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# The Environment

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A view of the Japanese  
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**Back Cover Photo**

A mountain of discarded  
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*Romanization*

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**The environment has become a topic of great concern for Japanese in the last few years, particularly following a series of reports that have highlighted the high level of dioxins in the environment. Even more than other social science issues, the very nature of environmental problems demands a regional and international approach. In this issue, we provide international perspectives on the environment not only from university academics but also from government officials and NGO representatives. Continuing from our last issue, we also offer a summary of an additional volume of the recently published *20 Seiki Shisutemu* [The 20<sup>th</sup> Century Global System], a six volume series edited by the Institute of Social Science, University of Tokyo.**

**Finally, a word of thanks to our loyal readership that has now been with us for five years! We appreciate you taking the time to answer the questionnaire in our last issue. Thanks to your help, we were able to learn more about how you are receiving *Social Science Japan* and to update our mailing list. Onward to the next five years!**

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# Japan and Whaling

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## SHIMA Kazuo

As an island nation, Japan has always turned to the sea for food. Even today, with access to all types of foods, Japan's annual per capita consumption of seafood is one of the highest in the developed world, 67 kg, more than three times the per capita consumption of fish in the United States. And from before recorded history, whales have been a part of our food culture.

In the early days, whales were taken when they entered bays and became stranded, or driven to the shore and trapped in nets. At the beginning of the seventeenth century, whaling activities became more organized and teams of up to 300 whalers ventured out to sea in fleets of many small boats. In the 1820s, however, whaling ships from the United States and Europe discovered the rich Japan whaling grounds and decimated the stocks, taking only oil and bone and dumping the carcasses at sea.

The opening of Japan to the Western world was in part a direct result of American whaling. American whalers wanted access to Japan for water, coal and supplies and pressured their government to demand it. In 1853, the "black ships" of Commodore Matthew Perry opened ports to American whalers and trade at gunpoint.

Modern whaling with harpoon guns--the Norwegian method--was introduced at the end of the nineteenth century. Japan sent whaling expeditions to the Antarctic for whale meat and oil starting in 1934 and to the North Pacific in 1939. The Pacific War, however, ended that.

After the Pacific War, with Japan in ruins and facing food shortages, General Douglas MacArthur arranged Japan's return to the Antarctic for whale meat. Throughout the late 1950s, whale meat literally kept the nation's people alive, providing 47 percent of all animal protein consumed.

Japan joined the International Whaling Commission (IWC) in 1951, soon after its formation in 1948. Unfortunately, in those days there was little knowledge in the IWC about whale population dynamics or the size of whale populations and catch quotas were set too high. By the early 1960s, blue whales in the Antarctic had become alarmingly scarce. In 1964, the IWC banned the catch of Antarctic blue whales, along with catches of Southern Ocean humpbacks. The decline in Antarctic blue whale stocks showed that better methods were needed to manage the take of whales. Scientists were brought into the IWC and the New Management Procedure (NMP) was devised in 1974.

The NMP required the collection of scientific data to calculate estimates of population numbers, population level (current population as a percentage of original population) and annual net reproduction (new births minus deaths). With this information, the scientists could determine how many whales could be removed annually from a population without incurring



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population losses. The NMP also required catch quotas to be calculated for individual stocks as well as species. Stocks estimated to be at 54% or less of the original population numbers were given protection status and no catch quotas were allowed. As a further safeguard, data uncertainty and safety factor allowances were built into the calculations. The NMP was adopted by the IWC in 1975.

During this period, Japan was the leading provider of scientific data. Based upon information from Japan, IWC scientists were able to estimate the population sizes of Antarctic and North Pacific whale stocks with greater precision. Unfortunately, this also worked against Japan because, as the scientists found that whale stocks were smaller than originally estimated, Japan's catch quotas were reduced. We accepted the lower catch quotas without protest, even though it caused great hardship. Millions of dollars worth of whaling vessels were scrapped, thousands of employees laid off, and dozens of whale processing facilities closed to conserve the whale stocks. No other country in the world endured such losses for the sake of conservation.

Most of the whaling countries in the Atlantic were barely affected by adoption of the NMP. The anti-whaling countries in the IWC--the U.S., U.K., Australia, and New Zealand--played the Atlantic whalers off against Japan by accommodating their requests for catch quotas in return for support for progressively lower catch quotas for Japan.

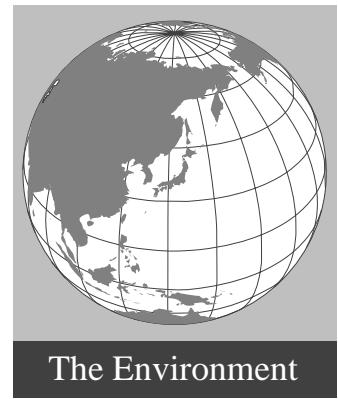
The United States, too, was drawn into this game. The U.S. maintained a bowhead whale fishery for its Alaskan Inuit even though its commercial whaling ceased with the depletion of Pacific gray whales. In the late 1970s, the IWC Scientific Committee determined that the North Pacific bowhead population was threatened with extinction and the bowheads were placed on the protected list. The U.S. then campaigned to allow its Inuit a bowhead catch quota that would satisfy cultural, religious and nutritional needs. Although the anti-whaling forces knew that a catch quota was contrary to the recommendations of the Scientific Committee, they agreed on a quota, conditioned on U.S. help in forcing Japan to abandon whaling.

Significantly, Japan has four small whaling villages with the same cultural, religious and nutritional needs as the Inuit, but the IWC, though recognizing this, has never given them the same consideration.

From the beginning of the anti-whaling campaign, Japan was the primary target. One reason was that Japan continued to take Antarctic whales after Norway and others abandoned the whaling grounds due to the development of substitute oils. Japan, unlike the Western powers, hunted whales for food, not oil, and had a pressing need for whale meat.

The anti-whaling groups constructed their campaigns like a drama, with high emotional content to wring money from the public. They cast themselves as heroes seeking to protect the fair maiden (whales) from a





villain (Japan). Their campaigns were designed to evoke fear (the alleged extinction of the world's largest mammals), love and hate. To Westerners, the Japanese were the perfect villains. All of the stereotypes of Pacific War propaganda were rolled out to depict Japanese as cruel, barbaric, and inhumane.

For the campaigns to be successful, though, the public had to be taught to love whales. This was achieved by associating whales with the cute and "intelligent" TV dolphin, Flipper. Then, the public was told that whales have a highly developed social life like orcas. They were told that whales sing, composing complex underwater symphonies to exercise their talent, and were gentle and friendly. Of course, the truth is much different. Great whales, particularly baleen whales, have almost none of these characteristics. After years of research, there is absolutely no evidence that whales are more intelligent than other animals. As for social and family bonds, many whales are loners, while most that travel in pods mate promiscuously. As for the "songs", scientists have determined these are mating calls, uttered only by male humpback whales. And whales do fight each other, particularly during mating season, with some fatalities.

The truth, however, does not deter the anti-whaling fundraisers from promoting their myths. For thirty-five years they have flooded classrooms with anti-whaling "teaching guides." They saturate television with pseudo-documentaries about whales and whaling. Environmentally correct editors accept and publish their fictions without any fact checking. Their version of whales and whaling is now accepted as knowledge and embraced by all who want to be regarded as politically and environmentally correct.

Where does this leave the Japanese? Outside of a Western culture that is regarded as "enlightened" even by many Japanese. Smeared and slandered by news media which value promotion of the environmental agenda more than respect for the truth.

Why then do the Japanese persist? Whaling certainly is not a profitable industry, even though the scarcity of whale meat has driven it from a cheap source of protein to a high priced commodity. It no longer provides much employment, particularly after the Japanese government ordered all pelagic and large-scale whaling companies dissolved in 1986.

The answer is both simple and complex. Pride is a large part of it. The Japanese have been badly treated: demonized and maligned. If all whales were in danger of extinction, Japan would not want to continue hunting them. But a number of species are not threatened with depletion. Minke whales, a fast-reproducing species, number over a million worldwide. According to the IWC Scientific Committee, there are over 760,000 in the Antarctic and 25,000 in waters east and north of Japan. Sperm whales, too, are very abundant, with total populations estimated to number almost 2,000,000.



From both biological and bio-diversity standpoints, there is no reason to prevent catches at levels below net annual replacement rates. And if the food resource is available to be utilized, what useful purpose will be served by wasting it? The desire for truth and justice also drives us to persist.

We have always said, "Science is on our side." With each passing year, scientific evidence accumulates to show that there are large numbers of whales, that most whale stocks are growing at a healthy rate, and that it is possible to harvest whales at levels that will not put the populations at risk of depletion. As for justice, we have been badly used by people who stop at nothing to achieve their aims. They have used lies, coercion, and fraud to prevent us from using whales. Implemented against the advice of the IWC Scientific Committee, the commercial whaling moratorium was achieved by the anti-whaling forces only by recruiting 19 small, developing states to pack the IWC vote in their favor. When we filed an objection, the United States threatened us with sanctions and forced us to withdraw it.

Again, in 1994, when the anti-whaling forces saw that science and the development by the IWC Scientific Committee of a risk-free procedure for calculating catch quotas removed all biological justification for maintaining the moratorium, they designated the Southern Ocean around Antarctica as a whale sanctuary. This violated requirements in the International Convention for the Regulation of Whaling (ICRW) that any regulatory measures shall provide for the "optimum utilization of the whale resources."

Despite these assaults on our right to maintain our culture and tradition, and our rights under the United Nations Law of the Sea and the ICRW, we shall not give in. Unfortunately, with an anti-whaling majority now entrenched in the IWC, the organization has become dysfunctional and has blocked all efforts to provide for the sustainable use of whales. Opposition to whaling is not universal; it reflects only the ideology of mostly Anglo-Saxon cultures, which have seized the majority at the 40 member IWC. Over 55 nations at the last meeting of CITES supported the downlisting of minke whales to free up their use.

The principle of sustainable use of renewable marine food resources, the maintenance of our culture and traditions, and the importance of defending truth and reason are too important to be abandoned in the face of an irrational ideology imposed by western eco-cultists. □

### Related Websites

The Institute of Cetacean Research: <http://www.whalesci.org/>  
The Japan Whaling Association: <http://www.jp-whaling-assn.com/>  
Whaling Library: <http://www.luna.pos.to/whale/>

# Japan's Global Environmental Policy in the late 1980s and early 1990s: Changing from an Eco-Outlaw to a Green Contributor

MIYAOKA Isao

**Although** the environment had been on the international political agenda since the early 1970s, it was in the late 1980s that global environmental politics rose to prominence after several important environmental events. These included the discovery of the ozone hole above the Antarctic in 1985, the world's worst nuclear accident at Chernobyl in 1987, and extraordinary heatwaves and droughts in 1988 which seemed explicable by the theory of global warming. The politicization of the global environment, however, can not be explained merely by new scientific knowledge and related events. At the end of the Cold War, developed countries suddenly jumped on the environmental bandwagon for a new collective identity. For instance at their Paris Summit meeting in 1989, the Group of Seven leaders devoted one third of the Economic Declaration to the environment. Behind this movement lay not only a growing environmental awareness among people but also the emergence of a new need among individuals, corporations and governments to appear green.<sup>1</sup> Like the principle of human rights, the principle of global environmentalism broadly sets out the context in which norms define behavior appropriate to "green" individuals, corporations, and states. In Western countries, wildlife and forest protection was a central element of environmentalism. Many citizens had internalized a preservationist norm-humans should not kill wild animals such as whales and elephants or destroy primeval forests for mere human consumption.

Japan also attempted to project a green identity, but in a different way. Its green identity was not only constituted by global environmentalism, but also formed through its interaction as an emerging economic superpower with other states, and within the context of the policy legacies of its domestic environmental policy in the 1960s and 1970s. In other words, its green identity was formed and projected in the contexts of the international and domestic structures. In the late 1980s, when as an economic superpower, Japan was increasingly expected to implement the principle of "Japan contributing to the world," it started to pay special attention to the global environment. For Japan, it was an ideal area in which not only to expand its business opportunities abroad but also to make a major international contribution, using its financial and technological capabilities for pollution control and energy saving. Japan identified itself as a state that had overcome pollution and promoted energy efficiency while pursuing economic development. The Japanese government believed that such experience was of great importance to developing countries seeking sustainable development. On the other hand, international wildlife and forest protection was given a lower priority in Japan's initiatives in protecting the global environment. During the economic boom of the late 1980s, Japan also increased its imports of living resources and extended its fishing activities on the high seas, which in turn caused "wildlife friction"



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## Notes

<sup>1</sup> Arne KALLAND, "Whose Whale is That? Diverting the Commodity Path," in Milton M.R. FREEMAN and Urs P. KREUTER, eds. *Elephants and Whales: Resources for Whom?* (Basel, Switzerland: Gordon and Breach Science Publishers, 1994), 163.

## Notes

<sup>2</sup> Brendan F.D. BARRETT and Riki THERIVEL, *Environmental Policy and Impact Assessment in Japan* (London: Routledge, 1991), 86.

<sup>3</sup> Caroline THOMAS, *The Environment in International Relations* (London: The Royal Institute of International Affairs, 1992), 26.

<sup>4</sup> Mark BRAZIL, "The Wildlife of Japan: A 20th-Century Naturalist's View" *Japan Quarterly* (July-September 1992): 338.

<sup>5</sup> It can be argued that Japanese awareness of cross-boundary environmental problems arose later than in other developed countries partly because this island nation had suffered relatively little from earlier cross-border problems (such as acid rain) in comparison with Europe and North America. Suggested in Hanns W. MAULL, "Japan's Global Environmental Policies" in Andrew HURRELL and Benedict KINGSBURY, eds., *The International Politics of the Environment* (Oxford: Clarendon Press, 1992), 357.

<sup>6</sup> For instance, Japan ratified in 1987 the 1980 Law for the Regulation of the Transfer of Endangered Species of Wild Fauna and Flora. Other examples are Japan's 1980 ratification of the 1972 Convention on the Prevention of Marine Pollution by Dumping of Waste and Other Matter (London Dumping Convention); and its 1980 accession to the 1971 Convention on Wetlands of International Importance especially as Waterfowl Habitat (Ramsar Convention).

between Japan and other countries. Indeed for example, Japan was the world's largest market for fish, whale meat, elephant ivory, and tropical timber. In this context, Western environmentalists singled out Japan as an environmental predator.

Japan's increasing contributions in the environmental area were not always appreciated, despite its intention to respond to international expectations and criticism. Skepticism toward Japan's environmental contributions is clear in the following statement by Brendan BARRETT and Riki THERIVEL:

The EA [Environment Agency]'s inability to broaden the scope of environmental policy has led it to become over-reliant on technological aspects of pollution control. Of great concern is Japan's wish to export this approach to developing nations. The approach presupposes that only money and technology are needed to solve global environmental problems. Although the progressive financing and 'technology-forcing' legislation which Japan has implemented so successfully are essential to solving global environment problems, a more fundamental change in value is also needed to attain sustainable development.<sup>2</sup>

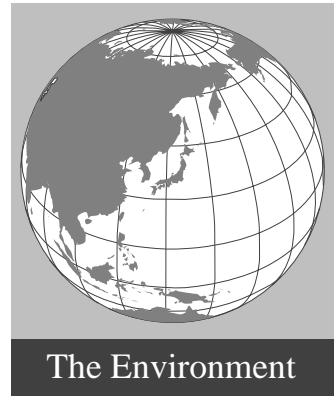
Then as now, members of "social ecology" and "deep ecology" movements tended to be skeptical about the effectiveness of technology as a means of solving environmental problems.<sup>3</sup> Moreover, Japan's willingness to confront the global environmental problem by hosting international environmental conferences came under suspicion. Mark BRAZIL states:

Hosting major international conferences is merely a way of obtaining maximum publicity and widescale international approval, thus further enabling the government to absolve itself of its duties and responsibilities without actually taking any concrete action.<sup>4</sup>

The international community did not take seriously most of Japan's contributions on environmental matters in the 1980s.

When it came to substantive environmental policies that might work against its business interests, moreover, Japan was slow to commit itself.<sup>5</sup> In many cases, Japan took longer than other developed countries to ratify international environmental conventions.<sup>6</sup> Japan's initially passive stance on the issues of ozone depletion and global warming created an impression of unwillingness to tackle global environmental problems.<sup>7</sup> Regarding the issue of ozone depletion, it was not until 1988 that Japan acceded to the 1985 Vienna Convention for the Protection of the Ozone Layer. Along with the Soviet Union and the United Kingdom, Japan opposed the 1987 Montreal Protocol on Substances that Deplete the Ozone Layer. Furthermore at the





London Conference in March 1989, Japan initially opposed a joint EC-US proposal to phase out some ozone depleting substances by the year 2000, changing its stance only on the last day of the conference.<sup>8</sup> After Japan was criticized for its reluctance to follow the general trend in the ozone depletion issue, it attempted to play a more active role with respect to the global warming issue.<sup>9</sup> At the November 1989 Noordwijk Conference, however, Japan again found itself opposed to the setting of specific targets for reducing carbon dioxide emissions.<sup>10</sup> In these cases, Japan was criticized in the international arena, not because it was implicated in the degradation of the global environment, but because it was initially reluctant to participate in constructing the international regimes to deal with these problems.

By 1992, however, environmental criticism of Japan was already on the wane. Faced with the severe international criticism mentioned above, around 1990 Japan adopted more positive environmental policies. For instance, Japan started to take more active stances on the issues of ozone depletion and global warming. In March 1989, Japan finally agreed to the joint EC-US proposal to phase out ozone depleting substances by the year 2000.<sup>11</sup> In October 1990, it set a goal for stabilizing its carbon dioxide emissions in the Action Program to Arrest Global Warming.<sup>12</sup> Moreover, Japan accepted a worldwide ban on ivory trading in October 1989.<sup>13</sup> In November 1991, Japan also agreed to a total ban on driftnet fishing on any high seas from January 1993.<sup>14</sup> In the words of John KINGDON, these actions seem to have been a result of a series of "policy windows," namely "opportunities for pushing pet proposals or conceptions of problems" in the global environmental issue area from 1987 to 1992, a period when major international environmental conferences were held one after another.<sup>15</sup>

Second, with more positive environmental policies, Japan also became more active as a sub-chair nation in the preparations for the 1992 United Nations Conference on Environment and Development (UNCED). In the UNCED process, emphasis was placed not on uncompromising "preservationism," but on the concept of conservation or sustainable use/development. This trend enabled Japan to make a realistic contribution by positioning itself between the developed countries, which were more inclined to stress preservation of the environment, and the developing countries, which looked to promote economic growth. In fact Japan was highly regarded, especially among developing countries, for pledging the largest amount of additional environmental aid to these countries.<sup>16</sup> Japan's way of "greening" through technology also matched the spirit of the conference. Principle 9 of the Rio Declaration provides:

## Notes

- <sup>7</sup> See Miranda A. SCHREURS, "Policy Laggard or Policy Leader?: Global Environmental Policy-Making Under the Liberal Democratic Party," *The Journal of Pacific Asia*, vol. 2 (1995): 3-33; Miranda A. SCHREURS, "Domestic Institutions and International Environmental Agendas in Japan and Germany," in Miranda A. SCHREURS and Elizabeth C. ECONOMY, eds., *The Internationalization of Environmental Protection* (Cambridge: Cambridge University Press), 134-161.
- <sup>8</sup> AIHARA Masayoshi, *Chikyū kankyō to hozen* [The Global Environment and Conservation] (Tokyo: Chirekisha, 1990), 134-135.
- <sup>9</sup> Environment Agency, Global Environment and Economy Study Group, *Chikyū kankyō no seiji keizaigaku* [Political Economics on the Global Environment] (Tokyo: Daiyamondosha, 1990), 119.
- <sup>10</sup> Linda STARKE, *Signs of Hope: Working Towards Our Common Future* (Oxford: Oxford University Press, 1990), 22.
- <sup>11</sup> AIHARA, *Chikyū kankyō to hozen*, 135.
- <sup>12</sup> Government of Japan, *Environment and Development: Japan's Experience and Achievement* (Tokyo, December 1991), 4.
- <sup>13</sup> Ministry of Foreign Affairs, *How Japan is Dealing with Global Environmental Issues* (Tokyo, 1990), 12.



## Notes

<sup>14</sup> *Nihon keizai shimbun*, 26 November 1989, (evening edition), 1, 19. In 1991, Japan also surprised attendants of the 1991 conference for the parties of the 1959 Antarctic Treaty by abandoning its long-held developmental policy for Antarctica. *Asahi Shimbun*, 8 May 1991, (evening edition), 5.

<sup>15</sup> John W. KINGDON, *Agendas, Alternatives, and Public Policies*, 2nd ed. (New York: Harper Collins College Publishers, 1995), 20.

<sup>16</sup> *The Financial Times* (15 June 1992). After the Rio Summit, MADDOCK and SCHREURS suggested that domestic, structural and political forces could make Japan a global or regional environmental leader in the near future. See Rowland T. MADDOCK, "Japan and Global Environmental Leadership" *Journal of Northeast Asian Studies* (Winter 1994): 45-46.; SCHREURS, "Domestic Institutions and International Environmental Agendas in Japan and Germany," 158.

<sup>17</sup> *The Financial Times*, 15 June 1992; *The Press*, 17 June 1992; *The Economist*, 13 June 1992, 61-62.

<sup>18</sup> Economic Planning Agency, *Keizai hakusho: Heisei 4 nenban* [Economic White Paper: 1992] (Tokyo: Ministry of Finance, Printing Bureau, 1992), 17.

<sup>19</sup> Bank of Japan, International Department, *Comparative Economic and Financial Statistics: Japan and Other Major Countries 1993* (Tokyo, 1993), 26.

<sup>20</sup> *Ibid.*, p. 156.

<sup>21</sup> *The Daily Yomiuri*, 1 May 1998, 3.

States should cooperate to strengthen endogenous capacity-building for sustainable development by improving scientific understanding through exchanges of scientific and technological knowledge, and by enhancing the development, adaptation, diffusion and transfer of technologies, including new and innovative technologies.

Fortunately for Japan, the United States became the new target of environmental criticism when it weakened some of the provisions of the climate change convention and refused to sign the biodiversity convention.<sup>17</sup>

Finally, "Japan bashing" in general began to fade around 1992. The Japanese economy started to slow down in the middle of 1991,<sup>18</sup> with the economic growth rate falling to 1.3 per cent in real terms the following year.<sup>19</sup> Similarly, the level of Japanese overseas direct investment declined sharply from 1990 to 1992.<sup>20</sup> As Japan's economy weakened and the US economy grew stronger, Americans began to view Japan differently. According to a survey conducted for the Japanese Ministry of Foreign Affairs between February and March 1998, the image of Japan for the American public became the most positive in the survey series.<sup>21</sup> As a result of these factors, international environmental criticism of Japanese economic activities waned. For now, few countries believe that Japan will dominate the world economy and insensitively destroy the global environment. □

## Related Websites

The Environment Agency of Japan:

<http://www.eic.or.jp/eanet/index-e.html>

The Japanese Ministry of Foreign Affairs:

<http://www.mofa.go.jp/index.html>

United Nations Environment Programme (UNEP):

<http://www.unep.org>

World Conservation Union: <http://www.iucn.org>

World Resources Institute: <http://www.wri.org>

# PRTR-A New Era of Chemical Regulation in Japan

## MASUZAWA Yoko

In March 1999, the government of Japan submitted the "Bill Concerning Reporting of the Release, etc. of Specific Chemical Substances to the Environment and Promotion of the Improvement of Their Management" to the Diet for deliberation. The bill, if approved by the Diet, will introduce a national Pollutant Release and Transfer Register (PRTR) system to Japan.<sup>1</sup> The bill has not drawn as much public attention as issues surrounding Dioxins or endocrine disrupters. However, the bill exemplifies the recent evolution of environmental law in Japan and the resulting PRTR would have a profound impact on chemical management in the future.

A PRTR is a "catalog or register of potentially harmful pollutant releases or transfers to the environment from a variety of sources."<sup>2</sup> The idea of the PRTR is rooted in Agenda 21, an international action program for sustainable development adopted by the United Nations Conference on Environment and Development (UNCED) in 1992. The Organization for Economic Co-operation and Development (OECD) has taken the lead in expanding PRTRs worldwide, including its 1996 recommendation to its member countries to take steps to establish national PRTRs. Some countries have long histories of PRTRs, while others are only now developing them. The details of these systems vary, but have common characteristics: a multi-media environmental emission inventory of potentially harmful chemicals, based mainly on reporting by individual facilities and readily accessible by public. There is general agreement that a PRTR is an effective tool for environmental management.

During the past few decades, Japan has developed two types of laws with which to address environmental risks related to chemicals. One type restricts the environmental media-specific release of chemical substances; the other restricts the production and use of chemical substances. Examples of the first category are the Air Pollution Control Law and Water Pollution Control Law, which set standards for permissible release of chemical substances into air or water. The second category includes the Law Concerning the Examination and Regulation of Manufactures, etc. of Chemical Substances, which requires producers/importers to have new chemical substances tested and reported, and authorizes the government to restrict manufacture, import or use of particular substances. The rigidly restrictive nature of these laws requires their target chemicals to demonstrate significant environmental risks based on clear scientific grounds. As a result, only a moderate number of chemical substances are subject to these laws, while many chemical substances that have been found to be hazardous but have not yet been proved to cause harm to humans or the environment, are virtually free from control. In order to prevent future damage from such "suspect" chemicals, the Japanese government has



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The views expressed herein should be attributed solely to the author.

## Notes

<sup>1</sup> The bill is comprised of several distinctive parts including the requirement of MSDS (Material Safety Data Sheet), and a PRTR. In this article, "the (PRTR) bill" refers to the PRTR part of the bill submitted by the government. Just before *Social Science Japan* went to press, the PRTR bill (as modified by the House of Representatives) was finally approved by the Diet on July 7, 1999, and the law was promulgated on July 13, 1999.

<sup>2</sup> OECD, "Pollution Prevention and Control-A Tool for Environmental Policy and Sustainable Development - Guidance Manual for Governments," (Paris, 1996), 15.

explored new approaches for controlling them.

Soon after the OECD recommendation was published, the Japanese Environment Agency launched a PRTR pilot project that involved eighteen hundred facilities in urban municipalities. The industrial sector, which had wanted to introduce a PRTR on its own volition, also initiated its own PRTR trials. Compared to the government and industry, the general public was at first not especially familiar with PRTRs. However recent episodes have made the general public increasingly aware of chemical risks, thereby increasing popular support for the idea of a PRTR.

The PRTR bill, jointly developed by the Environment Agency and the Ministry of Trade and Industry, stipulates that: 1) Facilities determine the quantity of release and transfer as waste of designated chemical substances. These facilities must submit the data to the (national) government. 2) The submitted data is filed into a computerized system, then aggregated by substance, business type, region, etc.; 3) The government shall estimate releases from non-point sources such as households, farmland and automobiles; 4) The government publish both the aggregated data and the estimated data together; 5) The filed site-specific data be disclosed to the public on request.

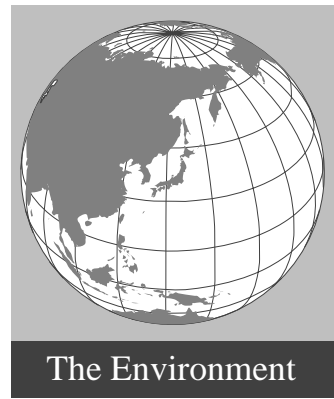
Although the PRTR bill contains the essential factors as a PRTR (and in some respects, it is more progressive than existing ones), its value has not been fully appreciated by stakeholders, especially by citizen groups. However, the important point here is that the bill has several important characteristics which could influence the future direction of Japanese environment law.

### **NOT 'Command and Control'**

One of the main objectives of the PRTR bill is to bring environmental releases of targeted chemical substances to socially desirable levels. It aims to achieve this objective by providing incentives, rather than giving specific commands, to parties concerned. As described above, in Japan the dominant mechanism to prevent potential damage from chemicals has been "command and control," i.e., setting emission/disposal standards or imposing use/production restrictions that are enforceable through administrative orders or punishments. In the case of release control laws such as the Air Pollution Control Law, emission standards are set to attain ambient environment quality standards, which indicate the desirable level of environment quality from the viewpoint of protecting human health or the environment.

The PRTR bill, by contrast, does not provide any standards for, or place any





limitations on the release (or production or use) of targeted chemical substances. Nor is there any ambient environment standard at which to aim. It only refers to the procedure of data collection, processing and disclosure. Nevertheless, experiences of PRTRs in other countries suggest that such a mechanism can work by providing strong incentives for facilities to control their own emissions.

An advantage of the incentive approach is that the regulator does not need as much information to set specific standards. For this reason and because the obligation of regulatees is less intrusive than with the "command and control" approach, an incentive-based system can involve more "suspect" chemicals. In addition, the incentive approach should allow the sources to choose the best methods to control their releases, making it more efficient. (On the flip side, it is uncertain how much total releases will actually decrease.)

#### **An Emphasis on Information**

In the PRTR bills, "incentives" arise from information. The bill acknowledges the value of release/transfer information and treats it as an independent policy tool. The bill would generate, disseminate and compile new information, and each stage of this process would contribute to improvements in chemical control.

It is true that existing environmental laws also have certain record keeping or reporting requirements. In most cases, however, the primary role of these requirements is to monitor regulatees' performance, or to verify their obedience to the standards, namely, to enforce the laws. Therefore many facilities, and of course the government, do not know if they are releasing or transferring a chemical substance (or how much they are releasing), until such a chemical is subject to a restriction. Even where release/transfer data exists, it often concerns a specific region or a single environmental medium. On the other hand, the function of the PRTR bill is to generate information in the shape of a comprehensive inventory of potentially harmful chemical substances released or transferred all over Japan. The number of chemical substances subject to the PRTR under the bill may be more than two hundred, including both regulated and unregulated chemicals.

Where release information is considered to be just a tool of enforcement, as with many existing environmental laws, it is sufficient if the data is possessed by responsible regulators. (Of course, the same data may be disclosed in accordance with the Freedom of Information Act (*Jôhôkôkai-hô*), which will be enacted in a few years.) This is not the case with a PRTR. The PRTR bill intends to motivate members of the general public as well as



### **Notes (continued)**

<sup>3</sup> According to the original PRTR bill, facilities were supposed to submit their reports directly to the national government. Among other things, the amended bill stipulates that facilities shall submit their reports to the national government via prefectural governors except when such reports are thought to include trade secrets.

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industry to control their own emissions by making them recognize the state of chemical release/transfer in their community or nationwide. The bill also expects that this data will enhance risk communication among the government, industry and citizens, which should in turn encourage improvements in chemical management. Accordingly, it is a clear goal of the bill to have information shared by all sectors through active dissemination.

Finally, the PRTR bill is designed to create an annual release/transfer inventory with the annual data being compiled and stocked. If the bill is approved, the government as well as anyone interested could trace the trends of releases/transfer year by year and assess the appropriate timing for more aggressive measures. In addition, once new scientific findings are made, experts in all sectors would be able to reexamine the stock of data from new angles and figure out what should be done.

### Citizens on the Regulatory Scene

As has been already suggested, the PRTR bill has the potential to change the relationship between government, industry and citizens in the environmental regulatory framework. Conventional environmental laws have emphasized the relationship between governments (national and local) and industry as regulators and regulatees. Regulated facilities are responsible to national and/or local governments for their activities, and governments are responsible to the citizens for the faithful implementation of laws. In other words, these laws expect little, if any, direct relationship between facilities (industry) and members of the general public. On the other hand, the PRTR bill enables citizens to share the aggregated emission data with governments and industry, and to have access to any site-specific data on request. The implication is that citizens, empowered by information, will act, while facilities will have incentives to communicate with citizens. In the long run, the PRTR bill may lead to the creation of direct channels between citizens and industry, collectively or individually.

The PRTR bill is now being discussed in the Diet. In response to criticisms of the bill, opposition parties have proposed counter-bills. At issue is whether site specific data should be actively disseminated or only disclosed on request, and whether local governments should play more active roles in the whole mechanism. As a result of this debate, in May, the House of Representatives amended the government bill so as to increase the involvement of local governments.<sup>3</sup> Whatever the final wording of the law, the PRTR will bring new perspectives into Japanese chemical regulation and environmental law.



# Clean and Efficient Coal Use in China and the Political Economy of International Aid

## SHIROYAMA Hideaki

Since the early 1990's, increased attention has been focused on the environmental impact of coal combustion in China as a cause of local, regional and global environmental problems. In China, coal still constitutes more than 70 percent of the total primary energy source and there seems little prospect of a large-scale conversion to oil, natural gas or a renewable energy source in the immediate future. Japan, Germany and the World Bank have drastically increased both direct and indirect assistance to China to address environmental concerns related to the high level of coal use. The effectiveness of existing international cooperation programs will be a key issue in future negotiations on global warming. For its part, China is also in the process of introducing a new regulatory framework to control emissions. However considering the huge challenge China is facing, it is difficult to predict how much international aid activities will help China address the environmental impact of coal combustion. In this article I would like to outline the basic types of international aid programs for coping with coal combustion in China and analyze the international and domestic factors which affect the effectiveness of international aid programs.

### Types of International Aid Programs

There are basically three types of international aid programs. The first group is composed of project finance plans for coal fired power plants developed by the World Bank, the Asian Development Bank, the Japanese Overseas Economic Cooperation Fund (OECF) and other institutions. These programs provide large scale and more efficient boilers for coal fired power plants. As the number of power plants is limited and because foreign companies can receive contracts for this work, international donors often implement this approach. The second type of program involves institution building and model city projects. These projects try to stimulate the domestic demand for environmentally friendly facilities in China. Institution building projects provide incentives for local enterprises by strengthening local environmental regulations such as emission fees. For example, the World Bank's Chongqing Industrial Reform and Pollution Control Project in Sichuan province provides an industrial reform fund (for environmental improvement and other purposes) on the condition that the Chongqing city government introduces an SO<sub>2</sub> emission fee system. Model city projects, on the other hand, allow local people to gain first hand experience of developing environmental friendly facilities. There is one OECF project in Liuzhou in the Guangxi autonomous region, and the Japanese government is planning three large-scale environmental model city projects in Dalian in Liaoning province, Guiyang in Guizhou province, and Chongqing in Sichuan province.

The third type of program involves technology transfer. These projects try to enable the low cost domestic production of environmental facilities in order



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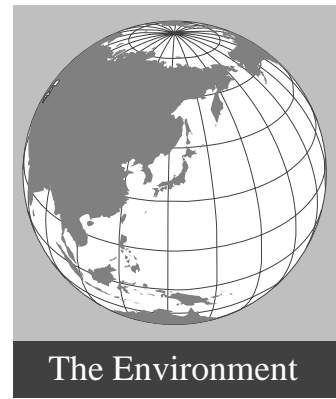
to help develop supply side capacity. Donors have an incentive to facilitate technology transfer because it can help reduce total project costs. For example, Green Aid Plan projects of the Japanese Ministry of Trade and Industry support the proliferation of simplified Flue Gas Desulfurization (FGD) and other technology that is suitable in the Chinese context. These projects also try to increase the localization of production to reduce costs. Another example is the Industrial Boiler Project of the Global Environmental Facility (GEF) implemented by the World Bank. This project promotes the production and diffusion of high efficiency industrial boilers by supporting the cost of licensing by foreign companies to nine Chinese local manufactures.

### **The Impact of International Forces**

There are several factors that influence the flows and allocation of international aid. The first of these are rules related to trade. The Organization for Economic Cooperation and Development (OECD) has long regulated export credit to avoid distortions in competition. Based on that experience, in 1991 OECD countries agreed to establish a series of rules (the Helsinki Package) to restrict "tied aid" (aid that has to be procured in the donor country). Under that package, "tied aid" is prohibited if the Concessionary Level (CL) is less than 35 percent. If the CL is between 35 and 80 percent, "tied aid" is permitted only when the project is deemed "Commercially Non-Viable (CNV)" and prohibited if judged to be "Commercially Viable (CV)." The decision about whether a project is CV or CNV is made on a case by case basis according to the calculation of cash flow in the abstract market. While many projects in the railway and hydropower sectors are approved as CNV, projects related to coal fired power plants and industrial boilers are usually not.

The Helsinki package may affect the provision of aid in two ways. First because a reduction of "tied aid" may weaken domestic support for international aid activities, the total amount of aid may be reduced. Second, allocation of aid may be biased toward CV projects, such as clean coal technology. Additionally NGOs strongly oppose aid to fossil fuel projects like coal fired power plants. For example, the Washington D.C. based Sustainable Energy and Economy Network (SEEN) has criticized the World Bank for supporting fossil fuel projects, a source of global warming, despite the Bank's acknowledgement that climate change is disastrous for poor nations. Even though coal is a major source of energy in China and there is room for utilization efficiency improvements through modernization of coal combustion facilities, SEEN is against the idea of aid agencies or export-import banks supporting fossil fuel projects in developing countries such as China. Although the World Bank is sensitive to this criticism, it continues to support coal fired plant projects. In the case of the Global Environmental Facility (GEF), however, NGO objections and the political atmosphere in





Washington have weakened support for coal related projects. Indeed, Environmentalist NGOs and trade advocates have made a tactical alliance against the "tied aid" projects on coal utilization efficiency improvement.

There is also the question of the motivations of foreign companies. There is a potential gap between the interests of donors that promote technology transfer to reduce project costs and the interests of private enterprises that seek to maximize their profits. In the case of the Japanese Green Aid Plan, manufacturers in Japan have little incentive to promote localization, but have been motivated to participate in demonstration projects knowing that the experience gained will be useful when they develop plans to export their facilities. In the case of the GEF's Industrial Boiler Project, the World Bank tried to identify foreign companies to provide licenses for small and medium size industrial boilers to be manufactured. However large companies such as ABB and Ebara declined to participate because the contract was too small and involved complicated procedures. At present, only small companies from North America and Europe are participating. In addition, there are also many potential conflicts between foreign companies and recipients. In the case of the Japanese Green Aid Plan, there are reports of disputes concerning the division of rights coming out from the joint demonstration process.

### **Domestic Forces in China**

In China, several domestic factors influence the nature and implementation of international aid. One element is domestic environmental regulation. In general, enterprises will voluntarily participate in energy efficiency improvement projects if the energy cost savings that result from increased efficiency are larger than the investment costs for efficiency improvements. However enterprises will rarely participate in emission control projects without the threat of penalties. In China, an "Acid Rain Control Area" and an "SO<sub>2</sub> Control Area" were set up in 1998 to control SO<sub>2</sub> emissions. In those areas, Flue Gas Desulfurization (FGD) is required for future power plants that will use coal with a sulfur content of more than one percent. Additionally, an SO<sub>2</sub> emission fee of 0.2 yuan per 1 kg of SO<sub>2</sub> is levied against every source of SO<sub>2</sub> emission. Even with this measure, many still believe that this emission fee is too low to induce enterprises to invest in FGD. In Chongqing, this emission fee system was established on an experimental basis and one simplified wet-FGD system (which can produce gypsum as a byproduct) was installed at the Changshou Chemical Plant as part of the Green Aid Plan. Financial data from this plant shows that operational costs alone (60 percent of which are electricity costs) are about 0.5-0.6 million yuan, and the plant turned a profit of 0.335 million yuan (0.15 million yuan by selling of byproduct + 0.185 million yuan as a result of the decrease in the emission fee). This means that emission fee reduction and



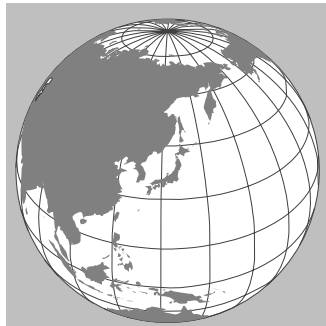
sales of byproducts can do more than merely cover operating costs.

Even though everyone agrees that there is need for strengthening regulation, the international community and the Chinese authorities disagree about the pace of change. Moreover the international community and the Chinese authorities differ over how to prioritize larger environmental goals. The international community prefers to implement measures to deal with global warming and regional acid rain (i.e. CO<sub>2</sub> and SO<sub>2</sub> reduction). For its part, the Chinese government has more incentive to deal with local environmental issues such as particulates resulting from coal consumption.

An additional factor is financial difficulties in China. At present, we are witnessing an "energy paradox" in China, the phenomenon that even profitable projects (such as energy efficiency improvement projects in which the energy cost savings through efficiency improvement are greater than the investment costs for efficiency improvements) are not being undertaken. There is a clear shortage of financial support for potentially profitable projects, a situation that has been exacerbated by the recent domestic debt crisis in China. For example, the dearth of financial support is one major reason for the slow development of domestic manufacturing capability of FGD by the Southwest Electric Design Institute in China. An environmental fund that will provide low interest loans for enterprises looking to develop environmental facilities could be a solution to this funding problem. However without the resolution of the overall financial crisis in China, the effectiveness of such an environmental fund will remain in doubt.

A third factor involves issues of organization and agency. Donor agencies have to work with their counterparts in China to implement international aid programs. The choice of recipient agencies will have a substantial effect on the nature of future projects. In the case of Japanese Green Aid Plan, Japanese agencies have been working mainly with Chinese line agencies such as the former Ministry of Electric Power and the former Ministry of the Chemical Industry. As those agencies are user agencies, they have a greater interest in obtaining improved technology than in developing manufacturing capabilities and reducing costs. This explains at least in part why Japan has had difficulty persuading China to promote localization.

On the other hand, in the case of the GEF Industrial Boiler Project, the GEF has been working with the former Ministry of Machinery that is focused on the supply side. This is one of the reasons why the GEF project is able to deal directly with the localization issue. Additionally, a multiplicity of jurisdictions sometimes complicates the process even further. The original counterpart of the Japanese Green Aid Plan is the former State Planning Commission. However when Japanese agencies have sought approval of some joint projects under the terms of climate change treaties (as "Activities Implemented Jointly"), they have had to negotiate with both the former Science and Technology Commission and the Ministry of Foreign Affairs, resulting in project delays.



## Conclusions

Outlined above are the multiple factors that have an impact on the effectiveness of international aid programs to deal with coal combustion in China. Those factors have to be seriously considered when we try to set up specific projects in China and also when we design institutional frameworks to support developing countries.

At this point, I would like to make two related comments from a policy design perspective. The first concerns the importance of innovative technology options to deal with environmental problems. In many cases, technology options define how risk trade-off is structured. Some of the options for efficiency improvement are effective in reducing all emissions including CO<sub>2</sub>, SO<sub>2</sub> and particulates, while others are not. (For example, using a Circular Fluidized Bed (CFB) boiler reduces SO<sub>2</sub> and CO<sub>2</sub> but increases particulate emissions.) Discovering technology options that simultaneously meet international and local needs is a pre-condition for local support of international programs.

The other key point to be considered with the technology option is cost. The existence of a low cost technology option reduces domestic resistance to the implementation of regulations and stimulates the supply of international aid flow, especially if donors can get some credit for CO<sub>2</sub> reduction. Partly because of high transaction costs, existing international programs tend to overlook the potential of the low cost option through operational and management improvement (one of the exceptional cases is German technical assistance for operational improvement of power plants). This is especially true concerning the industrial sector.

We should also consider the institutional design parameters of the Clean Development Mechanism (CDM) adopted under the Kyoto protocol of 1997,<sup>1</sup> especially the issue of calculating "additionality." The CDM demands that for a project to be eligible, it must satisfy the requirement of "additionality," namely that it could not be implemented without CDM finance. However it is possible that the most cost-effective projects for promoting clean and efficient technology are the most difficult to reconcile with the "additionality" requirement. This is because the most cost-effective projects are also the closest to commercially viable projects and therefore can not be easily classified as "additional." This means that renewable energy projects can be easily judged as "additional" but coal efficiency improvements may prove more problematic. How to define "additionality" will be a crucial issue in deciding where to target future financial aid for dealing with the environmental costs of coal combustion in China. □

## Notes

- <sup>1</sup> The CDM is an arrangement whereby governments or companies in developed countries provide financial assistance to developing countries to help them reduce CO<sub>2</sub> emissions. The developed country then receives credit for reducing CO<sub>2</sub> emissions worldwide.

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# Challenges to Regional Cooperation: Climate Change Issues in Northeast Asia

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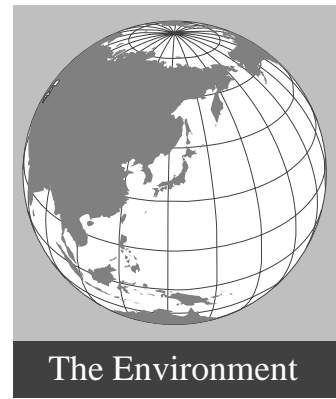
As the world has come to realize, climate change is a global problem caused by an increasing concentration of greenhouse gases (GHGs) in the atmosphere. If CO<sub>2</sub> emissions continue to increase at or near current levels for the next twenty years, concentrations will reach about 500ppmv (twice the pre-industrial concentration) by the end of the twenty-first century. The global mean surface temperature is expected to rise about two degrees Celsius over the same period. This is likely to cause a rise in sea levels, regional climatic change, changes in precipitation patterns and irregular weather. Since climate change is of a global nature, existing institutions for combating climate change so far have also been global. The 1992 Framework Convention on Climate Change (FCCC) urges the "Annex I" nations, namely industrialized countries, the former USSR and East European countries to take measures to return their GHG emissions to 1990 levels by 2000. The FCCC was followed by the 1997 Kyoto Protocol which calls for achieving legally binding targets for GHG emissions in the period between 2008 and 2012. Japan's annual average GHG emission from 2008 to 2012 is to be six percent below the 1990 level.

## Cooperation among Northeast Asian countries

Within this global institutional setting, cooperation in Northeast Asia to mitigate climate change has rapidly increased. Since 1991 Japan has organized the annual Asia-Pacific Seminar on Climate Change, a meeting that gathers experts from throughout the region to discuss possible regional cooperation on climate change. Another research-oriented meeting is the Asia-Pacific Network for Global Change Research (APN). APN meetings seek to foster regional scale research programs and to increase developing countries' participation in various international research activities. Yet another forum, established in 1992, is the Conference on Northeast Asia Environmental Cooperation. It consists of China, South Korea, Japan, Russia and Mongolia. Additionally, the Environmental Congress for Asia and the Pacific (ECO-Asia) is an annual ministerial level meeting where delegates discuss a variety of topics related to the environment. Separate from ECO-Asia, trilateral ministerial meetings between China, South Korea and Japan have also been conducted since 1992. While these forums for the exchange of views have not yet led to any concrete changes, they should be considered as an important first step.

Bilaterally, Japan has strengthened environmental cooperation with China in the last few years. The China-Japan Environment Cooperation Comprehensive Forum was set up in 1996 to provide a venue for the exchange of views on ways to collaborate in tackling China's urgent environmental problems such as air and water pollution, and acid rain. Recently, the Japanese government decided to lower interest rates on official development assistance (ODA) loans to China that are earmarked for





environmental projects. In 1997, Japanese grants to China totaled (US) \$3,012 million with loans amounting to (US) \$309 million, of which around fifteen percent are for environmental purposes. While the proportion of loans for environmental projects is likely to increase, the total amount of ODA is likely to decline due to the continued economic recession in Japan.

Apart from ODA, in 1996 Japan accepted eleven projects as AIJ projects (cooperative projects that reduce GHG emissions) with two more in 1997 and thirty-seven more in 1998. Among the projects developed in 1998, twenty are with Russia and nine are with China. Less cooperation has taken place between Japan and South Korea. As South Korea's economy has become more competitive with developed countries, Japan has offered no financial aid to South Korea since 1979. The Korean-Japanese Environmental Committee, established in 1994, has implemented thirty-one projects including studies on the effects of industrial materials on human health and the protection of seasonal (migratory) birds.

### **Reasons for Northeast Asian cooperation**

What are the incentives for Japan and other Northeast Asian countries to cooperate on climate change? Why has cooperation developed in Northeast Asia more quickly than in some other parts of the world? There are various factors that help answer these questions.

The first is a growing awareness of environmental problems stimulated by recent climatic disasters. One example is the heavy rainfall in the summer of 1998 that led to severe floods in China, South Korea and Japan, and caused the death of more than 3000 people in China. Although such extraordinary weather may or may not be a result of climate change, there seems to be enhanced awareness among people in the region about the issue.

Second, Japan has begun to anticipate receiving emission reduction credits. The six-percent reduction target that Japan agreed to at the Kyoto conference is considered to be a tough target for the nation. Articles 6 and 12 of the Kyoto Protocol allow Annex I countries like Japan to financially and/or technologically support GHG reducing projects in other countries, and count a part of the reduction achieved by that certain project as a reduction of the investing country's emissions. To achieve a six- percent reduction, Japan is seeking ways to achieve the target using these Articles. The willingness of the Japanese to cooperate in the Northeast Asian region is driven by the Kyoto Protocol.

Third, there is a growing recognition among Northeast Asian countries that



air pollution and acid rain are the most serious environmental problems of the region. Cooperation on acid rain in the region is still at a monitoring stage, but experts agree that reduction of sulfur emissions in China is the key to any solution. Compared to installation of desulfurization equipment, improvement of energy efficiency reduces emissions of both sulfur and CO<sub>2</sub> per a unit of electricity being generated.

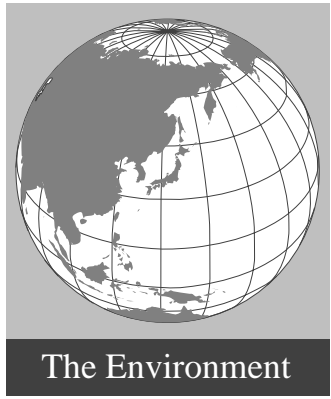
We must also realize that natural resources are not equally distributed in Northeast Asia. Japan imports 98% of its coal and almost 100% of its crude oil. South Korea is also dependent on imported energy sources. Moreover while China has a great amount of coal, it imports crude oil. Japan and South Korea worry that as China increases its consumption of oil, it may dominate the oil market while Japan and Korea become price takers. It is therefore in the interest of Japan and South Korea to reduce the speed of growth and consequently the demand for oil in China. This is why Japan and South Korea have been offering China technological assistance to improve energy efficiency in oil consuming equipment such as automobiles.

The growing economic power of China is another factor. More and more Chinese are expected to become wealthier in the next century. It is therefore quite natural that the automobile and home electric appliance sectors will grow in China. Starting projects with the Chinese business community may establish new economic relations with Chinese people, which will lead to higher investments and economic benefits in the long run. Regional security is another concern that serves to foster increased cooperation. Relations between North Korea and other countries in the region have become tense in the last few years. For example in 1998, North Korean submarines threatened South Korea several times, and North Korea launched a missile over Japan. Both Japan and South Korea are worried about North Korea's intentions and its ability to use force in the region. Strengthening ties among Northeast Asian countries is one way to counter the North Korean threat.

Finally, a desire to resolve Chinese and South Korean grievances about Japanese actions during World War II may also prove to be a catalyst to improve regional political relationships. Japan has dodged taking responsibility for the actions of its military in Korea and China. Official Japanese financial aid, which started in 1965 for South Korea and in 1979 for China, has been motivated by a desire to assuage past actions.

### **Into the future - stronger cooperation?**

It is clear that a range of factors, many of which are not related to environmental issues, drive cooperation on climate change in Northeast Asia. How will this cooperation develop in the future? Until very recently, memories of past conflicts and the failure of the Japanese to make a formal



apology for past aggression have made it difficult for South Korea and China to work with Japan. However, cooperation on climate change is a good starting point to develop more intimate relationships among Northeast Asian countries. Until now, "cooperation" in the Northeast region has basically been a "giving-receiving" relationship between a developed Japan and neighboring developing countries. This structure will change in the next century. South Korea is now a member of the OECD, and the Chinese economy is growing rapidly. On the other hand, the Japanese economy has been in the doldrums for the last few years. As a result of these economic fluctuations, "cooperation" may gradually move closer to an equal partnership. Climate change is a fitting issue to help these relations continue to grow.

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### WHAT'S NEW

*At the Information Center for Social Science Research on Japan at the Institute of Social Science, University of Tokyo.*

In cooperation with Osaka University of Commerce, the Center completed a preparatory survey for the Japanese General Social Survey in March of this year. 400 samples from men and women (aged 20 to 70) were collected in Tokyo and Osaka. The survey follows the same format of those conducted in the 1970s in the U.S., the U.K. and other countries and will help to learn more about the values and concerns of everyday Japanese. The general survey will commence in the year 2000.

For more information about this project and other Center activities, please visit our homepage:  
<http://www.iss.u-tokyo.ac.jp/>

# Spent Fuel and High Level Waste Policy in Japan: Science, Society and Rigid Decisions

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**Technicians** and scientists often present deep geological burial as a solution to deal with the high level waste and spent fuel arising from the use of nuclear energy. Whether it be in Japan, Sweden, or the United States, radioactive waste disposal and the back end of the nuclear fuel cycle are entangled in controversy with those in the nuclear industry, local citizens, academics and politicians holding differing views. While many of the technological barriers to protecting human health at the levels currently set by regulators have been overcome, not one country has implemented a controversy-free back end program of the nuclear fuel cycle. If the technological solutions are at hand, why is there no implementation? Simply stated, it is because controversy cannot simply be buried by science. We must realize that political and social values have influenced the nuclear regulatory structure since the inception of the industry. As a result, the national government of Japan, the industry and the people today face a dilemma regarding the future of nuclear energy and the by-products of its generation. This paper presents a brief overview of the issues surrounding spent fuel and high level waste (HLW) in Japan and also discusses the causes and possible environmental implications of this controversy which weighs upon the entire nuclear industry. We conclude with suggestions on how to better integrate science and social and political concerns so that the HLW issue does not become a blocking point which is detrimental to the environmental, economical and ethical principals of society.

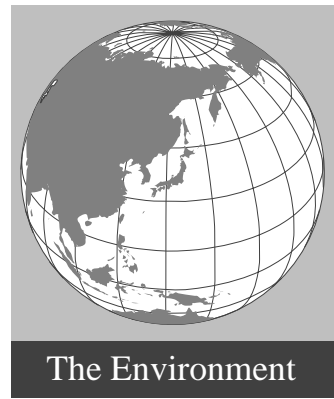
## Japan's Nuclear Program

Over the past 30 years, the government of Japan, primarily the Science and Technology Agency, the Atomic Energy Commission and the Ministry of International Trade and Industry, has increasingly focused energy R&D efforts on nuclear energy in order to meet the challenge of satisfying energy demand. Today, nuclear energy provides Japan with approximately 35% of its electricity and is expected to grow to 45% by 2010.<sup>1</sup> Despite these efforts, the nuclear energy industry is facing increasing opposition on many fronts including the question of appropriate sites as well as waste and fuel cycle issues. The most pressing concern is the back end of the nuclear fuel cycle. Depending on the fuel cycle chosen by a country, spent fuel (SF) can in fact be classified as high level waste (HLW) marked for disposal, or SF, which can be re-processed to extract plutonium for recycling (in which case it is stored for an interim period). The latter is the course that Japan is currently taking. In either case--direct disposal or recycling--many scientists in Japan as well as in the international community, generally believe that the technical challenges have been overcome and that all that is needed for a successful completion of the nuclear fuel cycle is "public acceptance."<sup>2</sup> As we will discuss, public acceptance of the back end of the nuclear fuel cycle is not necessarily the biggest barrier to the success of the nuclear industry. Japan is committed to a nuclear fuel cycle which is bound not only by local

## Notes

<sup>1</sup>Ministry of Trade and Industry (MITI), "MITI Advisory Council on Energy Committee Report," June 11, 1998.





commitments but also by international reprocessing commitments (reprocessing contracts currently exist with France and the UK and HLW shipments are delivered to the HLW storage facility in Rokkasho-mura, Aomori). Yet when this nuclear fuel cycle was conceived, no exit strategies or alternative plans were developed. Science and positive forecasts created a false sense of certainty and SF/HLW issues were not properly addressed. These failings, which have led to the current impasse, have deep seeded roots in the decision process and associated assumptions.

### Present Situation of HLW and SF in Japan

Currently, the spent nuclear fuel from Japanese utilities is stored on site at the reactors. The basic policy in Japan is to reprocess the spent nuclear fuel and recycle it as mixed-oxide fuel (MOX) either in light water reactors or in fast breeder reactors. The original plan states that the HLW, separated from reprocessing should be "vitrified and stored for a cooling period prior to disposal in the deep underground"(STA, 1998). Thus a repository would be needed only for HLW (material resulting from reprocessing, **not** SF). While this is the current plan, the entire nuclear energy policy is being re-evaluated as a result of the Atomic Energy Commission's (AEC) recent call for national consensus and delays<sup>3</sup> in domestic reprocessing. The reprocessing and recycling program in Japan faces delays and utilities are plagued by increasing SF at reactor sites that must be removed as stipulated by contracts between the community and the utility. With this discussion still underway, the process to establish a body responsible for the disposal in a deep geological repository in Japan is also in the development stage. The present plan calls for any SF beyond reprocessing capacity to be temporarily stored at interim storage sites (with a limited time frame of 50 years (HIBBS, 1998)) as the nuclear community looks for more permanent sites.

### Possible consequences

If the government does not develop flexible exit strategies, there will be a number of commitments broken, and a deterioration of trust between the government, utilities, and other involved parties.

At present, the following factors are on the table.

- Increasing the amount of spent fuel on site at reactors
- Commitments with local communities to remove spent fuel
- Delays in construction at Rokkasho-mura
- International reprocessing contracts
- No place to utilize MOX fuel<sup>4</sup>
- Increasing public concerns - both domestically and internationally
- Re-evaluation of the nuclear energy policy process in Japan

Several possible consequences may arise from this situation. From an



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## Notes

<sup>2</sup> Susan PICKETT, "Genshiryoku mura: gokeisei puroseshu to nichibe hikaku," [Nuclear Village: The Consensus Process and a Comparison of U.S. and Japan Policies] *Enerugi Foramu* (February 1999): 32-36.

## Notes

<sup>3</sup> Completion of the Rokkasho-mura Reprocessing Facility has been delayed until 2005. The reasons cited for the delay include design changes and plans to extend testing procedures. *Denki Shimbun*, 27 April 1999.

<sup>4</sup> Because plutonium, a weapons usable material (WUM), is embedded in MOX fuel, there is concern that with the appropriate technology and radiation protection, it can be extracted and used to construct a nuclear weapon.

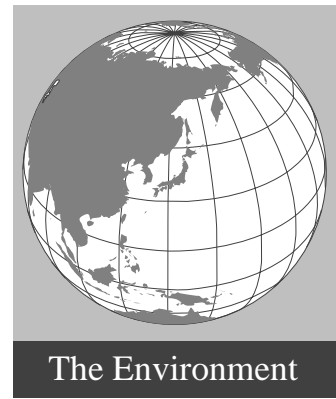
environmental standpoint, it is technically possible to build barriers that can protect the surrounding environment and public from the by-products of the nuclear fuel cycle. (Environmental concerns may arise if storage of either spent fuel and/or vitrified HLW is mismanaged. Frequent transportation of both SF and HLW requires careful management procedures. If there is no specific disposal policy, the public may grow concerned about how long SF or HLW can be stored.)

Lack of storage areas for spent fuel will increase overall energy costs for consumers and utilities, and more importantly, it may also lead to closing of existing reactors. If the process of choosing sites is not successful for a HLW facility, the industry will be faced with a premature shutdown of nuclear reactors due to increased costs, and therefore switch to alternative energy strategies. While such a scenario may be agreeable to some opponents of nuclear energy, it does not erase the fact that both the creators and users of nuclear energy must deal with SF. Furthermore, this course of action will not address the broader energy and environmental issues that have been hidden in the current policy, nor will it lead to improved policy and strategic planning.

Because the burning of MOX fuel is restricted, (which is a result of a commitment to a closed fuel cycle amidst an unwelcome environment) a surplus of plutonium has been created. If a plan to implement MOX recycling is not approved, utilities will have greater stockpiles of plutonium, contradicting the national policy of no plutonium surplus and raising international concerns about proliferation risks. The majority (20 tons or more) of separated plutonium is now stored in Europe and requires reshipment to Japan. It should be remembered that plutonium shipments in 1992 generated international attention.

A build up of SF at nuclear sites would violate commitments made by utilities to remove all SF from reactor sites. It is possible from a technological perspective to expand the SF storage capacity on a site. Expansion is also more economical than reprocessing. Yet doing this may create doubt about the government's commitment to the closed nuclear fuel cycle and would require additional negotiations with local communities.

While SF storage itself is technically one of the safest and simplest tasks in the entire nuclear fuel cycle operation, because of institutional rigidity and past commitments, there is no easy solution to the current impasse. Although some energy experts may believe that the current difficulties warrant abandoning nuclear energy itself, retreat is not a solution.



### Where Science and Society Intersect

The range of definitions of HLW from country to country is a good example of the different ways in which science is understood and perceived throughout the world. In Japan, HLW is only produced from the reprocessing of SF. This is not a scientific based definition, for in fact the radiation levels and associated risks are at certain points in time higher than that of SF. One of the underlying factors here is that risks associated with radioactive material change with time. This becomes particularly controversial when the definition is portrayed as scientific or absolute.

In underlying risk assessments, values clearly come into play. Decisions must be made regarding the level of acceptable risk and the overall time frame. If the interested parties are not involved in the characterization of this risk, questions can be raised later by interested parties regarding the legitimacy of the assessments. Such an intersection between science and society is evident in the siting decisions for waste repositories. Many of the decisions made regarding nuclear energy were made to placate interested parties, be it cooperatives of fishermen or local assemblies. At best, scientific information played only a minor part in the local negotiation process.

### Lessons and Causes

Today, various countries are investigating possible sites for a long-term geological repository. Because of the perception that there is a consensus in the scientific community that no other option is feasible, (OECD; NORTH, 1997) leaders have not been inclined to explore other options. However, proceeding with geological disposal based on this "scientific consensus" (when other scientific challenges and uncertainties have been raised, NORTH, 1997; MILLER, 1998), may gloss over the fundamental shortcomings in the decision process. Indeed, this could give rise to future opposition if the decision process does not adequately involve the public. The controversy regarding the implementation of deep geological barrier is evident in the public opposition, technical uncertainties, cost increases, and schedule delays experienced by the U.S. and Sweden. It is clear that the decision process must integrate factors beyond simple scientific data. A rigid decision making process, confusion surrounding the relationship between science and politics, and deterioration of trust are the issues at the core of spent fuel and high level waste controversy.<sup>5</sup>

What has given rise to these three factors? With each, a combination of the treatment of uncertainty, public involvement and definition of the decision interact. It is not a question of the right science or perspective. A "dead hand" decision may have been determined to resolve the immediate issue in



### Notes

- <sup>5</sup> James L. FOSTER, "The Dead Hand of Environmental Regulation: Limitations of Policy Evaluation and Adaptation," Massachusetts Institute of Technology, Center for International Studies, July 1998.

an absolute sense, thus denying uncertainty and seemingly placating the opposition for the moment. Whether that decision be regarding a lack of indigenous resources, as in the case of Japan; a lack of public support for nuclear energy, as in Sweden; or a push for a permanent repository as in the United States, the decision requires the realization that the situation and environment may change in the future. If the process neglected key decision makers in the beginning, or set in place assumptions without allowing for flexibility, any change in economic conditions and other societal needs or scientific information would be difficult to incorporate and inevitably give rise to opposition and delays. Increasingly, policy makers believe that their goals can be best achieved by allowing their ideas to evolve, being shaped by others involved in the process.

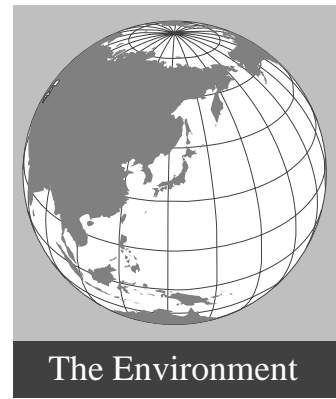
### **Conclusion**

Science can play a role in the decision process although it alone cannot justify or hide the decision. Yes, the nuclear fuel cycle is a political issue, but science and technology are not exogenous to policy--they do not singularly determine, nor are they exclusively determined by policy. As SKOLNIKOFF (1996) pointed out, determined governmental policies can have a significant influence on the direction of technology. Science is a part of society and should not be separated for the purpose of ensuring a right answer. There is a need to recognize the uncertainty in all science and future estimates, establish a program which ensures accountability on the part of all, and seeks creative solutions and critically examine whether consensus has been stated simply to achieve a short term fix. As Albert EINSTEIN said, "the right to search for truth implies also a duty not to conceal any part of what one has recognized to be true."

Japanese policy makers are perhaps in the best position to learn from other countries as they develop policy for SF and HLW. Most important are the roles of the multiple stakeholders in the decision process. It must also be recognized that scientific uncertainty remains and must be confronted. If the uncertainty is hidden from those with a stake in the process, thus neglecting appropriate responsibility of all involved, and if the regulatory structure does not allow for new information to be incorporated, a long-term sustainable solution will be difficult to achieve.







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# UNESCO and World Heritage

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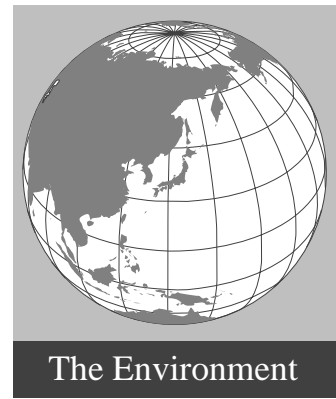
Seven areas in Japan have been selected as world cultural heritage sites. They are: "Himeji Castle" in Ehime prefecture, "Buddhist Monuments in the Horyuji Area" in Nara prefecture, "Historic Monuments of Ancient Kyoto" (in the cities of Kyoto, Uji and Otsu), "The Historic Villages of Shirakawa-go and Gokayama" in Toyama and Gifu prefectures, "The Hiroshima Peace Memorial (Genbaku Dome)" in Hiroshima prefecture, "The Itsukushima Shinto Shrine" in Hiroshima Prefecture, and "The Historic Monuments of Ancient Nara" in Nara Prefecture. The island of Yakushima in Kagoshima prefecture and "Shirakami-Sanchi" in Akita and Aomori prefectures are Japan's two world natural heritage sites. The idea of a "world heritage" and the term *sekai isan* have recently drawn great attention in Japan. Numerous books about world heritage have been published and travel agencies have organized "world heritage tours." Photo exhibitions have also been held throughout Japan and a Japanese television station airs a weekly documentary program on world heritage sites. Yet most are not aware that the United Nations Educational Scientific and Cultural Organization (UNESCO) adopted the World Heritage Convention in 1972, twenty years before Japan's ratification in 1992.

### **The Birth of World Heritage and Cultural Heritage**

At the 17th General Conference of UNESCO in 1972, the "Convention Concerning the Protection of World Cultural and Natural Heritage" was adopted. The idea of preserving cultural properties can be traced to the 1920s when international organizations began to discuss the necessity of international treaties to protect cultural, artistic and historical properties from the ravages of warfare. After UNESCO was established in 1945, international treaties for the protection of cultural properties became a reality. UNESCO adopted the "Convention for the Protection of the Cultural Property in the Event of Armed Conflicts" (the Hague Convention) in 1954 and the "Convention on the Means of Prohibiting and Preventing the Illicit Import, Export and Transfer of Ownership of Cultural Property" in 1970.

UNESCO has also taken a leading role in promoting the conservation of nature. In 1948, the International Union for Conservation of Nature and Natural Resources (IUCN) was established in response to an appeal by UNESCO and the French government. In 1971 UNESCO launched the "Man and the Biosphere (MAB) Programme" which seeks to find better ways for man to interact with the biosphere, the zone of the planet where life naturally occurs.

In 1972 at the United Nations Human and Environmental Conference in Stockholm, a convention for the protection of cultural heritage was proposed by specialists from UNESCO. At the same time, specialists from the IUCN proposed a convention for the conservation of the world's natural



heritage. These two ideas were drafted together into one convention and adopted as the "Convention Concerning the Protection of World Cultural and Natural Heritage" at the General Conference of UNESCO. The Convention's focus on both cultural and natural heritage makes it a unique legal instrument. This is expressed in the world heritage emblem, which is round, like the world, but at the same time is a symbol of protection. The central square is a form created by man and the circle represents nature, the two being intimately linked.

### **The Appeal of the World Heritage Convention**

Currently 156 states have signed the Convention making it the largest of its kind in the world. By signing the Convention, each country pledges to conserve the sites in its own territory, some of which may be recognized as world heritage sites. The international community as a whole then shares the responsibility of preserving these sites for future generations. The primary mission of the Convention is to define and conserve the world's heritage by drawing up a list of sites (the World Heritage List) whose outstanding values should be preserved for all humanity. The protection of these sites will be ensured through close cooperation among nations.

### **The World Heritage List**

To be included on the World Heritage List, a site must satisfy the selection criteria adopted by the World Heritage Committee. A cultural monument might be a masterpiece of creative genius, or have exerted great architectural influence, or be associated with ideas or beliefs of universal significance, or it may be an outstanding example of a traditional way of life that represents a certain culture. A natural site may exemplify major stages of the earth's history, or represent ongoing ecological and biological processes, or contain the natural habitats of endangered animals, or it may be a scene of exceptional beauty. When a site on the List is seriously endangered, it may be inscribed on the "List of World Heritage in Danger" that entitles it to special attention and international assistance.

### **World Heritage and Human History**

All world heritage sites are chosen because of their exceptional natural beauty or because they are ruins of a great civilization or masterpieces of mankind. Some sites have been selected because of their important place in world history. During World War II, millions were systematically starved, tortured and killed in the "Auschwitz Concentration Camp" in Poland. The camp has been inscribed on the World Heritage List as a symbol of the cruelty man displayed to his fellowman in the twentieth century.

From the fifteenth to the nineteenth century, "The Island of Gore" (off the



coast of Senegal near Dakar) was the largest slave-trading center on the African coast. Ruled in succession by the Portuguese, Dutch, English and French, its architecture is characterized by the contrast between the dark slave-quarters and the elegant houses of the slave traders. The island continues to serve as a reminder of human exploitation and yet also provides a place that can aid reconciliation.

### **The Genbaku Dome**

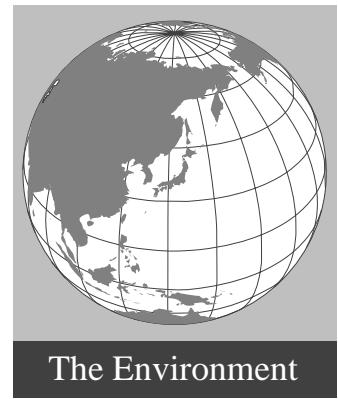
At the end of the World War II, atomic bombs were dropped on the Japanese cities of Hiroshima and Nagasaki. The atomic bomb dropped on Hiroshima destroyed the city, including the commercial exhibition hall designed by the Czechoslovakian architect, Jan LETZEL (1880-1925). The remains of the building have been preserved as a symbol of Hiroshima's pledge to abolish nuclear weapons and to seek lasting peace. The Genbaku Dome (as it has come to be known) was nominated as a world heritage site because more than half a century after the unleashing of the most destructive force ever created by man, it still stands as a stark and powerful symbol for world peace. Unlike other world heritage sites in Japan, the Genbaku Dome was nominated in response to a strong groundswell of pressure from the Japanese people. After the ratification of the World Heritage Convention in Japan in 1992, a campaign to resister the Genbaku Dome as a world heritage site began in Hiroshima. Eventually over 1.65 million people signed their names to a nation-wide signature drive calling for the dome to be recognized as a world heritage site. In September 1995, the Japanese government formally requested that UNESCO add the "Hiroshima Peace Memorial (Genbaku Dome)" to the World Heritage List.

The World Heritage Committee evaluated the nomination and in 1996 formally recognized the Genbaku Dome as part of the heritage of mankind. However the selection was not without its critics. During the discussion over the nomination, delegates from China and the United States made the following statements:

### **CHINA**

During the Second World War, it was the other Asian countries and peoples who suffered the greatest loss in life and property. But today there are still [a] few people trying to deny this fact of history. As such being the case, if [the] Hiroshima nomination [is] approved to be included on the World Heritage List, even though on an exceptional basis, it may be utilized for harmful purpose by these few people. This will, of course, not be conducive to the safeguarding of world peace and security. For this reason China has reservations on the approval of this nomination.





## UNITED STATES OF AMERICA

The United States is dissociating itself from today's decision to inscribe the Genbaku Dome on the World Heritage List. The United States and Japan are close friends and allies. We cooperate on security, diplomatic, international and economic affairs around the world. Our two countries are tied by deep personal friendships between many Americans and Japanese. Even so, the United States cannot support its friend in this inscription. The United States is concerned about the lack of historical perspective in the nomination of Genbaku Dome. The events antecedent to the United States' use of atomic weapons to end World War II are key to understanding the tragedy of Hiroshima. Any examination of the period leading up to 1945 should be placed in the appropriate historical context. The United States believes the inscription of war sites outside the scope of the Convention. We urge the Committee to address the question of the suitability of war sites for the World Heritage List.<sup>1</sup>

The Hiroshima Peace Memorial, the Genbaku Dome, is a stark and powerful symbol of the achievement of world peace for more than half a century following the unleashing of the most destructive force ever created by humankind. When the Genbaku Dome was officially added to the List, HIRAYAMA Ikuo, a renowned Japanese painter and Goodwill Ambassador for UNESCO, wrote the following: "The will of the world is that we begin the process of abolishing nuclear weapons. The value of cultural heritage sites is not based merely on their antiquity. By celebrating the history expressed in their cultural heritage sites, nations and their citizens can restore their pride and humanity and in so doing, be better able to work for peace and the protection of human rights. That is why the cultural heritage sites are invaluable. By fostering international cooperation to protect the world heritage, awareness of cultural differences and respect for the history of other cultures can be realized. We must try to pass on the heritage of mankind to the next generation with respect." (*Asahi Shimbun* Dec. 6, 1996. Translated by Arai)

Standing as a mute witness to the tragic history of man's first use of an atomic bomb, the Genbaku Dome is a site of universal value. Its inclusion on the World Heritage List is international recognition of this value and an indication that the international community is developing a common awareness that nuclear weapons must never be used again.



### Related Websites

<http://www.unesco.or.jp>  
<http://www.unesco.org/whc/>  
<http://www.city.hiroshima.jp/peace/1-1.html>

## Notes

- <sup>1</sup> World Heritage Committee, SESSION XX, Merida, Mexico, 2-7 December 1996 WHC-96/CONF.201/21, Annex V.

# Global Environmental Governance and International Trade Competitiveness: Are Developing Countries at the Losing End?

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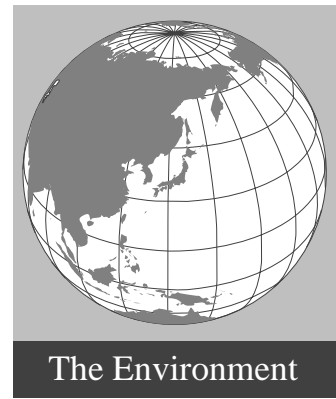
The views expressed in this paper are the personal opinion of the author and do not, in any way, reflect those of the Ministry of Science, Technology and the Environment, Malaysia or any other organization to which he is affiliated.

## Introduction

Since the 1992 United Nations Conference on Environment and Development in Brazil (commonly known as the Earth Summit), environmental issues have gained worldwide attention. Among the major global environmental issues that are currently subject to multilateral negotiations are the following:

- (i) Convention on Biological Diversity - this concerns the conservation of plant genetic resources such as the forest ecosystems
- (ii) Convention on Climate Change - this concerns controlling the amount of greenhouse gas emissions, such as carbon dioxide, into the atmosphere, so as not to upset the chemical composition of the atmosphere. Some of the harmful effects include global warming which may lead to unusual weather patterns.
- (iii) Montreal Protocol on Substances that deplete the ozone layer - this concerns controlling the release of chemicals, such as chlorofluorocarbons, which destroy the ozone layer, thereby causing increased radiation to enter the earth. The effects include skin cancer, eye cataracts and other harmful effects to human health and plants.
- (iv) Trans-boundary movement of hazardous chemicals - this concerns the dumping of toxic and hazardous chemicals from one country to another and into oceans.
- (v) Trade and Environment Issues - Under the World Trade Organization, trade and environment issues have gained prominence recently with the linking of environment with trade issues. There is concern that some production activities may be harmful to the environment and therefore there is a need to monitor and control such production activities through penalties or eco-taxes.
- (vi) Environmental Standards - As with ISO 9000 quality standards, environmental performance standards have become the norm with the adoption of ISO 14000 standards that impose strict requirements for environmental performance on production activities. Any product that does not meet these standards may not be marketable overseas, therefore affecting the competitiveness of nations especially of developing countries.

These environmental issues have profound implications for trade competitiveness and sustained economic growth of nations. For example, under the trade-environment debate, production activities of developing countries are coming under close scrutiny by the international community.<sup>1</sup> There is concern that developing countries are polluting the environment much more than the developed countries and therefore there is a need to impose additional duties or taxes on those products. In this regard the dolphin-tuna and shrimp-turtle cases<sup>2</sup> serve as classic examples of how one developed country tried to impose its environmental



preference on other countries.

In the forestry sector, there is concern that developing countries are exploiting their tropical forests and attempts have been made to label tropical wood products. The purpose of this labeling, known as "ecolabelling," is to encourage consumers to be selective in buying these products. The ultimate result is that tropical wood products becomes less saleable compared to temperate forest products which emanate mostly from the developed countries.

The cost of complying with these standards can be prohibitive and therefore developing countries may either incur additional expenditure in meeting these standards, or if there were unable to meet these standards, then they may lose market share for these products.

Thus it can be concluded that each and every global environmental issue has a direct impact on the economic and social health of nations. The main concern here is that developing countries are at the losing end of international environmental negotiations as compared to the developed countries. This disparity between the developing and developed countries is expected to widen, as environmental issues become more complex and invade every facet of life.

### **Challenges for developing countries**

The challenge therefore is how developing countries can ensure that global environmental issues are negotiated and governed equitably so that their interests are safeguarded, taking into consideration their level of socio-economic development. In this respect developing countries face many constraints in participating in a meaningful manner in international negotiations on the environment.

Multilateral negotiations are based on the premise that negotiators are equally equipped with the necessary knowledge and skills to discuss and arrive at well informed consensus building resolutions. In the context of current multilateral environmental negotiations, though, how far do developing country negotiators meet this requirement compared with their counterparts from developed countries? Some of the pertinent concerns that arise are:

- (i) How effective have developing country participants been at multilateral environmental fora? Does lack of knowledge and skills delay consensus building or lead to decisions that are not optimal or pragmatic?
- (ii) What kind of information do representatives of developing countries



## **Notes**

<sup>1</sup> Some of these concerns are based on perceived notions without strong objective analysis. For example, the widely accepted pollution-haven hypothesis claims that dirty industries migrate to locations with less stringent environmental standards, in this case developing countries. However, a recent study (LETCUMANAN R. 1999) finds that there is no empirical evidence for this hypothesis. In fact, it was found that most polluting industries are moving among developed countries through foreign direct investment rather than from developed to developing countries.

<sup>2</sup> The United States brought both of these cases for arbitration to the Dispute Settlement Panel of the World Trade Organization. Analysts view these cases as disguised attempts to resolve trade issues through environmental means.

## Notes

<sup>3</sup> These findings by the United Nations University were based on surveys of perceptions of developing country negotiators at Climate Change Conventions, training workshops for developing country negotiators and other activities carried out over a two-year period from 1996 under the UNU/IAS Environment and Multilateral Diplomacy Project. For further details please refer to BRENDAN and CHAMBERS, 1998.

require for effective negotiations? Is adequate research being undertaken to substantiate the concerns of developing countries? Is the information too technical? Is there a gap between the generation and dissemination of information?

(iii) Are developing country concerns effectively communicated at international fora? Are the negotiation mechanisms adequate? Is participation sufficient in terms of numbers and expertise? Are present regional and interest groups effective in marshaling support? Is there a sustained effort to follow-up and follow-through on negotiations and decisions at the regional level?

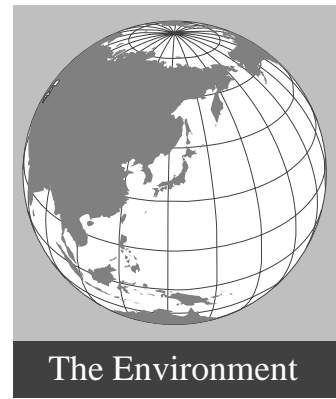
These concerns were well founded. Studies conducted by the United Nations University in Tokyo highlighted how negotiators from developing countries are hampered by inadequate preparation, insufficient information and statistics, poor communication between experts, negotiators and among developing countries, and inadequate representation at environmental fora.<sup>3</sup> In particular, the study found that 68% to 74% of respondents felt that developing countries are disadvantaged in terms of access to scientific and technical knowledge, and in the size and capabilities of delegations when compared to their developed country delegation. About 63% of the respondents felt that these disadvantages affected the outcome of the negotiations.

### Participating Effectively

The basic issue here is that there is a wide disparity between the capabilities of developed and developing countries in terms of knowledge, expertise, delegation size, financial resources, and preparation, which constrains effective participation at international environmental negotiations on an equitable basis. While developing countries may lack resources, in the context of multilateral environmental negotiations, they outnumber developed countries in terms of voting power. Therefore the key to resolving this disparity in participation is to foster effective cooperation among developing countries. Such cooperation will only occur when policymakers in developing countries:

- (i) Equip themselves with the necessary knowledge and skills to enable effective and meaningful participation in multilateral environmental negotiations
- (ii) Enhance their capacity to offer a pre-assessment of conceivable policy options rather than to accept policy options from developed countries
- (iii) Produce timely and advanced research on strategic areas of multilateral environmental negotiations and proactively disseminate the results to relevant policy actors involved in these negotiations.
- (iv) Conduct research on the emerging paradigm of environmental





governance, both at regional and global levels, in an effort to make it more effective as a problem-solving process.

(v) Bridge communication barriers and resolve role conflicts between science and policy actors. Effective international policy coordination on the part of diplomats and policy makers requires that they learn to understand and utilize specialized scientific knowledge and know-how in order to make more effective decisions.

In order to realize the above objectives, it is essential that developing countries embark on a sustained cooperative initiative that may include the following:

(i) Environmental Negotiation Related Strategic Policy Research

These studies should emphasize the generation and synthesis of information in an attempt to bridge the gap that exists between academic and scientific research and the use of this research by negotiators in multilateral environmental negotiations.

They should also explore negotiation issues from a regional perspective; clarify and deepen understanding of newly introduced concepts; the possible implications of newly introduced commitments; and an assessment of possible policy options. These studies should be undertaken by developing country experts and research institutions to ensure that the perspective of developing countries will be represented.

(ii) Simulated Negotiation Exercise

Before each negotiation concerning the environment, developing country negotiators should meet and conduct simulated negotiation exercises to prepare themselves for the actual meeting. These simulated role-playing exercises could serve as powerful and effective learning tools for developing the negotiation skills of a host of practitioners, including diplomats. These exercises promote subjective understanding of the negotiation exercises, enhance effective use of factual and analytical information, and improve negotiation techniques such as strategies, tactics, and problem-solving methods.

(iii) Capacity building workshops and seminars

Developing country diplomats, environmental planners and scientists should meet regularly to enable interaction, dissemination of information, exchange ideas and arrive at negotiating positions before each environmental negotiation. This will ensure that developing countries put forward a common stand at environmental negotiations and are not easily influenced by the developed countries.

(iv) Electronic Database/Network

With the widespread use of the Internet, developing countries should



## Related Websites

Climate Change Issues:  
<http://www.unfccc.de/>

Biological Diversity Issues:  
<http://www.biodiv.org/>

Ozone depleting substances issues:  
<http://www.unep.org/unep/secretar/ozon/montreal.htm>

Trade-Environment Issues:  
<http://wto.org/wto/environ/environm.htm>

establish an electronic network/database in order to ensure continuing and on-line support for negotiators. An electronic network will facilitate information sharing, consultation with peers, discussion groups, virtual education/capacity building, and generally facilitate implementation of all activities under this initiative. The electronic database will function as a one-stop center bringing together all related information on contemporary environmental negotiations, and provide links and easier access to other related databases.

### Conclusion

Once purely of social concern, environmental issues have now entered the economic and international trade arena. With the increasing preference for good environmental compliance, it is undeniable that environmental issues will emerge as a key marketing tool for international trade and therefore directly affect the international competitiveness and economic health of nations. As we enter the next millennium, environmental issues will therefore dictate the new social and economic order of nations. It is essential that developing countries recognize its importance and ensure their concerns are incorporated at a very early stage--during the on-going process of global environmental negotiations.



## Further Reading

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# Accepting the Role of NGOs

## Examples from the Environmental and Developmental Community

KUROSAKA Miwako

### Introduction

In the past few years, we have witnessed some hopeful yet uncertain changes taking place in Japanese society. On May 7 of this year, the "Freedom-of-Information Bill" finally passed the Diet. Additionally, the "Law to Promote Specified Nonprofit Activities" took effect last December. Japanese non-governmental organizations (NGOs) and civil groups that worked together with overseas NGOs at the 1997 United Nations Framework Convention on Climate Change in Kyoto have had a strong impact in Japan. Today major newspapers and television stations carry almost daily reports on global environmental problems and on the activities of civil groups and non-profit organizations (NPOs) and NGOs. They often portray NPO/NGOs as playing an important role in making major breakthroughs in what is perceived as a depressed Japanese society. Yet even with these gains, will the essential mission of NPO/NGOs be fully realized in Japan?

### The 1989 Tokyo Conference

It was not until 1990 that the word "NGO" began to be used in Japan.<sup>1</sup> It coincides almost exactly with the time when Japanese gained awareness of the global environmental threat. Actually, it was at the 1989 G7 Summit that global environmental issues were, for the first time, listed on the major international agenda along with economic and security issues.

In September 1989, the "Tokyo Conference on the Global Environment and Human Response toward Sustainable Development" hosted by the Japanese government and the United Nations Environment Program (UNEP) took place in Tokyo. Starting with this conference, the idea of viewing environmental issues not only from a problem of local pollution but from a global environmental and a developmental perspective gained momentum in Japan. At the time, expanded Japanese economic activities were destroying large areas of tropical forest in Asia, and articles in *Time* and *Newsweek* were harshly criticizing the Japanese government and various industry for failing to recognize the problems and taking any action.

Since there were very few experts on global environmental and developmental issues in Japan at that time, the World Resources Institute (WRI), a Washington-based independent policy research center, provided background materials for the conference. J. Gustave SPETH, one of the keynote speakers, is a co-founder of WRI and was at that time serving as its president. While the Japanese government obtained assistance from U.S. and European NGOs, it refused to accept participation of Japanese and Asian NGOs in the conference. Being Japanese and a member of the WRI staff, I decided to side with Japanese and Asian NGOs and chose not to enter the conference hall. ↪



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## Notes

<sup>1</sup> YAMAMOTO Tadashi, ed. *Emerging Civil Society in the Asia Pacific Community: Nongovernmental Underpinnings of the Emerging Asia Pacific Regional Community: a 25th anniversary project of JCIE* (Tokyo: Japan Center for International Exchange (JCIE), 1995).

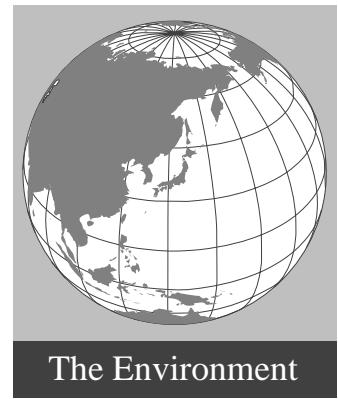
Since then, I have had opportunities to directly or indirectly experience the process whereby the Japanese government, industry and academia have increased their understanding of sustainable development issues and implemented various measures. I have been able to see how Japanese society adopts new concepts from overseas, understands them, incorporates them in the form that is most suitable to the Japanese way of thinking, and finally implements concrete efforts in limited ways. I have been impressed by how quickly Japanese researchers, scholars, corporations and the media have responded to this new issue in a short time and become experts in the fields of the ozone layer, global warming, the destruction of tropical forest and losses of bio-diversity. After the 1992 United Nations Conference on Environment and Development in Rio de Janeiro (the Earth Summit), the Japanese Ministries of International Trade and Industry (MITI) and Construction have stressed their intention to incorporate the concept of sustainable development into their policies. MITI, however, has supported increases in the number of nuclear power plants, and the Construction Ministry did not abandon the outdated construction plans for Isahaya Bay, the Nagara River and other many rivers and coastal zones. This spring, after a thirty-year battle, victims of air pollution in the city of Kawasaki won their legal battle with Japanese government, although some of the victims had already died and will not be able to receive compensation.

### **Three objectives of NOP/NGO development**

In my work, I have kept in mind the following three objectives for NPO/NGOs. 1) recognition in society; 2) participation in the policy making process; and 3) greater policy research capacity. After consultation of key people of various sectors, I decided that all three objectives are equally important. Of course, particular objectives come into focus at different times, and key persons and supporters can vary over time.

The first objective is for the non-profit sector to gain recognition in Japanese society and to have better access to institutional and financial support. Already in 1989, the NGO movement had begun to take shape. On the eve of the 1989 Tokyo Conference, for example, an international conference was held by Japanese and other Asian NGOs to counter the government-sponsored conference. Shortly after the conference, a symposium sponsored by the Asahi Shimbun emphasized the role of NGOs. A young Foreign Ministry administrator who had pushed me out of the 1989 conference hall later asked me to conduct a survey on NGOs in the U.S. and Europe. Impressed by the influence they had exerted at the time of the Tokyo Conference, he was convinced that NGOs would play an increasingly important role in the future and should not be underestimated. This official was also interested in a project that 29 NGOs from G7 countries were carrying out in preparation for the 1990 G7 Summit in the U.S. The NGOs





were evaluating each country's efforts concerning global environmental issues. At that time, Japan was ranked sixth among the G7 countries, with West Germany ranked the highest and Italy last. Moreover in June 1990, WRI president Speth, who was invited to an international seminar held to commemorate the 10th anniversary of a policy study group in which the then Prime Minister KAIFU Toshiki was a member, emphasized the important role of NGO's in his keynote speech. At that time, he also directly urged Kaifu to recognize and support NGO activities in Japan. However, members of the government, as well as of business community, did not fully understand the role of NGOs and regarded them as merely noisy, troublesome groups.

In October 1990, I visited twenty-two NGOs in the U.S., Canada, the U.K. and Belgium, studying their activities as part of a survey organized by the Foreign Ministry of Japan. The results were compiled in March 1991. In addition to the introduction of nearly 300 NGOs, the report provided extensive information on the Climate Action Network (CAN), the first international network of forty-seven U.S. and European NGOs working on climate change issues. For each NGO, the report listed items such as the names of representatives, the focus of the NGO, the date of its establishment, the size of its staff along with its membership, dues, and budget. These pieces of information were arranged in a table for easy reference. Another table showed twenty-seven major NGOs including American NGOs that focus on nature conservation issues. The mission of the NGOs was listed along with campaign and lobbying activities, information about land purchases for nature conservation, legal measures pursued by the NGO, and aspects of policy research. In addition to these lists and tables, the paper also included results of the evaluation of G7 countries carried out by NGOs for the 1990 G7 Summit and summaries of newspaper articles from over 20 U.S. newspapers on summit and environmental evaluation.

This was the first Japanese report that presented an overall picture of the activities of U.S. and European NGOs. It was distributed to Japanese embassies and the press club at the Foreign Ministry. The facts contained in this report had an impact not only on the government officials but also on Japanese NGOs. In particular, the report revealed that worldwide, several million members support NGOs and that some NGOs have budgets of over 100 million U.S. dollars. Moreover the report showed that environmental issues have appeared on the international agenda as a result of the continuous efforts of numerous NGOs and grass-roots groups rather than due to government led efforts. One can imagine the impact that these findings had on key government administrators, business leaders and even



Japanese NGOs because the largest Japanese NGO at that time had only 50,000 members (a number that has still not changed.)

The 1992 Earth Summit in Rio de Janeiro demonstrated the veracity of the report. After the summit, people from various fields realized the importance of NGO activities and became involved in a number of ways.

### **Increasing Participation in the Policy Making Process**

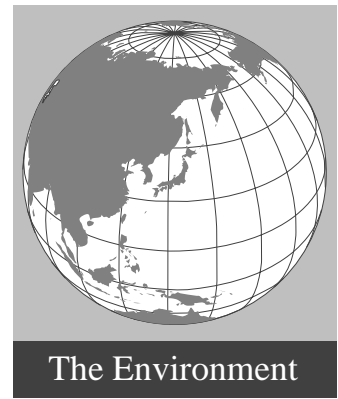
It is well known that Japan has historically had strong bureaucratic institutions and its policy and decision-making process is led by bureaucrats in cooperation with councils composed largely of representatives of industry. Members of the council are chosen from industry, academia, the media and civil groups on the basis of how favorable these individuals are from the government's standpoint. Representatives from civil groups are greatly outnumbered by those from industry. In the past few years, there has been growing pressure for the politicians to take greater roles in the legislative process, but it appears that little will change before the 21st century. Much more time is needed for Japanese society to reach this goal.

However, one small step has been taken: the establishment of the Japan Council for Sustainable Development (JCSJ) in June 1996. The Council is comprised of deputy director-general level officials from ten ministries and agencies, nine senior executives from private corporations, ten representatives from NGOs, and four from local governments. This experimental effort is unique in that it has facilitated for the first time policy dialogue on equal terms. This dialogue should help facilitate a shift toward a Japanese society that is more focused on protecting and sustaining the environment.

At present close to 150 countries worldwide have similar councils. I played a catalytic role in the establishment of the JCSJ process and now work as Board Secretary for the Council. Under the direct or indirect influence of this mechanism, government officials and NGOs have come to have a less fractious relationship and are starting to engage in regular policy dialogue. Indeed NGOs that oppose the construction of nuclear power plants are invited to speak at councils that discuss energy and nuclear power policies.

### **Cultivating a Policy Research Capacity**

Japan's strength lies in its capacity to further develop ideas or issues introduced by other countries. However, Japan is less capable of producing new ideas, from both human resources and social mechanism standpoints. Since the Japanese educational system and social institutions do not encourage these capacities, they are almost non-existent. There are exceptions, however. SUZUKI Takahiro, a man who believes that think



tanks can play a key role in the betterment of the society, has steadily worked toward the recognition of the role of think tanks, and their wider establishment. During the last decade, there has been better understanding of the needs for policy research and independent think tanks and the establishment of policy departments at universities. Working with Professor TAKENAKA Heizo of Keio University, Mr. Suzuki has begun to develop independent policy research projects in the field of economics. The two are also working to create a policy analysis network bringing together researchers at universities and Japanese-style corporate think tanks.

However, this is an exceptional case. Government regulations still make it very difficult to create and promote independent policy research institutions. However, concerned individuals have made small but effective efforts surrounding environmental and developmental issues. This is an exciting frontier for young Japanese with intellect and compassion.

### **Challenges for the Future**

The law to "Promote Specified Nonprofit Activities" does not include a tax deduction provision for the donations made to NGOs. This means that even though the law has taken effect, NGOs and civil groups striving to work toward the three objectives outlined above will continue to be financially weak. As a result, these organizations have little or no chance of improving the quality of their activities and becoming more influential.

There is still another concern. Some Japanese firms have suggested that NGOs could receive persons who have lost their jobs due to restructuring. This suggestion clearly indicates how little people in industry and legislators understand the essential mission of NPOs.

Ralph DAHRENDORF, a German who was educated in Germany, the U.K. and the U.S., and who achieved a great deal in politics, academia and in work with NPOs, uses the expression "creative chaos" to describe the essential quality of non-profit activities. In this, he means that NPO activities aim to create a society where each individual is free to help others in his or her own way without being obstructed by anyone, whether or not supported by other people. The government sector, on the other hand, aims at "order and control", and the private sector works toward "profit." The aims of both sectors contrast sharply with the goal of NPO activities. With this in mind, it will continue to be a great challenge for Japanese society to build and strengthen its imaginative and creative capacity in coming decades.



## *20 Seiki Shisutemu 5: Kokka no Tayôsei to Shijô* [The 20th Century Global System 5: National Diversity and the Global Market: The System and its Discontents]

HIRASHIMA Kenji

### A Summary



Our research program, "The 20th Century System," is based on the following premises. Competing to establish a stable international order to their own design, the United States and Russia divided the world into two opposing camps after World War Two. While the power of the socialist countries gradually eroded, the United States led other capitalist countries to political and economic stability. However, having enjoyed an unprecedented golden age under American hegemony, Western countries, including Japan, are now facing serious challenges in the aftermath of the demise of the bipolar system.

How can Japan reform her traditional "developmental state," while simultaneously coping with a declining economy? How do European countries, which have succeeded in introducing a common currency (the Euro), combat the problem of long-term unemployment? Many nations have realized that the once viable combination of a welfare state and the international free movement of capital is increasingly hard to maintain. (John Ruggie succinctly coined the word "embedded liberalism" to describe this postwar American construction.) Yet is the Anglo-American model really the only choice? Is there a logical connection between economic globalization and the viability of the Anglo-American model? We place our examination of changes in the concept of the "state" after the 20th Century System in this context of a contentious globalization.

To answer these questions, the essays in this volume take a historical and comparative approach. First, a case of a Japanese local community is described to show that despite the immediate success of land reform under the American occupation, the historical trajectory of land reform followed was dependent on the longer-term path of democracy in Japan at large. A comparative analysis of antitrust policies in postwar Japan and West Germany further demonstrates the limits involved in transplanting American models. Whilst Japanese antitrust policy was largely adapted to her activist industrial policy, West Germany allowed oligopolies to develop a "social market economy" under the rubric of a national "competition policy."

We then focus on variations of recent changes in domestic spheres under the impact of globalization. Although managers are eager to modify their production strategies to match globalizing markets, industrial relations are resilient to changes to the extent that they are socially embedded in national contexts of labor organizations or legal norms. In turn, state-society relations under the 20th Century System will not remain unchanged in the future. In this sense, European integration might be interpreted as a collective endeavor by nation-states to reformulate embedded liberalism in the emerging configurations of the multi-tiered system in Europe. Given the

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European tradition, it is hardly conceivable that the social dimension would be neglected in the establishment of the internal market or the introduction of the common currency. This holds all the more true for the former socialist countries in Eastern Europe, which have undergone the transition to a political democracy and a capitalist economy precisely in the age of globalization.

By trying to detach the Anglo-American ideological premises from the ongoing debates on the relationship between state and globalization, this collection of essays aims to contribute to discussions about how to reinvigorate state-civil society relations in the coming millennium. □

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### Television News and Politics in Postwar Japan

**Ellis KRAUSS**

*Professor, Graduate School of International Relations and Pacific Studies  
University of California, San Diego  
May 24, 1999*

**Professor Krauss** suggested that in evaluating the causes of both stability in Japanese politics after the 1960s, as well as the more recent trends toward cynicism, scholars have tended to ignore one major source of both—television news. NHK news, whose content concerning politics and public affairs is different than the news of any other industrialized, democratic country, contributed to the legitimacy of a particular kind of democratic state in Japan. More recently, KUME Hiroshi's News Station (TV Asahi) has been helping to breed cynicism toward that state and creating a new form of populist conservatism. He explored the factors producing both these unique kinds of television news.



### Gassed Subways, Poisoned Curry, and Soured Loans: Effects of the Protests of the Late 1960s on Contemporary Japanese Criminal Justice

**Patricia G. STEINHOFF**

*Professor of Sociology, Dept. of Sociology  
University of Hawaii  
Fulbright Senior Research Fellow and  
Visiting Research Fellow, Institute of Social Science,  
University of Tokyo  
June 23, 1999*

**Professor Steinhoff** discussed the long-term effects of the 1960s protest wave on the criminal justice system in contemporary Japan. She argued that these effects were the product of an extended conflict interaction between the New Left movement and its supporters and the Japanese state as embodied in agencies of the criminal justice system. Through this process, a set of practices has become institutionalized in the criminal justice system that can be readily invoked whenever an activity, group, or individual is defined as an actual or potential security threat to the state, a definition often reached through circular logic.

## Japan and Open Regionalism

### Peter DRYSDALE

**Asia-Pacific Economic Cooperation (APEC)** adopted the principle of open regionalism formally in its Seoul Declaration in 1991. But the concept was central to APEC from its inception in 1989. It had its roots in the deep concern in East Asian and Western Pacific economies about the fate of the global, multilateral trade regime and the slow progress of multilateral trade negotiations in the Uruguay Round through the 1980s. Japan understood its stake in the strength and continuity of an open trading system. Hence, open regionalism incorporates commitments to outward-looking trade and development policies, trade and investment liberalisation and General Agreement on Tariffs and Trade (GATT) consistency.

The idea of keeping regionalism open in East Asia and the Pacific crystallised into policy commitments in the late 1980s, but it had its origins in much earlier dialogue that laid the intellectual foundations for the development of APEC. It was an approach dictated by the practical necessities of community-building in a region of great economic, cultural, political and ethnic diversity, not merely a response to developments in the international economic policy environment. Regional community-building in East Asia and the Pacific, it was argued (DRYSDALE, 1988), had to be guided by three important principles: openness, equality and evolution.

*Openness* required non-discrimination and transparency in trade and economic policy, as well as in diplomatic stance in the last years of the Cold War.

*Equality* implied that activities needed to be of mutual benefit to all participants and recognised the rapid transformation in the structure of economic and political power taking place in the region.

*Evolution* of the process of regional cooperation recognised the importance to success of a gradual, step-by-step approach to economic cooperation based on consensus building and voluntary participation (DRYSDALE, Ch 10, 1988, PECC, 1995).

The logic of open regionalism as the organising idea for Asia Pacific economic cooperation is embedded in the experience of East Asia's integration into world markets. The proportion of East Asian trade going to and coming from partners outside the region is much higher than for either North America or Europe. The region is large, and both culturally and geographically as well as commercially, diverse. The region is driven by its powerful development ambition, and development, it is widely understood, requires commitment to opening up and liberalisation of economic activities in a global marketplace.



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## Japan and Open Regionalism *continued*

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Such open regionalism has a fundamental economic rationale: concerted unilateral Most Favored Nation (MFN) liberalisation does not cause trade diversion; countries in the region continue to trade both with the rest of the world and with other countries in the region on a level playing field.

Such open regionalism also has a political rationale. Put mildly, any negotiations to form a preferential trade bloc in such a diverse region, whether a customs union or free trade area, would be enormously politically diverse. To begin with there would be difficulty in deciding who the participants should be. Could even China, a leading APEC player, be easily included from the beginning? China is still not a member of the World Trade Organization (WTO). Should, for example, Vietnam or India be participants or would they be discriminated against? Then there would be continuing pressure from those outside the arrangement to obtain special access to the markets within it--after the style that emerged around the periphery of Europe. And what reaction will there be to limited unions, such as that now proposed between Japan and Korea or within Northeast Asia, excluding China? Will there be a chain reaction driving Australia and New Zealand into a discriminatory arrangement with NAFTA? How will it affect economic and political relations with China? Only open associations--open clubs--can insure against damaging economic and political repercussion effects from sub-regional unions in East Asia and the Pacific.

In brief, there are three reasons why the Asia Pacific region has eschewed discrimination in its approach to regional cooperation, adopts a strategy of open regionalism and provides collateral strength to the WTO. First, there is the sheer impracticality of undertaking regional trade liberalisation via a conventional discriminatory free trade area of the kind sanctioned by the WTO. Hence, APEC opted for an alternative, new approach--setting targets for trade and investment liberalisation, rather than negotiating "free and open trade and investment in the region." Second, the trading and economic interests of East Asian and Pacific economies extend beyond APEC, including to Europe. A conventional free trade area strategy towards liberalisation would also deter internationally oriented reform in the region's neighbouring developing and transitional economies, thereby introducing tension into relations with neighbours as well as with major partners outside the region. Third, trade discrimination involves the unnecessary cost of trade diversion, complicated in the Asia Pacific region by the likelihood of high associated political costs both within and outside the region (GARNAUT and DRYSDALE, Ch 5, 1994).

### **Challenges for the future**

In the past two years, East Asia has been an economy in apparent disarray. One perception is that APEC has been a mere bystander as the drama of the

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East Asian economic crisis unfolded. The first question to ask is how relevant is APEC's core agenda to Japan's interests in the recovery from the East Asian crisis and the management of its foreign economic relations in the region into the twenty first century?

The short answer to this question is that APEC's trade and investment liberalisation agenda is central to smooth recovery from the crisis--the core principles of APEC are a significant source of strength in responding to the crisis in the East Asian economy--and central to the management of Japan's economic interests in the region over the coming decades. There was no such framework of commitments either regionally or globally when the Great Depression hit the United States and other industrial economies in the 1930s.

In the 1990s, APEC--and its commitment to liberalisation within the multilateral trading system--stands as an important bulwark against gathering intensification of the implosion of regional trade and economic activity and underwrites the prospect for economic recovery reinforced by strong growth of net exports from the region to world markets (DRYSDALE, 1999).

Yet the most noticeable result of the 1998 Kuala Lumpur APEC Summit Meetings on the trade policy front was Japan's failure to deliver on Early Voluntary Sectoral Liberalisation of trade in the nine chosen sectors, a damaging if not fatal signal on APEC trade policy resolve to the international community. It is possible to understand why Japan fumbled these central interests in APEC, with political weakness at home, but the bottomline is that Japan's and APEC's trade leadership credentials have been comprised. This raises the question of whether the diffuse and non-binding character of the APEC process is adequate to deliver on its trade and investment liberalisation targets. Peer pressure and rolling leadership are powerful instruments for sustaining momentum, but are they enough (DRYSDALE and VINES, chaps. 1 and 5, 1997)? Will it be possible to achieve deep liberalisation of agricultural trade in Northeast Asia, for example, without the pressure of hard negotiations and reciprocated exchange of concessions? The answer to these questions is almost certainly "no." Which leads inexorably to focus on APEC's role in developing the WTO agenda. But not inevitably. Could a Japan-Korea association or a Northeast Asian FTA block progress on this front and "white ant core" trans-Pacific trade policy interests? Can 'open clubs' be developed within APEC, dealing with service trade and investment interests, which forestall this outcome? These are issues for resolution (DRYSDALE, ELEK, and SOESASTRO, 1998; ELEK, 1999).



The damage to regional economies from the East Asian crisis has been more drastic than anyone anticipated as it broke in 1997. APEC encompasses no effective arrangements for monetary or financial cooperation or consultation. The embryonic nature of regional financial and monetary cooperation limited the scope for decisive influence on the substance of macro policy strategies associated with the International Monetary Fund (IMF) rescues, beyond the initial (and significant) commitments to supplementary financing by Japan, Australia and a group of Western Pacific countries. The Manila Framework Group, initiated under the aegis of APEC, now provides the beginnings of an appropriate framework for regional financial cooperation. But there are many unsettled questions. Is discussion of an Asian Monetary Fund (AMF) likely to divide the region and to undermine support for global arrangements in financial and monetary cooperation or can it be made consistent with global commitments? The answer to this question is not yet clear. In addition, Japan's own financial fragility and incomplete structural reform render it ineffectual in assisting financial market reconstruction in the rest of East Asia in the years immediately ahead and the outcome of its domestic and foreign economic policy choices are less predictable than they have been for many years.

Commercial and development pressures are such that markets find ways around regulatory barriers exposing unsound domestic financial systems to sophisticated, and high risk taking, international systems. Getting the sequencing of capital market liberalisation and reform of domestic financial systems right in such a way as not to compromise development objectives or economic stability is an increasingly high priority. But it is not clear that these lessons of the East Asian financial crisis have been learned correctly. Will confusion over regulation of capital markets sabotage APEC's foreign economic policy coherence?

### **Conclusion**

The 1980s and early 1990s were a period of unprecedented growth in East Asia and saw the emergence of regional institutional structures designed to secure East Asia's development in a political arrangement encompassing the shared economic objectives and priorities of the plurality of societies within the Asia Pacific region. The evolution of the APEC process, more particularly, represented a considerable achievement in Japan's economic and broader international diplomacy to support these ends over this time.

Through APEC, Japan helped to define a strategy for trade and economic diplomacy--liberalisation and reform organised around the principles of open regionalism--peculiarly suited to the development objectives and diversity of the Asia Pacific region. It has provided the framework for the



accommodation of the three Chinese economies into mutually productive regional economic relationships. It has progressed from official and ministerial level institutions to regular meetings of Asia Pacific leaders in a forum in which tensions can be diffused and calmed--that is the important lesson of Seattle, Osaka, Manila and even Malaysian Prime Minister Mahathir Mohamad and U.S. Vice-President Al GORE in Kuala Lumpur--and political energies mobilised to deal with priority issues in each of its member states. It influenced the outcome of the Uruguay Round of trade negotiations and has emerged as a major coalition within the WTO. At the same time, it has established a new mode in international trade liberalisation through the commitment to free trade and investment by 2010 and 2020 at Bogor and moved on, through the Osaka Action Agenda and its implementation at Manila, to carry reform forward independently of formal international negotiations. It is well placed to give strength to the WTO and other global institutions through catalysing negotiations on 'hard issues' such as agricultural trade, standards setting, services and capital market supervision. Despite the economic crisis in East Asia, currency turmoil and macroeconomic instability over the past two years, there is so far no sign of retreat on APEC's core agenda for trade and other economic reforms.

Japan's position in fact seems rather more problematic and the questions that surround Japan's choices in Asia Pacific economic diplomacy and its commitment to its own conception of open regionalism over the coming years are a rich field for future research.



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