US because US is the largest emitter of CO₂ and thus cannot do without."</p> <p>* Impact: "Still too uncertain." "More impact of climate change has been estimated."</p> <p>* Cost: "Climate change policies are likely to harm US economy." "Impact on economy was more severe in 1990-92." "Energy-consuming lifestyle has been established."</p> <p>* Domestic politics: "Although Clinton was in favor of environmental problems, the Republican Congress adopted resolutions that did not support any protocol that may harm US economy." "Low interest of the public."</p> <p>* International politics: "The US have less willingness to take the position of international leadership."</p> |

Note: Arrows in the middle column show changes in the decision-making factors from 1990-1992 to 1997. Arrows pointing upwards show that the factor was changed favorably for the country to take a more positive position on climate change policies. Those pointing downwards show the opposite changes. Two arrows pointing in different directions are shown when different comments were given by respondents

1. In The Netherlands, there were some changes in perception of the cost involved in reducing CO₂ emissions in the country. Discussion in the 1990–1992 period seems to have neglected the question of how much economic cost was necessary to achieve its own proposed reduction target. In 1997, on the other hand, there were more serious discussions of how to achieve the target, and how much such a policy would affect the country's economy. Industry started to oppose the setting of targets that would lead to loss of competitiveness. Changes were also observed in the international politics factor. The Netherlands had considered itself as the leading country on environmental issues when it held the EU Presidency in 1997. The Dutch respondents considered that during the 6th Ad Hoc Group on the Berlin Mandate (AGBM) in March 1997, it was The Netherlands' strong leadership that resulted in the EU's proposal for the Protocol, which was 15% emission reduction from 1990 levels by 2010.³ In order to bridge the gap between a backward position due to the "cost" factor and a forward position due to the "international politic" factor, the Dutch government promised industry that it would not implement any additional carbon tax unless other developed countries imposed the same burden on their industries. This meant that Dutch industry would not lose competitiveness while the government aimed for emission reduction targets.
2. In Germany, public awareness about climate change hit its first peak around 1990, peaked again in 1995 at COP1, and has declined since then. This means that public awareness in Germany in 1997 was still high compared with that of other countries, but lower than in 1990. For the cost factor, perceptions were similar in Germany to those in The Netherlands. The government and Parliament became more aware of the economic cost that might be involved in achieving their emission target. It was still considered that Germany could reduce CO₂ emissions relatively more easily than other OECD countries owing to the reunification of East and West Germany, but since Germany was committed to tougher reduction levels than other countries at AGBM6, it became more costly to achieve the target agreed among the EU countries. International political factors were not perceived to have influenced Germany in 1990–1992, but were considered more important in 1997. Among the five countries being reviewed here, Kohl was the only head of state who had remained in that position from 1990 to 1997. The German respondents mentioned that Kohl became increasingly interested in seeing himself as the green leader in international politics. At the Denver summit in June 1997, Kohl emphasized the importance of COP3 and demanded that the United States should take a more positive position in the negotiations.
3. In the United Kingdom, a greater awareness of the impact of climate change was the result of government publications on the latest scientific findings. In

³ The Netherlands had a chance to maintain its leadership role in the latter half of 1997 as the Presidency was given to three countries, namely The Netherlands, Luxembourg, and the United Kingdom.

- 1990–1992, the cost of reducing CO₂ emissions was considered to be negligible because of the shift in the use of energy resources from coal to gas. By 1997, however, the target was to be set for 2010, which meant that this effect was likely to finish and emissions were likely to start growing again before 2012. There has also been a change in the international political factor. In 1990–1992, the United Kingdom took the role of mediator between the United States and the EC, which meant it had to remain slightly distanced from the European position. In 1997, on the other hand, the United Kingdom became one of the three Presidency countries in the latter half of that year, which made it difficult to separate its position from that of the EU. This situation meant that the United Kingdom had to come up with a high reduction target.
4. In Japan, the most significant change from 1990–1992 to 1997 was that it hosted COP3 in 1997. This situation influenced both domestic and international political factors. At the international level, Japan tried to become a mediator in both 1990–1992 and 1997. It was considered more important in 1997 that Japan should take such a role than in 1990–1992 because of being the host. The United Kingdom, which had played a role as a mediator in 1990–1992, was in a position to speak on behalf of the EU in 1997. This situation left Japan as the sole country able to broker between two opposing groups. At the time of the 1990–1992 survey, key phrases used by many respondents were "leadership in Asia" and "contribution to international society," but in 1997, the dominant phrase changed to "mediator between the United States and the EU."
 5. In the United States, it was found that little change had been observed in the first two decision-making factors: impact of climate change and cost of reducing emissions. As for domestic politics, President Bush's negative attitude towards climate change problems in 1990–1992 was considered to be one of the major reasons for the United States' position. In 1997, Clinton had replaced Bush, but the United States' position in resisting emission reduction targets did not change, but actually strengthened. Congress and industry were also strongly against agreeing to reduce CO₂ emissions. In international politics, the status of the United States as the superpower in the world was perceived to be in decline since the end of the Cold War. The United States government was showing less willingness to contribute to international organizations and global problems unless it was a military conflict over which the United States still could exercise its power.

3.3 Comparison of international level between 1990–1992 and 1997

3.3.1 *Assessment of decision-making factors* Respondents to the surveys indicated that the international political factor had been the most influential in Japan's decision making towards climate change negotiations in both 1990–1992 and 1997, but that this effect was increased in the latter period by hosting COP3.

responsible for the success of COP3, and thus could not say anything that might mitigate against such success. In this case, the "success of COP3" meant adoption of the Kyoto Protocol. It was also believed in 1997 that both the United States and the EU had to agree to the Protocol in order for it to be adopted, and that the host country should play a mediating role. Thus, Japan's position was influenced by these two powers. The fact that the United Kingdom was now aligned with the EU prompted Japan to move closer to the non-EU countries, namely the JUSSCANNZ group (a group which consists of non-EU industrialized countries), to attempt to balance the political powers. In the United States, on the other hand, there were stronger objections against emissions limitation from the domestic lobby in 1997. Since Japan found the participation of the United States of critical importance, this situation influenced Japan to come up with a proposal that would be agreeable to the United States.

Apart from hosting COP3, Japan's willingness to take a leading role in Asia on environmental problems has also changed. In the survey of 1990–1992, the respondents talked a lot about doing something good for developing countries, especially in Asia. They said that global environmental issues, especially climate change, was a perfect theme to encourage contributions from abroad. However, in 1997, the attention of the interviewees was focused mainly on relations among the Annex I countries, especially the involvement of the United States. The domestic factor also became important in 1997, but was perceived by the interviewees to have been less influential than international factors. Reasons for these features will be elaborated in the next section.

3.3.2 Assessment of the final outcome of the decision-making process In both processes, Japan made a proposal that sought to take a position between those of the EU and the United States. During the 1990–1992 process, Japan was not the host of a meeting, but it still considered being a mediator to be important.⁴ In 1997, the agreed 5% was between the 10% from EU member states⁵ and the 0% of the United States.

To evaluate whether Japan's attempt at being a mediator was successful or not, it is useful to simulate what would have happened if Japan had taken a position closer to the EU and proposed a stringent emission reduction target.⁶ Would the political balance between the EU and JUSSCANNZ have collapsed, or would the United States have walked out of the COP3 meeting hall? If the answer to both questions is yes, then Japan's proposal could be evaluated as adequate. If it is no, then Japan could have taken another position which aimed for a greater reduction of GHG emissions, while continuing to be a mediator.

⁴ Later in the negotiations, Japan also proposed "pledge and review," a mechanism in which each country pledged its own voluntary target, and later all participants reviewed the level of achievement (Bodansky, 1993).

⁵ Although the EU proposed 15%, there was an internal agreement with in the EU to only a 10% reduction.

⁶ Using counterfactuals, tracing causal mechanisms, and using comparisons are means of estab-

The interviewees mentioned that the Japanese government had exchanged views with the United States, and had gained the impression that there was a strong probability that the United States might not support any protocol that included an emission reduction target or that did not include a commitment from developing countries. The question was, then, at what emission level would the United States be willing to accept the protocol? Japan believed that stabilization would be the most to which the United States would be able to agree. Some of the interviewees said that this was one of the main reasons why Japan proposed only a 2.6% reduction plus a 2% allowance for the United States, while suggesting a 5% reduction for many other countries.

The United States then initiated proposals on emission trading and joint implementation that would allow other countries to achieve their emission target without reducing its own emissions. The United States had to wait until the end of October 1997 to confirm its position on levels of emission, but it emphasized the benefits of an emission trading system before it started to discuss emission levels. During the final negotiating stage at COP3, debates on levels of emission reduction were dependent on what type of GHGs were to be included, whether to include sequestration by sinks, and whether emission trading and joint implementation would be accepted.⁷ Thus, figures for emission levels became the second matter to be debated.

Another aspect of the negotiations was the balance between developed and developing countries. In 1997, the attention of the interviewees was focused mainly on the relations among the Annex I countries. When the United States asked for the participation of developing countries, Japan sought a way to convince representatives from developing countries to agree to commitment in future years. This was informally called the Kyoto Mandate. However, the developing countries showed strong resistance to setting targets on their emissions, saying that the developed countries should show their commitment before discussing the responsibilities of developing countries. The developing countries were also strongly against emission trading and joint implementation, saying that such mechanisms would allow the developed countries to increase their own emissions. Thus, the developing countries had the power of veto over the Protocol at the last moment. The final agreement was reached when the commitment of the developing countries was dropped, while the other two mechanisms were included, but Japan was not prepared for this bargaining process.

From these analyses, it may be said that Japan's proposal on emission targets was a good attempt to find a consensus between the two opposing groups of developed countries. However, the negotiators finally reached agreement by adding and subtracting various considerations such as trading mechanisms and sinks.⁸ Japan's proposal, which had not considered these developments, could not

⁷ For more explanation about negotiations at COP3, see, for example, Grubb et al. (1999) and

contribute to the negotiations when it came to the stage of bargaining. Thus, the role of mediator did not last until the end of COP3. The result also indicates that Japan's aim of mediation among the developed countries was achieved to some extent, although not between developed and developing countries. This will become more important in the 21st century.

4 Japan's decision-making process: domestic levels of analysis

This section will focus on Japan's decision-making process itself. The first two sections, 4.1 and 4.2, are overviews of decision-making processes in 1990–1992 and 1997. These sections are based on written materials only, such as books, documents, and newspaper articles. The analysis in Sect. 4.3 is based on such documents, but also on responses at the interviews considered in the previous section.

4.1 Decision-making process in 1990

Japan became politically aware of global warming in 1989. At the Noordwijk Conference (the first Ministerial Conference on climate change), Japan opposed the declaration that supported reduction targets, mainly because flat-rate targets would not be advantageous to Japan whose emissions per gross domestic product (GDP) were lower than those of most other OECD countries. However, some Diet members claimed that Japan should take the lead in global environmental issues and criticized the position that was reported in the newspapers. The changes in the Liberal Democratic Party (LDP), especially, had given a big boost to the Environment Agency (EA). For instance, just before the Noordwijk Conference, Japan, together with the United Nations Environment Programme (UNEP), hosted the Tokyo Conference on Global Environmental Protection, where environmental issues and possible international cooperation were discussed. This was mainly targeted at Asian countries.

In 1990, as The Netherlands, Germany, and the United Kingdom announced their own national goals to reduce CO₂ emissions, the Japanese government considered it important not to fall behind the international movements. Furthermore, 1990 was the year in which the “Long-Term Energy Demand and Supply Plan” was to be formulated by June. The Natural Resources and Energy Agency (NREA) consulted Tadashi Yasuhara, then Director General of the Planning Division of the EA, about how they could integrate the two goals of forecasting energy demand in a realistic manner while reducing CO₂ emissions. Yasuhara, considering that climate change was an inter-Ministerial matter, decided to hold the “Inter-Ministerial Council on Global Environmental Protection.” This meeting was held on June 18, 1990. At this meeting, the participants agreed to publish a national plan to mitigate global warming. Being aware that the first IPCC report was to be published in the summer and that the Second World Climate Conference (SWCC) was expected later in the year, the Japanese government decided

Both the EA and Ministry of International Trade and Industry (MITI) started to draft their own plans. In the EA, some officials had experience working for the NREA. They built a simple energy model—a bottom-up type of model that summed up all the potential ways of saving energy—and concluded that stabilization of CO₂ emissions was achievable. However, the MITI's argument was a macro-oriented approach. First, it stated that, based on the Long-Term Energy Plan, CO₂ emissions would increase by 16% compared with the 1988 level by the year 2000. Then it said that at least 8% growth in emissions would be unavoidable, and that they could not be responsible for the policies necessary to achieve the energy-saving level assumed in the EA proposal. Finally, the Ministry of Transport (MoT) agreed that emissions from the transportation sector could be reduced by 2%, and the MITI reached a compromise of 6% growth.

On October 18, 1990, a high-level informal consultation was held between the EA, MITI, and NREA. At that time, the expected population growth from 1990 to 2000 was estimated to be around 6%, so the three ministries agreed to a two-step proposal. The final targets were (1) that the CO₂ emission levels should be stabilized on a per-capita basis by the year 2000 and maintained thereafter at 1990 levels, and (2) that efforts should be made to stabilize the total amount of CO₂ emissions by the year 2000 and maintain it thereafter at 1990 levels through the development of new energy sources and innovative technologies.

This plan was officially announced on October 23 at the Ministerial Council on Global Environmental Protection.

4.2 Decision-making process in 1997

At COP1 in 1995, the then Japanese Environment Minister, Sohei Miyashita, stated that the government would invite the COP to Japan at the 3rd session or later. From that time on, the Japanese government prepared itself to host COP3.

During the negotiating process, Japan insisted on having differentiated targets—different Quantified Emission Limitation Reduction Objectives (QELROs) for each party according to some kind of criteria such as CO₂ emissions per capita, or CO₂ emissions per GDP. At the 5th Ad hoc Group on the Berlin Mandate (AGBM5) in December 1996, Japan proposed that a party could select from one of two different types of target: either to maintain its anthropogenic emissions of CO₂ over the period from (2000 + x) to (2000 + x + 5) at an average yearly level of not more than p tons of carbon per capita, or to reduce its anthropogenic emissions of CO₂ over the period from (2000 + x) to (2000 + x + 5) at an average yearly level of not less than q per cent below the level of the year 2000 (FCCC/AGBM/1996/Misc.2) However, this proposal did not indicate particular figures for p or q .

In March 1997, at AGBM6, the EU countries agreed on their negotiating position. The Annex I parties shall, by the year 2010, reduce their emissions of three types of GHG (CO₂, methane (CH₄), and nitrous oxide (N₂O)) by 15% from 1990 levels. The EU asserted that all Annex I parties should commit to the same reduction rate, 15%, saying that an agreement on a criterion for differentiation

would be hard to achieve. Among the EU countries, however, the rates of emission targets were diverse—from 40% growth for Portugal to 30% reduction by Luxembourg. The other OECD countries argued that the EU proposal was inconsistent on the matter of differentiation, and that the reduction rate should be realistic (Tanabe, 1998, p. 78). However, these countries could not explain their own negotiating positions. Japan was one of the countries put under pressure to propose specific figures for QELROs.

After AGBM6, the related ministries and agencies started to formulate their own ideas for a Japanese proposal, but it was difficult even to agree on the common ground of a business-as-usual scenario for emissions in the next decade. Seeing the government's internal struggle, other domestic groups began to act. On May 30, members of the Kiko Forum (climate forum), a network of environmental NGOs, had a meeting in the government building of MITI. Although there were no changes in the MITI's position before or after the meeting, it was one of the few cases where NGOs and government officials exchanged views on climate change at that time. On June 18, the Keidanren (Japan Federation of Economic Organizations) published the "Keidanren Environmental Voluntary Action Plan," where 137 companies voluntarily committed themselves to a reduction of CO₂ emissions and/or energy conservation. Although this was not a legally binding commitment, the industrial sector as a whole aimed at a 10% reduction in CO₂ emissions by the year 2010.

In June, Prime Minister Ryutaro Hashimoto made a trip to the United States to attend the Denver Summit and the Special Session of the United Nations General Assembly (UNGASS) held in New York. The eight countries at the summit agreed to a communiqué that read "... this will require efficient and cost-effective policies and measures sufficient to lead to a significant reduction in emissions." The term "significant reduction" rather than "reduction or stabilization" being chosen, the meeting seemed to have expressed its commitment towards stringent targets. On the other hand, a base year, 1990 for example, was dropped, showing the compromises of political debate on climate change and the difficulty of the AGBM process.

Hashimoto started to take the initiative in the process of expounding Japan's proposals on QELROs (Hattori, 2000). On July 15, he invited ministers and vice-ministers of the EA, MITI, and Ministry of Foreign Affairs (MoFA) to his office, and requested them to cooperate to ensure the success of COP3. Just before this, on July 10, the Japanese government had announced that Japan would withdraw the proposal it had raised at AGBM5, and would consider a new proposal with specific figures and timetables. It was considered preferable for the Japanese government to bring its proposal to AGBM7, which would take place from August 1 to August 7. However, some people in the government believed that Japan should wait until all the other non-EU countries had announced their targets because, as host, Japan should play the role of mediator. In fact, other non-EU countries also seemed unready to propose any targets for the AGBM. This situation permitted Japan to delay making a

During the AGBM7 meeting, Japan had informal consultations with other industrialized countries on the matter of QELROs, but the EU countries did not support any proposal less stringent than stabilization (Kyodo, August 7, 1997). The consultation with the United States was also unsatisfactory, and the Japanese government had to recind its ideas.

On August 22, Hashimoto called the director generals of the EA, MITI, and MoFA and requested them to come to an agreement by an appropriate time so that Japan, being the host country, would not lose face. At that time, it was said that the United States would not be ready to announce its proposal before the White House meeting on October 6, so the Japanese government decided to aim to have its consolidated text ready before October. Another event that was expected in mid-September was the reshuffling of members of the Cabinet and an ad hoc Diet session at the end of September. Under this schedule, the government was expected to finalize its decision on QELROs by September 19.

On August 26, the planning and policy-making subgroup of the EA's Central Environment Council gathered to discuss the amount of possible CO₂ reduction and the domestic action necessary to achieve that target. The National Institute for Environmental Studies (NIES) presented the results of the Asia-Pacific Integrated Model (AIM), an integrated assessment model developed by NIES and Nagoya University that has been involved in some activities of the IPCC. The model showed that, under certain conditions, a 7.6% reduction of CO₂ emissions from the 1990 level was possible by 2010 without either hindering economic growth or degrading people's quality of life (Morita, 1998). From this result, the EA determined its own position that at least a 5% reduction should be proposed by Japan.

The next day, August 27, the government held its first Joint Meeting of Related Committees on domestic action for global warming. The main purpose of establishing such a meeting was to gather and break the ice between committees from different ministries and agencies which had been clinging to their own positions. Shinji Sato, Minister of the MITI, noted that various ministries were responsible for climate change policy and therefore cooperation was necessary. He also went on to say that the previous day he had met Angela Merkel, the German Environment Minister, who was visiting Japan at that time, and that he had informed her of his disapproval of the EU proposal and that he wanted it withdrawn. Furthermore, Michiko Ishii, the Environment Minister, said that she was told at the AGBM7 meeting by Ambassador Estrada, chairman of the AGBM, that Japan would show its figure on emissions as soon as possible. Finally, Hashimoto commented that he could not support the EU's "bubble" concept from the point of equity, and that Japan, both as host and as a developed country that had to show its initiative to developing countries, needed to commit to a strong target. He also noted that Japan had been considering only CO₂ emissions, but that other countries seemed to be handling other GHGs as well, and this seemed to be the trend.

On September 2, a meeting was held among the director generals of related ministries and agencies. The EA suggested a 5% reduction, while the MITI

insisted on stabilization. The MoFA considered that at least 5% would be necessary for Japan to play the role of host. They could not agree on a figure, but at least came to the common ground that the Japanese proposal would (1) suggest targets of around a 5% reduction from 1990 levels for the total emissions from Annex I countries, (2) set a target year of within 5 years of 2010, (3) include not only CO₂, but also CH₄ and N₂O, and (4) agree to emissions trading on condition that the trade would be "clearly verified." The 5% figure was supported mainly because (1) high-level officials who exchanged views with the EU had a feeling that a target of less than 5% reduction would not be accepted by the EU, and (2) the United States might be able to agree to such a small reduction (Asahi, September 3, 1997).

On September 11, the MITI determined that it would be difficult to reduce CO₂ emissions from the 1990 level by the year 2010. This conclusion was reached after consultation with various industries (Kyodo, September 12, 1997). The MITI staff asked each industry what reduction in emissions would be achievable and added them together to reach a plausible reduction. Following the reshuffle of Cabinet members, the new ministers held a press conference on September 12. Mitsuo Horiuchi, the new MITI minister told the press that the Japanese government would decide on its proposal by the end of September.

On September 18, the MoFA offered a new idea. Their proposal contained (1) a target year of within 5 years of 2010, (2) a 6.5% reduction from 1990 levels, and (3) an allowance for some countries to achieve less than 6.5% reduction depending on the level of energy efficiency they had already attained. The MoFA hoped this would be a compromise between the EA and MITI (Kyodo, September 18, 1997). The figure 6.5% was calculated according to the idea that per-capita emissions would be equalized all over the world by the end of next century, and assumed a linear reduction from now until 2100. The conclusion drawn from this calculation was that a 6.5% reduction by 2010 by the developed countries would be necessary. This idea was challenged by the MITI on the basis of that reduction being almost impossible in Japan. In the end, the government could not come to an agreement by September 19.

Late in the evening of September 24, high-level officials of the EA, MITI, and MoFA, and an officer of the Cabinet Secretariat met to finalize discussions on the Japanese position. Until then, the MITI had insisted that less than a 3% increase in CO₂ emissions would be difficult but, after consulting the MoT and the Ministry of Construction (MoC), it changed its position to concede that stabilization would be acceptable. However, this was still far from the EA's 6% to 8% reduction and the MoFA's 6.5% reduction proposals (Kyodo, September 27, 1997). The Cabinet Secretariat promoted an exchange of views to merge the different positions of the three ministries and came up with a compromise. Because discussion until then had only been based on CO₂ emissions, it first suggested that the inclusion of two GHGs other than CO₂ would enable Japan to reduce emissions by another 0.5%. Next, the Cabinet Secretariat developed a formula for Japan to achieve its own target while some other Annex I parties

differentiation, which allowed Japan's commitment to be lowered to a 2.5% reduction from its 1990 level. As the Cabinet Secretariat's proposal was being presented, the MITI asked for an additional 2% buffer zone, which would allow parties to avert noncompliance punishment if they could not achieve the target because of unexpected problems such as extreme weather or economic activity. It was agreed within the government that Japan "would like to propose such an allowance." The meeting was adjourned until the morning of September 25, and the report was sent to Hashimoto (Kyodo, September 27, 1997). The agreement by the Japanese government was quickly translated into English on September 26. During the translation, the 2% allowance was translated as though it was already part of the Japanese position. Some ministries and agencies complained, but it was then too late to remove this provision from the proposal (Takeuchi, 1998, p. 166).

The second meeting of the Joint Meeting of Related Committees on domestic action for global warming was held that day, September 26. There, the government still did not disclose the final text agreed among the ministries and agencies. The committee decided to meet again the following month, and planned hearings with the NGOs in late October. The date of these hearings (October 27 and 30) was criticized by the NGOs because they fell during the AGBM meetings, when most of the influential people would be in Bonn (Mainichi, September 26, 1997).

On October 2, the press obtained news that the Japanese government had agreed to a proposal. That proposal was a 5% reduction in principle, with some countries being allowed a lower reduction rate depending on their specific circumstances (Kyodo, October 2, 1997). Ohki, the new Environment Minister, attended the Asia-Pacific informal Ministerial Meeting which took place in Hawaii on October 3 and 4, and there discussed Japan's proposal with countries such as the United States, Canada, Australia, and New Zealand. Japanese NGOs criticized this news and commented that 5% was too small a reduction, and that Japan would lose face if the United States announced more stringent targets (Kyodo, October 2 1997). On October 6, the Japanese government officially sent its proposal to the FCCC secretariat. The proposal is summarized below.

As the President-designate of the COP3, the Government of Japan proposes 5% as a base reduction rate for deciding a reduction target for each country. . . . Countries with the following conditions may apply any one of the following Alternative Reduction Rates. (a) For a country for which emissions per GDP in 1990 (A) are less than the emissions per GDP of all Annex I countries in 1990 (B), the Alternative Reduction Rate (%) = 5% × (A/B). (b) For a country for which emissions per capita in 1990 (C) are less than the emissions per capita of all Annex I countries in 1990 (D), the Alternative Reduction Rate (%) = 5% × (C/D). For a country in which the population growth from 1990 to 1995 exceeds the population growth of all Annex I countries for the same period, the higher growth of population should be considered in deciding the target of that country. A concrete formulation of this alternative reduction rate is to be developed (FCCC/AGP/1997/Misc.1/A.1.1.1).

4.3 Comparison of domestic levels between 1990-1992 and 1997

It is often suggested that Japan's decision-making process is carried out only among bureaucrats (i.e., Johnson, 1982). The previous sections actually prove that both decision-making processes consisted mainly of interactions among ministries and agencies. Could it be said, then, that the two processes were the same, and that nothing was learned from 1990-1992 to 1997? Were these no changes in decision-making factors in the two periods? This section analyzes the two decision-making processes by focusing on the situation of each stakeholder in the country. The sources of information for this assessment are those referred to in the previous section, as well as responses from the interviews. The comparison is summarized in Table 2.

4.3.1 Environment Agency In the 1990-1992 process, climate change was considered to be a big boost for the EA. At its establishment in 1971, the EA was in an influential position, with strong public support. However, after the problems of pollution were mostly overcome in the late 1970s, its political power began to decline and it suffered a time when it had to look for reasons to justify its existence. The rise of global environmental problems was a good opportunity for the EA to regain its influence. The greening of the LDP accelerated the trend, and in July 1989, Prime Minister Sohsuke Uno appointed the Environment Minister to become the Global Environment Minister. The Global Environment Department was established in the EA in July 1990, and the whole EA was restructured so that climate change would be prioritized. With the support of the LDP, the EA was able to maintain its target of stabilization in the final text of the plan.

The years between 1990 and 1997 saw a one-way expansion of global environmental awareness in Japan. This was beneficial for the EA in one respect, as could be seen in 1990, but from another point of view it became more difficult for the EA to maintain its position as the leading bureau of environmental policies as other ministries and agencies also started to prepare for political debate on climate change and other environmental problems.

Also, within the EA, departments other than the Global Environment Department were occupied with other environmental problems. The Environmental Assessment Act was discussed in the Diet, and lawsuits over Minamata diseases reached a final agreement. The EA could not concentrate on COP3 at the most important time. These facts prevented the EA from maintaining its influence over Japan's final proposal.

4.3.2 Ministry of International Trade and Industry The MITI's situation was quite the opposite from that of the EA. Although the MITI was aware that climate change was related to energy consumption and therefore to almost all industrial activities, its responses toward the issue in 1990 were formulated only by the sections of society responsible for energy supply, environmental problems, and technological investment, and in particular those concerned with

Table 2. Comparison of the decisions and the contributors involved

| | June-August, 1990 | July-September, 1997 |
|---|---|---|
| Japan's final position on emissions | "Action Plan to Address Global Warming", October 23, 1990. Stabilization of per-capita CO ₂ emissions at the 1990 level by the year 2000 and, if advanced technology becomes available, stabilization of total CO ₂ emissions | Japan's position for the Kyoto Protocol, October 6, 1997. 5% reduction of CO ₂ , CH ₄ , and N ₂ O from 1990 levels within 5 years around 2010. A lower percentage allowed for those countries whose (1) per-capita emissions, (2) per GDP emissions are lower than the OECD average, or (3) whose population growth rate is faster than the OECD average |
| Background | After the Noordwijk Conference in 1989, some European countries started to announce their own CO ₂ emission targets. The Japanese government felt the need to set up Japan's target | In March 1997, the EU announced its negotiating position for the Kyoto Protocol: a 15% reduction from 1990 levels by the year 2010. Other OECD countries were pressured to come up with their proposals. Japan especially, as host of COP3, needed to show its leadership |
| Environment Agency (EA) | With global environmental problems becoming important in the 1980s, the EA earned political support. As Japan was becoming economically influential, the EA concluded that Japan should be responsible for climate change and that Japan should aim for at least stabilization of CO ₂ emissions. A working team, set up in the Agency, built a simple energy model and calculated possible reductions | With Japan hosting COP3, the EA considered it important for Japan to propose a strict reduction commitment. Supported by the results of AIM, the EA insisted that it was possible to reduce emissions by 6% to 8% from 1990 levels without harming the economy. The EA was dealing with urgent issues other than climate change, which prevented the EA from concentrating on climate change |
| Ministry of International Trade and Industry (MITI) | The MITI considered climate change an important problem, but they considered that strict reduction targets were impossible to achieve because it was difficult to reduce energy consumption. The target was calculated according to the revised long-term energy plan. The MITI concluded that 6% growth from 1990 levels was the minimum level of CO ₂ emissions possible by 2000 | The MITI considered the climate change problem related to energy policy and economic policy, so all divisions in the MITI became involved in the climate change policy. The ministry thought it important to have close connections with the United States. It thought stabilization would be a good proposal, both because it would be the proposal of the United States, and because it would be difficult for Japan to commit to reduction |

Table 2. Continued

| | June–August, 1990 | July–September, 1997 |
|---|--|--|
| Ministry of Foreign Affairs (MoFA) | Not very involved. The MoFA concluded that Japan should take a leadership role in global environmental issues because of political relations with other Asian countries. On the other hand, the MoFA also thought it important to maintain good relations with the United States | Very much involved. The ministry thought it was important for Japan, as host of COP3, to come up with a relatively stringent reduction proposal. The MoFA predicted that other countries were also aiming at around 5% as their final goal |
| Cabinet (Prime Minister) | Former Prime Minister Takeshita considered environmental issues important for Japan and made the EA the major agency dealing with climate change. Former Prime Minister Toshiki Kaifu was also interested in environmental issues. Some members in the LDP pressured the government to agree on a stringent target | Prime Minister Hashimoto attended the Denver Summit and UNGASS meetings, and found COP3 to be an important but difficult negotiation. He ordered the EA, MITI, and MoFA to consolidate Japan's proposal. Some members of Parliament established a project team to pressure the government to propose strong emission reduction targets |
| Industry (Keidanren) | Industry was not yet aware of the significance of the climate change debate. Their assertion only came out after the Action Plan was fixed. The Keidanren published its Global Environment Charter in April 1991 | The Voluntary Action Plan was published in June 1997. Some management-level people attended the meetings of the Joint Meeting of Related Committees and were able to stress the difficulty of emissions reduction |
| Environmental NGOs and public awareness | Almost no movement of environmental NGOs. Public awareness was beginning to rise | The Kiko Forum, a network of environmental NGOs, lobbied and appealed for stronger targets, namely the Alliance of Small Island States (AOSIS) target. Some of the key members of the Kiko Forum were CASA, Citizens Forum 2001, WWF-Japan |
| Experts (Japanese) | Some experts on energy supply | Some experts were included in the Joint Meeting of Related Committees. The projections of AIM were presented |

in emissions would be expected came from a macro-oriented perspective—how energy should be supplied. The estimate did not consider changes on the demand side of energy, which is responsible for emissions from the industrial and residential sectors. After agreeing to the stabilization-per-capita target, the NREA announced that 100 nuclear power plants would be necessary to achieve the target, but it did not say that Japan needed to reduce the demand for energy.

Between 1990 and 1997 was a harsh time for the MITI. There was a strong movement for deregulation, a trend that aimed to decrease the MITI's control over industrial activities. During these years, Hashimoto's appointment as the MITI minister cemented close ties between Hashimoto and the MITI. During the AGBM process, the MITI emphasized the high levels of energy efficiency within Japanese industry. When the EA proposed a 6% to 8% reduction target, the MITI demanded detailed data of the simulation, and these were reviewed by all the related sections in the MITI. The MITI found some unacceptable assumptions in the simulation, emphasizing that EA's projection was inappropriate. At the same time, the relevant sections in the MITI gathered information regarding possible reductions in the industrial sector, and calculated the total emission reduction that would be achievable.

4.3.3 Ministry of Foreign Affairs In the period around 1990, the MoFA saw climate change as a new field in which to expand overseas development aid (ODA), especially to other Asian countries that were undergoing rapid economic growth. The provisions of ODA itself, however, had little to do with the national emissions target of Japan. Thus, the role of the MoFA was as a mediator between the EA and the MITI to consolidate Japan's position. The Ambassador for Global Environmental Affairs was not appointed until just before the Intergovernmental Negotiating Committee (INC) was established to negotiate for the FCCC.

On the other hand, after it was confirmed that COP3 would be held in Japan, the MoFA rapidly started to become involved in the process. The MoFA's task was to make COP3 a success, and COP3 would not be called a success without an agreement to a protocol or other legal instrument. The MoFA therefore gave priority to the role of Japan becoming an intermediary between the EU and the United States, rather than becoming another party insisting on its own position. It considered that at least a 5% reduction would be necessary for the EU to accept Japan's proposal, but that there should be some kind of allowance so that it would also be supported by the United States. The MoFA's intentions matched the ideas of the EA, so the two administrations jointly proposed an emissions reduction target. The critical circumstance, however, was that the MoFA had no authority over domestic actions. Thus, the MoFA's proposal was not retained in the final text.

4.3.4 Prime Minister, cabinet and parliamentarians In both cases, the Prime Minister played an influential role, sometimes in a similar manner, but not always

Toshiki Kaifu was Prime Minister during the 1990 process, but it was considered to be Noboru Takeshita, the previous Prime Minister, who was the most influential. Takeshita is said to have been convinced of the importance of global environmental problems after listening to heated debates on the matter at the Toronto Summit in 1988. Following that summit, he supported the establishment of the Inter-Ministerial Council on Global Environmental Protection. Takeshita's change of mind turned the LDP "green." The Investigator Committee on Basic Environmental Problems in the LDP was chaired by Hashimoto, and other influential parliamentarians supported the movement. The LDP concluded that the term "stabilization" should be a keyword in the Action Plan, and suggested a compromise between the EA and the MITI.

In the 1997 process, Hashimoto became aware of both the significance and the difficulty of hosting COP3 after attending the Denver Summit and UNGASS. Since those meetings, he and his Cabinet Secretariat members took the initiative during the whole process. The Cabinet Secretariat actually brought the compromise proposal to the final round.

The behavior of other parliamentarians was also more mature in 1997 than in 1990. A coalition of ruling parties, the LDP, Social Democratic Party, and Sakigake, established a group called the Ruling Parties' Project Team, which was composed of parliamentarians interested in climate change. They considered a 7% to 10% reduction, a target even more stringent than that of the EA or MoFA, but the group's voice was not incorporated in the final proposal. The main reason might have been that their proposal was not explicate enough about how this target was to be achieved.

4.3.5 Industry In 1990, the response of Japanese industries to climate change was ambiguous. They were strongly against regulations and carbon taxes, but on the other hand the "environment" was generally perceived as a good chance to elevate a company's image. Incentives for the innovation of new energy-efficient technologies were always considered a virtue in a country that imports most of its necessary natural resources. Japan was enjoying a "bubble economy" in the late 1980s, which contributed to the positive reaction of industries to a nonprofit-making movement. Another reason why industries were not strongly opposed to the Action Plan was that they were not yet aware of the significance of the climate change problem. It was still considered as one of the many global environmental problems, and they did not predict the effect that climate change policies would have on their activities.

In April 1991, the Keidanren adopted the Global Environment Charter, a voluntary commitment from industries to the principle that they had to consider the effects of their activities on the global environment. It was a time when Japanese firms were being criticized for ruining the environment of developing countries, and the Charter was intended to improve this negative image.

After adoption of the Berlin Mandate, industry became increasingly aware of the issue. It became worried that, with Japan hosting COP3, the government

lead in the AGBM negotiations. The bubble economy was over, and the Japanese economy was suffering from long stagnation. When the Keidanren announced the "Keidanren Environmental Voluntary Action Plan" in June 1997, its intention was to make the first move—before the government requested the industry to do more (Keidanren, 1997). Some of the top-level people in the steel and automobile industries were members of the Joint Meeting of Related Committees, which had been held since late August 1997, and there they insisted on the difficulty of reducing CO₂ emissions. According to some interviewees, however, industry's perception was that their assertions were not taken up by the government. They said that the Joint Meeting was not informed of the actual debate going on inside the government.

4.3.6 NGOs and public awareness Environmental NGOs had similar experiences to those of industry. In 1990, there were few environmental NGOs apart from some liaison offices of international NGOs like Greenpeace Japan and Friends of the Earth. At that time, NGOs were not large enough to follow all of the various global environmental issues or government actions.

A 1988 survey of public opinion on environmental protection suggested that concern about global environmental issues such as ozone depletion, climate change, and desertification did exist in 1988, but that these issues were not top priority in the Japanese people's minds. In a survey asking people to choose up to three issues of special concern, these global environmental issues combined were only in 6th place. Only one-and-a-half years later, they had risen to the top of the list (Schreurs, 1996).

People's awareness of global environmental issues grew during the years from 1990 to 1997. In 1997 especially, the mass media often covered COP3. In another opinion poll conducted by the Prime Minister's Office in September 1997, the result showed that 79.6% of the people were concerned about climate change, supporting implementation of legislation to prevent that change. The result also showed that 72.0% did not mind their lifestyle returning to how it was in 1985 if that could stop climate change.

Environmental NGOs and other organizations also began to appear. The People's Forum 2001 was established in November 1993. Groups such as the World Wide Fund for Nature-Japan (WWF-J), and the Citizens Alliance for Saving the Atmosphere and the Earth (CASA) already existed, but started to prioritize the climate change issue. They, as well as other NGOs, established the Kiko Forum in December 1996 to strengthen their influence.

Although the activities of such groups were more developed than in 1990, they were still not able to participate in the decision-making processes of the government. The view of many in the government was that the assertions of the NGOs were immature or too ideological.

Organizations other than environmental NGOs also acted in 1997. For example, the Japan Federation of Lawyers proposed legislation for climate change mitigation on August 8, 1997, and sent the draft text to the MoFA, MITI, and EA. This draft called for a 7% reduction in CO₂ emissions by 2005, and a 10% reduction by 2010.

natural gas. It was claimed that altogether this would allow Japan to reduce its emissions by to 20% of the 1990 level by 2010 (Mainichi, August 9, 1997).

4.3.7 Experts in science, technology, and other related fields Although climate change is a political issue in which scientific knowledge plays a crucial role, few experts were involved in the Japanese decision-making processes in either 1990 or 1997. In 1990, only a few experts were involved in setting emission targets. In 1997, some experts who belonged to the Joint Meeting of Related Committees had a chance to speak, but the Joint Meeting was not a decision-making body. There were some energy experts who calculated the most likely reduction scenario for Japan. There were few experts from the natural sciences to explain, from a natural-mechanistic point of view, how far emissions would need to be reduced in order to mitigate climate change. Such scientific knowledge was imported from outside the country—the IPCC.

During the survey in 1990–1992, it was unclear whether domestic politics was not influential because no one was interested in climate change at that time, or whether it was because the decision-making process was not good at taking up ideas from the domestic stakeholders. The amount of domestic interest in the climate change problem grew rapidly in 1997, stimulated by Japan being the host of COP3. However, domestic politics was not considered to have been influential even in 1997. It can be suggested that the decision-making processes in both 1990–1992 and 1997 were very similar, and that they need to be opened up for other stakeholders to get fully involved. The Joint Meeting of Related Committees served as a place where the government promoted its thoughts, but not as a place where the committee members could fully debate plausible options.

Domestic stakeholders also have room for improvement. Even if the decision-making processes allowed wide participation, the stakeholders' voice would not be heard if that voice was not considered to be important. Proposals for reduction targets should have included concrete ideas about how to achieve those targets. Most of the proposals focused only on quantitative emission targets, while a small number of people were paying attention to debates on other items such as emission trading, the participation of developing countries, and sequestration by sinks. Even for domestic actors, clinging to one's assertions is not fruitful in any decision-making processes.

5 Conclusion

The conclusions of each assessment are now summarized briefly, followed by an integration of the three assessments.

Factors that influenced the decision-making processes. In both 1990–1992 and 1997, it was the international political factor that had the strongest influence on Japan's decision-making process. However, the situations in international politics in the two periods were different. In 1990–1992, Japan's intention was to be an

mediator between the EU and the JUSSCANNZ. This was considered to be because Japan was the host of COP3.

Outcomes of the decision-making processes. In both 1990–1992 and 1997, Japan's proposal played a mediating role between the EU and other developed countries. In both cases, but especially in 1997, it later became difficult to maintain the mediator role. This role also neglected the positions of the developing countries, which made it difficult for Japan to mediate between advocates of "developing countries' commitment" and those of "flexibility mechanisms."

Decision-making processes. Decision-making processes in both 1990–1992 and 1997 were led by debates within government, although there were more diverse actors in 1997 who wanted to take part in the process. Many of these newly stimulated voices such as industry, environmental NGOs, and parliamentarians, made proposals, but these actions had limited influence over the government's decision.

By integrating the three assessments, it can be concluded that the decision-making processes in 1990–1992 and 1997 were similar, and thus the same decision-making factor (international politics) was the primary influence, and the final decision played a similar role (mediator among Annex I countries) in both cases. The changes in decision-making factors between 1990–1992 and 1997 partly reflected how factors relating to international politics had changed.

Almost all types of decision-making processes have both strengths and weaknesses. Japan's decision-making processes may not be inappropriate if Japan intends to continue as a mediator in climate change negotiations at an international level. This decision-making process will also show strength at the policy implementation stage, since all the related ministries will have agreed to the policies when they agreed to the decision. However, there are also weaknesses. Such a decision-making process will not be good at promoting Japan's own position if other countries have no positions, and therefore there is no one to mediate between. In addition, it will not be able to reflect the latest scientific findings, which is important in climate change problems. It will be hard to maintain a mediator's role when other ideas, such as emission trading and sequestration by sinks, begin to influence the proposal, because then the proposal will not be fully debated in Japan from different angles. Such ideas do not need to appear in the proposal itself, but the government should be prepared for these proposals, since the emission figures change significantly if these issues are taken into account.

In order for Japan to overcome these weaknesses, or if Japan wants to become an environmental leader, two things are necessary: improvements in the decision-making process, and capacity building of domestic contributors.

Dealing with climate change is similar to dealing with other activities such as industry, transportation, residential sectors, and the climate itself. It means that the decision-making process should involve scientific experts to provide relevant

mists, and other relevant experts to put forward options which could be taken to mitigate the impact of climate change, industries to estimate the economic cost of these options, and consumers, or environmental NGOs, to report on how much of a burden the public is willing to accept.

Improvements in the decision-making process does not automatically mean that domestic voices are heard. It is also important for the actors themselves to be prepared to participate. Experts and engineers should be able to give the best available information and advice. Industry and NGOs should be able to propose a solution to resolve the different positions. Without such voluntary action, decision-making processes will not be able to change. However, it should also be noted that the involvement of different stakeholders does not always arrive at environmentally friendly decisions. It may reach the opposite conclusion, or it may not reach agreement if divergent views cannot be resolved. Even so, the first step is to play an active role in global environmental issues in the international arena.

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