



THE JAMES A. BAKER III
INSTITUTE FOR PUBLIC POLICY
OF
RICE UNIVERSITY

JAPANESE ENERGY SECURITY AND CHANGING GLOBAL ENERGY MARKETS:
*AN ANALYSIS OF NORTHEAST ASIAN ENERGY COOPERATION AND JAPAN'S EVOLVING
LEADERSHIP ROLE IN THE REGION*

JAPANESE NUCLEAR ENERGY POLICY AND PUBLIC OPINION

MINDY L. KOTLER AND IAN T. HILLMAN
JAPAN INFORMATION ACCESS PROJECT

PREPARED IN CONJUNCTION WITH AN ENERGY STUDY SPONSORED BY
THE CENTER FOR INTERNATIONAL POLITICAL ECONOMY
AND
THE JAMES A. BAKER III INSTITUTE FOR PUBLIC POLICY
RICE UNIVERSITY – MAY 2000

Introduction

Public opinion in Japan is playing an increasingly meaningful role. Over the 1990s, waning confidence of the Japanese people in their government has translated into a significant increase in civic participation in the political process. Some of this new involvement comes in the form of grassroots organizations influencing local governments to challenge edicts from the central government. The emerging activism is part of a gradual political and social restructuring of Japan. This paper examines these political and social trends through the prism of the debate over Japan's nuclear energy policy. The debate over nuclear power represents one of the first test cases of new institutional frameworks for political expression in Japan and for the evolving relationship between local and central government.

Traditionally, public opinion has not played as major a role in policy formation in Japan as in other democratic societies. The Japanese people generally refrained from challenging authority. Instead, the public expected Japan's central government, in particular its bureaucrats, to protect and advance the public interest as a matter of course. The government maintains "a virtual monopoly on decision-making authority and jurisdiction over defining the public interest. Since the establishment of a modern government during the 19th century Meiji Restoration, the "public" good has equaled the "official" good or the national interest. Officials were to be looked up to and governed with the attitude of *kanson mimpi* ("officials honored, the people despised").

Bureaucrats held decision-making authority but accountability for their decisions was not rigorous and transparent. Regulations were issued through the use of ambiguous, unwritten administrative guidance that allowed them to retain regulatory discretion and authority without the use of a formal system of rules. The experience of Tokyo's authorities was that reason or compensation could ultimately sway the public to "understand" the government's position. Professionalism and expertise overrode the need for transparency, citizen discussion, and local concerns.

In the 1990s, a series of increasingly serious nuclear accidents called into question the knowledge, experience, and wisdom of government nuclear experts and regulators. Investigative groups, research reports, and administrative changes, all standard government responses to ease public fears, did not resolve the problem. Sadly, each accident was worse than the previous, and the same safety issues were replayed. The result is through organized protest, referenda, and

opinion surveys the Japanese people have expressed strong doubts about any justification for nuclear energy.

The essential question is: **Will Japan's increasingly independent public opinion become strong enough to evoke a reverse course on a nuclear energy policy that is viewed by officials as vital to Japan's national security?** *This may now be possible.* Growing public concern toward today's nuclear policy has already influenced Tokyo's energy plans. With new civic tools at their disposal, it is a matter of time before the Japanese people seriously question the reasons for supporting a massive nuclear power program.

The Nuclear Energy Setting

Nuclear accidents, official misdeeds, and political missteps during the 1990s have activated public opinion to question the wisdom of Japan's nuclear policy. Although the Japanese people are not ready to abandon nuclear power, they are also not willing to accept all the arguments in its favor. The Japanese government is being forced as never before to justify its policies. Already in several instances, it has been forced to back down from proposed nuclear sites and plans.

Until recently, Japan's leaders intended to push ahead with its plans to increase the amount of electricity derived from nuclear power and to continue development of a complete nuclear fuel cycle. Officials have emphasized that nuclear power is indispensable to Japan's security and welfare for the 21st century. Even after the September 1999 Tokaimura criticality accident, senior officials continued to promote the current energy policy and the necessity to "gain public understanding" of the nation's energy situation.¹

Thus, the March 10, 2000 announcement by MITI that it will reconsider the construction of new nuclear power plants and reactivate an energy policy study panel, the Advisory Committee for Energy, was a surprise. Dormant for ten years, this 30-member subcommittee that includes three anti-nuclear activists is to take a year to prepare a comprehensive review of Japanese energy policy and submit recommendations for a *new* energy policy. Only last year, the Atomic Energy Commission of Japan (AEC) began the revision of the Long-Term Program

¹ "MITI Chief Fukaya on Reducing Nuclear Plant Construction." *Nihon Keizai Shimbun in Japanese*, 31 March 2000, p. 2. [Translation by Foreign Board Information Service, Washington, D.C.]. and "MITI Official Defends Japan's Nuclear Power Policy." *Jiji Press in English*, 01 January 2000. [Transcript by Foreign Board Information Service, Washington, D.C.].

for Development and Utilization of Nuclear Energy. News reports list ten reasons for this study of which only the fifth (weakened public trust) and ninth (greater public awareness of environmental issues) mention the public.² The first reason given was the decline in energy consumption due to the prolonged economic slump.

Expectations are high for a radical change in policy. However, it remains to be seen if this review is simply pandering to a perceived temporary public interest or an actual commitment to new thinking. Newspaper reports have expressed concerns that the Committee is not independent and will be shortsighted.³ The opening comments of Committee Chairman Yoichi Kaya were not encouraging as he noted that his panel would present “a package of bold but practical recommendations...to help the government win public support for its energy policy.”⁴

Pre-1990 Attitudes Concerning Nuclear Energy

Prior to the 1990s, public opposition to the use of nuclear power did exist. It was localized, usually temporary, and often led by left-wing groups or local trade associations. The focus of this opposition was usually health-related and limited to citizens living near a particular nuclear facility. Generally speaking, this anti-nuclear opposition was not necessarily environmentalist in its orientation. Local protests often gained immediate attention but rarely had any long-term effect on the Japanese government’s nuclear power policies.⁵

One of the most prominent of these protests, yet almost forgotten, was the internationally embarrassing 1974 Mutsu nuclear ship mishap. The launch of the Mutsu, Japan’s first nuclear powered cargo vessel, was marred by a leaking, faulty reactor, by angry protests from the local fishing cooperatives, and by unbending officials. Concerns about the dangers posed by the ship to the community and the fishing industry, along with the failure of nuclear authorities to address the mayor’s personal inquiries, contributed to bitter and picturesque protests with a flotilla of fishing vessels blockading the Mutsu port. After setting sail in a typhoon, the ship drifted at sea for 50 days before a compromise was reached to allow it to return to a port. Although this

² “MITI to Review Energy Policy.” *Kagaku Kogyo Nippo in Japanese*, 13 March 2000, p. 11. [Translation by Foreign Broadcast Information Service, Washington, DC].

³ “Wanted: New Energy Policy Less Bound by Nuclear Power,” Editorial. *Asahi News*, 7 April 2000. <http://www.asahi.com/english/asahi/0407/asahi040713.html>, accessed 4/7/00.

⁴ “Japanese Panel to Review Nuclear-Oriented Energy Policy.” *Kyodo in English*, 24 April 2000. [Transcript by Foreign Broadcast Information Service, Washington, DC].

⁵ See Jeffrey Broadbent, “*Japan’s Changing Environmental Regime: Treadmill or Modernization?*” 23 March 2000. (Unpublished, Collection of Author).

incident exposed future political and administrative flaws regarding nuclear energy use and opened Japan's nuclear program to foreign criticism, no adjustments to official attitudes or safety procedures were made.⁶

Central authorities, in the end, overruled local opposition. Public officials were unrelenting in defending their knowledge of what was best for the nation. In addition, opinion polls throughout the 1980s and 1990s showed that: 1) a majority of Japanese found Japan's nuclear power plants "safe" or "somewhat safe" and 2) a large majority of those who supported development of nuclear power believed that nuclear power was the key energy independence.⁷ These views allowed officials to discount protests as short-term, selfish economic anxiety. They effectively used financial rewards and compensation to dampen discontent. Little attention was given to the legitimacy of public concerns on safety.⁸

Changing Attitudes in the 1990s

While the decades before the 1990s experienced occasional mishaps and sporadic unease in the countryside, attitudes changed dramatically over the 1990s. Over 35 reactors became operational between 1960 and 1990 (1 in the 1960s, 20 in the 1970s, and 16 in the 1980s). By the end of the 1990s, Japan had 51 operational reactors. The greater number of reactors, together with an emphasis on completing the nuclear fuel cycle, increased the potential for serious accidents. Indeed, by the 1990s, several accidents at Japan's public and private nuclear facilities posed serious threats that could have been potentially damaging to the entire nation. International criticism of management of Japan's nuclear program became pronounced. Although government promises were made after each incident to ensure public safety and expand information access, the very same issues reemerged as factors in new accidents.

At the beginning of the 1990s, nuclear power provided only 9 percent of Japan's energy needs but by the end of the decade it was 32 percent. According to the Ministry of International Trade and Industry's (MITI) Agency for Natural Resources and Energy (ANRE) statistics, both

⁶ See, Dane Lee Miller, "Drifting Ship, Drifting Government," *Japan Interpreter* 12:2, Spring 1978, 201-222.

⁷ In a 1991 Jiji Press poll released in March of 1993, 83% of those who believe nuclear power should be developed believe so because it is an important source of energy that can replace oil and coal. Jiji Press (through Central Research Services, Inc.). 30 March 1993. Poll taken 1 May 1991. (Roper Center for Public Opinion Research)

⁸ See Jeffrey Broadbent, 1998. *Environmental Politics in Japan: Networks of Power and Protest*. United Kingdom: Cambridge University Press; S. Hayden Lesbirel, 1998. *NIMBY Politics in Japan: Energy Siting and the Management of Environmental Conflict*. Ithaca, N.Y.: Cornell University; and Margaret A. McKean, 1981. *Environmental Protest and Citizen Politics in Japan*. Berkeley: University of California Press.

before and after the 1990s, nuclear incidents averaged about one per reactor. A recent ANRE report, “Problems that Occurred at Nuclear Power Plants in 1999” found that there were 29 “problems” in FY1999, 17 of which were required by law to be reported and an additional 12 that were voluntarily reported. The annual report recalls that in the recent past there had been as many as 50 “problems” per year. The report does not, however, cover “trouble” at nuclear facilities other than power plants so that accidents at nuclear research facilities such as Tokaimura are even not counted in these statistics.⁹

A Survey of Serious Recent Nuclear Accidents in Japan

Several severe nuclear reactor mishaps occurred during the 1990s. In 1991, at the Kansai Electric Power Company’s Mihama nuclear power plant in Fukui Prefecture, there was the first ever use of an emergency cooling system causing Japan’s first ever level 2 nuclear accident. By comparison, on the international nuclear incident scale of 7, Chernobyl was a level 7. In 1995, the government-run experimental breeder reactor at Monju malfunctioned causing a fire and Japan’s most serious sodium leak that had the potential of causing explosions and extensive radiation damage.

In 1997, a government-run nuclear-fuel reprocessing plant in Tokaimura suffered a fire and explosion. Radiation leaked into the atmosphere and rated a level 3 on the nuclear incident scale.

In 1999, a nuclear research facility in Tokaimura experienced a criticality accident that rated a level 4 on the international scale. Radiation leaked into the atmosphere and has thus far has killed two workers.

Each accident has become increasingly dangerous, and each has garnered significant international attention.¹⁰ After each incident, the government formed committees, asked for public comments, and pushed administrative changes. Each investigation always found ineptitude, cover-ups, false statements, inadequate training, inadequate regulatory oversight, and a lack of an appropriate safety culture. It is interesting that the U.S. Nuclear Regulatory

⁹ Reported in *Kyodo News*, but also available on the Agency for Natural Resource and Energy’s website in English and Japanese. <http://www.enecho.go.jp> Note: It is difficult to locate in both versions on the Internet and neither has a written report. For English, select the ATOM-NET link. For Japanese, select *Toraburu no Jyôhō under Genshiryoku Hatsuden no Hoomu Peeji*. See also “Japan’s REA Reports 29 Nuclear Related Problems for FY99.” *Kyodo News* in English, 5 April 2000. Transcript by Foreign Broadcast Information Service, Washington, DC.

¹⁰ See Greenpeace, <http://www.greenpeace.org> and other international environmental organizations.

Commission (NRC) review of the 1999 Tokaimura accident could have been applied to any of Japan's other nuclear accidents. The NRC report found "that the general root causes of the accident were: (1) inadequate regulatory oversight; (2) lack of an appropriate safety culture; and (3) inadequate worker training and qualification." The report added, "Had the facility managed the uranium conversion process in accordance with approved procedures, the criticality accident would not have occurred. Furthermore, had the regulatory program been more effective, it is likely that any significant deviation from the approved safety requirements would have been detected and properly addressed."¹¹

Objections to Central Authority

After the overt public outcry against the mismanagement of each nuclear mishap died down, it appears that the Japanese public used their available local political levers to protest indirectly against the government. Local political opposition to nuclear energy focused on safety and environmental concerns and preservation of the community where the accident took place. Only a few activists focused on influencing politics at a national level.

The list of public resistance actions against the shipment of nuclear materials, siting of nuclear plants, and disposal of radioactive waste is becoming long and broad. The participants in these protests did not, however, demand outright a change in nuclear policy; they simply demanded more control over their community's future. But, the protests took a decidedly broader political caste, gaining support from elected officials and producing votes against nuclear power-related issues. Some estimates find that between 1990 and 1997, 717 distinct groups conducted 944 protests against nuclear and toxic pollution.¹²

Two public expressions against nuclear power stand out. First, in 1996, a public referendum in Japan, the first of its kind on any issue, was held in the town of Maki, Niigata Prefecture. In the non-binding referendum, the citizens of Maki rejected the construction of a nuclear power plant in their township. The outcome of the plebiscite was not legally binding, but the town's mayor did, as promised, bar the sale of municipal land to the electric company. At the time, the Chief Cabinet secretary of the central government was quick to note, "The result of

¹¹ Nuclear Regulatory Commission. "Review Of The Tokai-Mura Criticality Accident And Lessons Learned" 4/12/00, #SECY-00-0085. See: <http://www.nrc.gov/NRC/COMMISSION/SECYS/secy2000-0085/2000-0085scy.html>

the plebiscite will not influence the nation's nuclear-energy policy."¹³ Maki's mayor was overwhelming reelected in January 2000 with the pledge to end the local electric power company's effort to build any nuclear power plant in the area.

Second, Masayasu Kitagawa, the governor of Mie Prefecture, outright rejected the construction of the Ashihama reactor in his prefecture when he demanded cancellation of the project in a speech to the Mie Prefectural Assembly. On the same day as the speech, the president of Chubu Electric Company announced that the company intended to cancel plans to construct the reactor. These two events ended a 37-year dispute over the plant's siting, which included the gathering of 810,000 signatures, or half of Mie's electorate, in a 1996 petition against the building of the nuclear reactor.¹⁴

Other Forms of Anti-Nuclear Opposition

Other forms of recent citizen assertiveness include the votes in townships against and refusal of mayors to open their communities to nuclear waste. The town council of Yakuin, Kagoshima Prefecture agreed unanimously in March 2000 to adopt a resolution opposing any plans to build a storage facility for spent nuclear fuel. Only rumors had existed that this project would be brought to the area. In December 1999, a group of residents of Togocho in Tottori Prefecture dumped an 800-kg load of depleted uranium ore at the door of a nearby government lab, the Japan Nuclear Cycle Development Institute, that had been "temporarily" stored since 1993 in an abandoned mine in their district.

Government Reaction

Interestingly, Japanese industry and government have, for now, backed off implementation of ambitious nuclear plant expansion plans. While many nuclear power plants have been planned and postponed, it is significant that they are now being canceled outright. In August 1999, the Japanese government officially announced it would scrap plans to build in Aomori Prefecture in northern Japan a demonstration advanced thermal nuclear reactor (ATR),

¹² As cited in Broadbent, Jeffrey. "Japan's Changing Environmental Regime: Treadmill or Modernization?" 23 March 2000. (Unpublished, Collection of Author).

¹³ "Town's Anti-Nuclear Vote Sends Shock Wave to Tokyo." *Nikkei Weekly* in English, 12 August 1996, pp. 1, 19. [Transcript by Foreign Board Information Service, Washington, D.C.].

¹⁴ Nishio Baku. "Plans For Nuclear Power Plant at Ashihama Dropped." *Nuke Info Tokyo*. (Citizens' Nuclear Information Center English Newsletter). No. 76, March/April 2000, p. 3.

which runs on recycled plutonium as well as the enriched uranium used in conventional reactors. In July, Japan's 9 biggest utilities, which had been asked to foot part of the bill for the costly advanced thermal reactor project, asked the government to drop the project because of high costs. In November 1999, the Electric Power Development Coordination Council, an advisory body to the Prime Minister, decided to shelve expansion plans for nuclear plants in Shimane Prefecture and Hokkaido after failing to win approval from local municipalities. Most interesting, in March 2000, the Japanese government responded to increasingly bitter public protests over the safety and wisdom of nuclear power by initiating a review of the construction plans of all 20 proposed nuclear power plants, suggesting that maybe only five or six maybe appropriate.¹⁵

In tandem to its go-slow approach toward nuclear power production, the government has produced a variety of new laws and institutional changes to address safety concerns voiced after the most recent Tokaimura accident. Since December 1999, a spate of new laws has been enacted on nuclear waste storage, regulation of the nuclear industry, and frameworks for emergency response to nuclear accidents. These laws allow the Prime Minister to declare a state of emergency, to use Self Defense Forces during emergency situations, and to upgrade the Nuclear Safety Commission to independent commission status in the Prime Minister's Office.

Additional government actions indicate it is willing to acknowledge defects in its nuclear energy policy. The government's Investigation Committee on the Criticality Accident at the Uranium Fabrication Plant issued a surprisingly frank report on the 1999 Tokaimura nuclear fuel accident, admitting a slow and inadequate response. In February 2000, the government suspended indefinitely the use of imported recycled plutonium fuel (MOX) from Britain in light of the falsification of quality control documents by British reprocessing plant workers. Also, in March 2000, the first ever-nuclear emergency drill was held at a reactor in Fukui. As of April 1, the Nuclear Safety Commission (NSC) moved from the Science and Technology Ministry to direct control under the Office of the Prime Minister and increased its full-time staff.

Still, it is questionable whether these Japanese government responses are more than just tactics designed to distract criticism following Tokaimura. As mentioned earlier, previous accidents were also followed by some government response. The major difference this time is

¹⁵ "ANALYSIS: Govt Mulls Cut In Nuclear Power Plant Construction" Nikkei Net, 10 March 2000. <http://www.nni.nikkei.co.jp/AC/TNKS/Search/Nni20000310DNBN310F.htm>. Accessed March 10, 2000.

that a temporary postponement of Japan's nuclear energy policy has occurred, and laws have changed. Whether the public can benefit from these actions depends on its ability to capitalize on these trends and to utilize opportunities created by political and social changes.

The nuclear accidents have contributed greatly to shattering public confidence in government and corporate nuclear oversight. People feeling "very uneasy" about nuclear power went from 21 percent before the Tokaimura accident to 52 percent afterwards. In an October 1999 Japan Public Opinion Company survey, only 11 percent supported government plans to increase nuclear power. Fifty-one percent said keep the present situation, and 33 percent said reduce or stop nuclear power. Given a choice, the public preferred non-nuclear options (solar/wind generation 62 percent, conservation 54.9 percent, compared to 20 percent for nuclear power).¹⁶ In other words, the public does not completely accept the government's arguments that nuclear power is safe, necessary for Japan's energy security, and ecologically sound because it does not emit smoke.

Political Changes in the 1990s

Political and social changes that occurred in Japan in the mid- to late-1990s have increased the role public opinion can play in bringing about change in government policies. Political and economic upheavals, coupled with numerous scandals involving bureaucrats and politicians, have eroded public trust in the government. These misdeeds have led to stronger calls for policy reform. Most importantly, the public has come to distrust the judgement and efficiency of government institutions. A March 2000 *Asahi Shimbun* poll highlights this growing lack of trust in traditional authority figures. The poll found that 75 percent do not trust bureaucrats. For the same respondents, 41 percent do not trust banks, 60 percent of respondents do not trust the police, and 74 percent do not trust politicians.¹⁷

¹⁶ Office of the Prime Minister. *Enerugii ni Kansuru Seron Chôsa* [Public Opinion Poll On Energy]. February 1999 (released November 1999). Poll taken 18-28 February 1999.

¹⁷ *Asahi Shimbun*. 28 March 2000. Poll taken 20-21 March 2000.

Degree of Japanese Trust in Public Institutions

	Politicians	Bureaucrats	Police	Banks	Teachers
Trust	2%	2%	6%	10%	11%
Trust to some degree	22%	17%	32%	44%	51%
Don't really trust	52%	44%	32%	28%	24%
Do not trust	22%	31%	28%	13%	8%
Other, No Answer	2%	6%	2%	5%	6%

(Source: *Asahi Shimbun*, 28 March 2000)

Another poll conducted by the *Yomiuri Shimbun* and Gallup one year earlier comparing American and Japanese attitudes toward government institutions discovered equally low levels of support for Japanese government leadership. The April 1999 *Yomiuri Shimbun*-Gallup Poll found that only 1.9 percent of Japanese have high confidence in their prime minister compared to 33 percent of Americans who have high confidence in the president. Only 2.7 percent of Japanese had high confidence in the Diet compared to 26.1 percent of Americans with high confidence in Congress. Only 1 percent of Japanese had high confidence in government agencies compared to 16.8 percent of Americans. Both groups had similar levels of high confidence in the police and public prosecutors' offices: 29.2 percent for the Japanese and 30.1 percent for Americans.¹⁸

The Lost Decade

The origins of public worries toward their officials can be traced to a variety of mishaps, scandals, and incidents involving government officials during one of Japan's longest economic downturns. The 1990s are viewed as the "lost decade" in which Japan lost its economic and political way. Corrupt and incompetent officials were exposed while the ineffectiveness of lax regulations became clear. Involvement of gangsters in industry, finance, waste management and other critical areas became intolerable. Common bureaucratic remedies proved ineffective in the era of rapid communications, complex finance, and computers. The Liberal Democratic Party lost its unconditional mandate to lead the government. Indeed, the current way of doing business

¹⁸ *Yomiuri Shimbun*-Gallup Poll. April 1999.

in Japan was perceived nationally and internationally as failing, and the Japanese miracle appeared to be fading.

The bursting of Japan's economic bubble in 1989, with its effects felt in the early 1990s, shook the confidence of Japanese people. Savings, careers, jobs, and trust were lost. Although Japan remains the second largest economy in the world with the highest level of foreign exchange reserves, there are doubts whether such wealth can last without deep structural changes. Japan has seen its GDP growth rate slip from over four percent to below zero in a decade and its traditionally low unemployment rates soar to over four percent.

Shattered Faith

More important, the 1990s were a decade of disillusionment. The fundamental trust of the Japanese people in the wisdom and guidance of their leadership was badly damaged. At every turn, the Japanese government was accused of failing to protect its citizens. Corruption scandals in the Ministry of Health and Welfare (MHW) and the prestigious Ministry of Finance (MoF) raised serious, unprecedented questions about the professionalism and ability of elites to selflessly determine the public interest. Government willingness to promote needless public works projects and to use public funds to bail out failing banks and business has alarmed the Japanese electorate. A string of technology failures in the train system, the space program, and Internet security have questioned the know-how and professionalism of Japan's technology elite.

In 1994, Ministry of Health and Welfare officials allowed HIV-tainted blood to be distributed long after they were warned of its dangers and then tried to cover up their decision. Other senior MHW officials were found profiting from the siting and promotion of nursing homes. In 1995 and 1996, Ministry of Finance officials were accused of bribery and unwise use of public funds to bail out banks. In 1995, the reliability of domestic security forces came into question when their inability to prevent the gassing of Tokyo citizens by the religious cult Aum Shinrikyo. This view was compounded in 2000 by a series of police corruption scandals including the revelation that members of the same cult were hired unknowingly to produce software for police and government officials. Scandals such as this resulted in the formation of a Council on the Reform of Police Systems. The Council Chairman made a unique point at the opening meeting in March 2000 that the "emphasis would be on the "people's point of view" and that the recommendations "would be of no use if they provide a cover for the administration."

The Council immediately asked for a homepage to solicit public comment, promised to hold regional meetings, and chose freedom of information as the first topic of discussion.¹⁹

The inability of the Japanese government to respond adequately and rapidly to the Kobe earthquake in 1995 is viewed as a turning point in Japanese attitudes toward their government and community. Many see the government's failure and the good will and volunteerism of Japanese citizens to provide services after the earthquake as the birth of "civil society" in Japan. The government lost its aura of infallibility that year.

Other factors such as the failure of the government to anticipate the North Korean missile launch in 1998, and its general mishandling of the economy to record levels of unemployment have caused Japan's citizens to lose confidence as well. This view was accentuated by the Tokaimura accident. Investigations into the incident revealed corporate illegality and poor government regulation, oversight, and disaster preparation. Revelation of the existence of a special manual designed to circumvent safety measures confirmed beliefs that Japanese officials simply wanted to deceive the public for economic gain. The Japanese as well as the international community were further amazed that Tokyo had neither plans for emergency drills nor a framework to respond to nuclear accidents.

The Emerging Importance of Local Government

Distrust in the central government has often meant an increased level of support for local government. Local government institutions have been used repeatedly since the 1990s to challenge national government authority. Numerous referenda²⁰ have led to the rejection by local citizens of government public works projects and demands. Examples include the local vote in 1998 against the construction of a floating helicopter pad in Okinawa, the January 2000 vote in Tokushima against the building of a floating dam (weir), and the March 2000 new environmental ordinances by Sugunami Ward (Tokyo) head against large stores. Local leaders

¹⁹ "Police Reform: Prime Minister in Horns of Dilemma Over Amending or Resubmitting the Revised Bill as Reform Panel Kicks Off." *Yomiuri*, 24 March, 2000. [Translation by the U.S. Embassy, Tokyo, 3/27/00].

²⁰ Until 1996 there had been no local referendum voting in Japan. In a recent survey by Japan's Home Affairs Ministry, found "16 municipalities in Japan have called for referendums with actual voting taking place in 10 cases." "Referendum-Survey: 16 Municipalities in Japan Have Called Referenda." *Kyodo* in English, 19 April 2000. [Transcript by Foreign Board Information Service, Washington, D.C.]. N.B. this survey does not yet appear to be on the Internet (5/7/00).

such as Tokyo's outspoken, nationalistic Governor Shintaro Ishihara have been elected by voters on campaigns thriving on local opposition to central government control.

New Circumstance for Dissent

The 1990s saw the introduction of potentially powerful means through which ordinary Japanese could become better informed and more active. More opportunities now exist for citizens to hear a diversity of voices and build a public debate. Changes in voting laws, allowing some voting for individuals instead of parties, have occurred that are intended to make politicians more responsive to civic needs. Legal and administrative changes throughout the 1990s have allowed for new institutions and new avenues to question authority.

Electoral Reform

An important product of the "Lost Decade" was the Electoral Reform Act of 1994.²¹ Scholars identify the revision of the Diet's Lower House electoral system as "arguably the most far-reaching political reform in Japan since those introduced during the U.S. Occupation after the Second World War."²² The former electoral system utilized a multi-member district system where several candidates, often from the same party, vied for a number of open seats in each district. Under this system, party leaders had a large say in the selection of individual representatives. Its replacement was a hybrid system of 500 districts, 300 of which are determined by single-seat, simple majority (SSSM) elections and the remaining 200 through proportional-representation (PR) elections in 11 regional districts. Voters were now given two votes, one for a single candidate in their local SSSM district, and one for a single party in their regional PR district. The reforms, passed by the short-lived non-LDP coalition government in cooperation with the LDP, were intended to introduce a system that would allow voters to select individual representatives based on their policy positions. The new system was also designed to eliminate the competition between members within the same party. It was also hoped that the new system would encourage party mergers, leaving fewer but stronger political parties that

²¹ Ray Christensen, 2000. *Ending the LDP Hegemony: Party Cooperation in Japan*. Honolulu: University of Hawai'i Press. and Gerald L.Curtis, 1999. *The Logic of Japanese Politics: Leaders, Institutions, and the Limits of Change*. New York: Columbia University Press.

²² Gerald Curtis. *The Logic of Japanese Politics: Leaders, Institutions, and the Limits of Change*. (New York: Columbia University Press, 1999: p137.

could provide a consistent challenge to one-party rule. The expected benefits to voters would be candidates and parties that offered clearer stances on important policy issues.

Since its inception, the new electoral system has been utilized only once. This was during the 1996 Lower House elections. It is, therefore, too early to evaluate the effectiveness of the reforms. Parties did merge or form coalitions, but many of these mergers were dissolved in the years following the 1996 elections. Clear policy differences between parties also have yet to materialize, but the pressure to develop party platforms remains. Changes made in the way politics is conducted in Japan during the transition from one system to another make it difficult to declare the reforms a success or failure. Still, the initiation of the reforms is important testimony to the reasons for public hope in increased political participation.

Administrative Reform

Another set of reforms important to opening the door to new understanding for the public of how Japan works involved restructuring administrative and financial institutions. The Hashimoto Administration (1996-1998) initiated a number of reforms and studies on administrative and financial issues. The international community that desired greater international understanding of Japan's decision-making process and international standards of economic regulation also supported many of his initiatives.²³ Examples of positive reform include the opening of government advisory council (*shingikai*) meetings to the public and the initiation of public comment procedures by all government ministries, many of which receive comments over the Internet.²⁴

New laws aimed at making citizen organization easier have also passed the Diet. In December 1998, non-state sponsored non-profit organizations were finally allowed to become "legal persons" (the NPO Law) without government approval or supervision. Without the ability to legally present itself a group to vendors or constituents, it had been difficult for many charity and activist organizations to grow and be effective. Currently, the great majority of Japanese nonprofits are governmental entities. This change may have a significant impact on citizen

²³ See Japan deregulation initiatives by the United States, <http://www.ustr.gov> and the European Union, <http://www.euunion.org>.

²⁴ See: Jean Heilman Grier, "Is Japan's Regulatory System Becoming More Transparent and Accountable?," September 1999. (Unpublished, Collection of Author). An expanded and updated version of this paper is expected shortly. Contact Ms. Grier at the U.S. Commerce Department, jgrier@doc.gov.

activism and may “significantly shift the state-society power balance.”²⁵ Many observers feel that the recent advances toward developing a “civil society” portend extensive challenges to the traditional definitions of public interest.²⁶

Starting in April 2001, a national freedom of information law will go into effect in Japan. Already many towns and all prefectures have these laws that have opened up formerly opaque government decisions and budgets to greater public scrutiny. There will be some remaining controversy, however, about how government ministries define any “exemptions” from the statute.²⁷

The Role of Voters

Worries within the ranks of the Liberal Democratic Party (LDP), Japan’s dominant political party, may create opportunities for opponents of nuclear energy to play a greater role in politics. The LDP fears, correctly, an electoral backlash if it does not deal with the dangers of nuclear power. Ever since its temporary removal from leadership following the breakup of the party in 1993, the LDP has done whatever necessary to preserve its power base. This has included the formation of political alliances once thought impossible, first with the Social Democratic Party in 1994, and then with the Liberal Party and New Komeito Party in 1998. The LDP has also started to respond to the concerns of an expanding sector of the electorate: the non-affiliated voter. These voters who claim no party affiliation are the ones making their voices heard locally on nuclear power, voting in numbers too large for the LDP to ignore.

This ever-growing number of independent voters represents 40-50 percent of the electorate. In an April 2000 *Yomiuri Shimbun* poll on support for Japan’s political parties, 43.7 percent of respondents said they support no party. 34.7 percent said they support the LDP, while 8 percent said they support the Democratic Party. Collective support for all nine non-LDP

²⁵ Robert Pekkanen, “Japan’s New Politics, The Case of the NPO Law.” *Journal of Japanese Studies* 26, No.1 (Winter 2000). Seattle: University of Washington, Seattle. Excellent discussion of the history and potential of the NPO Law.

²⁶ Tadashi Yamamoto, ed., 1999. *Deciding the Public Good: Governance and Civil Society in Japan*. Tokyo, Japan: Japan Center for International Exchange, Inc.

²⁷ See David Boling, “Access to Government-Held Information in Japan: ‘Right to Know’ Bows to the Bureaucracy.” 34 *Stanford J. Int’l Law* 1 (1998). and Lawrence Repeta, “Local Government Disclosure Systems in Japan.” NBR Publications: Executive Insight, No. 16 (October 1999). http://www.nbr.org/publications/executive_insight/no16/index.html, accessed 5/06/00.

parties/political clubs including the Democrats totaled only 22.1 percent.²⁸ Those opposed to Japan's nuclear policies have not historically been friends of the LDP, which would place them in the 65.3 percent of the population that does not support the party.

Current polls such as the one above, however, indicate only 22 percent of the non-LDP voters support other parties. It is hard for the LDP to imagine that all opponents of its policy fall within this small percentage, so it must consider the possibility of a voter backlash if it does not make concessions on its nuclear energy policy. Recent reevaluation of nuclear policy may therefore be an attempt to pacify this segment of the electorate.

The Internet and International Opinion

Through the advent of globalization and modern telecommunications, Japan is no longer a poor or isolated nation. Modern telecommunications and the Internet have broken down communications barriers and opened the second largest economy in the world to unparalleled international scrutiny. At the same time, these same technologies have raised domestic levels of awareness by providing new means of information transmission. A key element of change in 1990s Japan was the emergence of the Internet as a new means of information distribution. As of March 31, 2000, an estimated 12 million Japanese subscribed to Internet service with one of Japan's top 15 Internet service providers, and 7.5 million Japanese had signed up for mobile Internet access via cellular phone.²⁹ These Internet users represent potential recipients of information made available by citizens' groups via the Internet that was not readily available even five years ago.

The information age brought on by the Internet has opened a new means of access for activists to educate other segments of the Japanese public on issues of concern. Through the use of the Internet, citizens' groups can provide up-to-date information to millions of people in a cheap and timely manner. Several individual groups can also pool resources through Internet networks to aid in efficient exchanges of information between the public and the groups

²⁸ *Yomiuri Shimbun*. 18 April 2000. Poll taken 15-16 April 2000. Poll on support of Mori Cabinet and political parties. *Yomiuri Shimbun*. 18 April 2000, Morning Edition, p. 2.

²⁹ Ministry of Posts and Telecommunications. *Intaanetto Setsuzoku Saabisu no Riyôsha Sûtô, Heisei 12 Nen 4 Gatsu* [Number of Users of Internet Connection Services, April 2000]. News Flash. April 28, 2000. <http://www.mpt.go.jp/pressrelease/japanese/denki/000428j601.html>

themselves.³⁰ Citizens' groups have used the Internet effectively as a new tool to monitor and affect Japanese public opinion. Most important, the Internet allows Japanese activists immediate support and access to other interested groups throughout the world. As Japanese authorities have recently found, the protests against shipments of nuclear materials Japan were international incidents and tracked worldwide.

The National Security Argument

For decades, the Japanese government has pursued rather expansive nuclear power policies despite an expected "allergy" to all things nuclear by the Japanese public. The government actively supports the construction of nuclear power plants to decrease Japanese dependence on oil and natural gas imports. Today, over 30 percent of Japan's electric power is generated by nuclear power, making it second after France in terms of nuclear energy usage among G-7 nations.³¹

Energy security has long been one of the three pillars of Japanese energy policy with the others being the environment and the economy. It is also the primary rationale for nuclear energy's rapid development and emphasis on a complete nuclear fuel cycle. It is on the basis of energy security that Japan's elite continues to insist that nuclear power is essential. One of the origins of Japan's ambitious nuclear policy lies in the concerns of Japanese leaders who have interpreted history as a series of unreasonable assaults on an island nearly devoid of natural resources. They perceive Japan as exposed to inexplicable supply disruptions. They argue that Japan would be "too weak" without recourse to an independent energy supply. Suggestions that better diplomacy, alternative energy sources, and reliance on markets can alleviate this vulnerability are discounted.³²

Public opinion opposing nuclear energy and Japanese security policy presents a challenge to this national security pillar. Further questioning of the security risks to nuclear reactors poised by terrorism, cyberwar, or missile attacks is also appearing.³³ Resistance to government

³⁰ One prominent example of this is the JCA-NET, a non-profit Internet provider that provides free Internet access and webpages for citizens' groups throughout Japan to promote the exchange of information between non-profit organizations and the public on social issues. <http://www.jca.apc.org> JCA-NET provides access to a number of anti-nuclear groups, the most prominent being Citizens' Nuclear Information Center. <http://www.jca.apc.org/cnic>

³¹ Energy Information Administration, US Department of Energy. *International Energy Outlook 2000*. Report # DOE/EIA-0484 (2000). <http://www.eida.doe.gov/oiaf/ieo/index.html> (Accessed 5/9/00)

³² See Ricard Samuels, 1994. *Rich Nation, Strong Army*. Ithaca, NY: Cornell University Press.

³³ "Japan's Nuclear Coast Alarmed by Terrorism Fear." *Financial Times*, 24 August 1999, p. 4.

mandates at the local level, combined with nationwide opinion polls showing declining support for nuclear energy, are becoming too much for the central government to ignore. Responding to demands for change, however, means going against a policy that the government has long argued is essential to maintaining national security.

Elite Views on Energy Security

Japanese nuclear energy experts continue to emphasize the importance of nuclear energy to Japan's energy security. In a survey released at the end of March 2000 by the Japan Productivity Center for Socio-Economic Development (JPC-SED), 60.3 percent of energy experts surveyed expressed extreme worries about Japan's current energy security.³⁴ Much of this concern was attributed to threats to Japan's nuclear power industry. Given a variety of potential concerns to identify, 64.2 percent of energy experts surveyed had strong concerns about the risk to energy security posed by limitations to securing sites for nuclear power plants; 49 percent of the experts also had strong concerns about risks posed by large accidents at nuclear power facilities; 74 percent had strong concerns about energy demand increases brought about by Asian economic development being a risk to Japan's energy security.³⁵ Seventy percent of the energy experts also believe that Japan's goal of having 20 new nuclear reactors in use by 2010 is unattainable.³⁶ In response to these concerns, the experts pointed out that while the need for nuclear energy is recognized by the nation, officials must focus on establishing that it is safe and must renew trust in the energy source.³⁷ Experts, therefore, focused on the importance of reselling the current policy to the public rather than recommending a policy review or change.

The views expressed by these experts reflect the inability of Japan's nuclear elite to interpret the importance of a growing resistance to current nuclear energy policies. Although they recognize that growing protests and other challenges to the central government's authority are a problem, they still are attempting to solve this problem through a traditional campaign designed to re-convince the public that nuclear power is safe and environmentally friendly.

³⁴ Japan Productivity Center for Socio-Economic Development; Energy and Environmental Policy Section, Special Committee on Energy Issues 2000. *Enerugii Sekyuriti no Kakuritsu to 21 Seiki no Enerugii Seisaku no Arikata—Yūshikisha Ankeeto Chōsa ni Motozuite* [The Establishment of Energy Security and Ideal Energy Policies in the 21st Century—Based on a Survey of Learned Persons]. Tokyo: March 30, 2000, 231pp. Survey conducted 3 December 1999 to 6 January 2000.

³⁵ *Ibid.*, p11.

³⁶ *Ibid.*, p13.

³⁷ *Ibid.*, p20-21.

Unfortunately for MITI and energy experts, the social, political, and government structural changes of the 1990s make it difficult for officials to convince an increasingly skeptical public that the merits of increased nuclear energy output outweigh the risks of building more nuclear reactors.

Expert insistence on maintaining the current policy is puzzling given doubts expressed among nuclear energy industry experts that MITI will be able to reach its goal of 20 new nuclear reactors by 2010. As mentioned above, the vast majority of experts surveyed by the JPC-SED believe that this goal is unattainable. A powerful majority in the nuclear power industry agrees. A Japan Atomic Industrial Forum survey released in December 1999 found that only 8.5 percent of industry officials and workers believe it is possible to construct another 20 atomic reactors by 2010; 0.4 percent believe that another 16-19 reactors can be built; and 11.7 percent believe that 11-15 can be built.³⁸ A majority of 57.1 percent, however, believes that only 6-10 reactors can be built by the target year.

In other words, experts both within the nuclear energy industry and in the energy policymaking community agree that the plan calling for 20 reactors is wishful thinking. This is in addition to recent arguments that the overall financial and environmental costs actually make nuclear power more expensive than power derived from fossil fuels. That Japan's nuclear power elite would still continue to support a policy that they believe is infeasible is confusing. The irrationality of the current policy, together with local opposition to national government edicts and trends in national and local public opinion against nuclear power, all make it very difficult for MITI to continue to support for a policy unpopular in most segments of Japanese society.

Interpreting Japanese Public Opinion On Nuclear Energy

Public Ambivalence

Arguing that public opinion has played a meaningful role in bringing about recent changes in government policy requires demonstrating that public opinion on nuclear energy policy has actually changed. Studies of public opinion towards nuclear energy in the early 1990s (prior to any major domestic nuclear accident) determined that Japanese attitudes towards nuclear energy were characterized by ambivalence and uncertainty.

Examining a 1991 Prime Minister's Office poll on nuclear energy, Tanaka (1994) showed that while a plurality of Japanese (33 percent) recognized that nuclear energy or oil would be the primary source of energy by the year 2000, they were sharply divided on the issue of nuclear safety (51 percent said it was safe, 49 percent disagreed).³⁹ In other words, the survey respondents, at the time, acknowledged the need for nuclear energy but were unsure about the safety of using it.

Other polls taken throughout the 1990s reflect this uncertainty in the public over what stance to take on Japan's nuclear energy policy. A series of polls taken from 1990 to 1994 by the NHK Broadcasting Cultural Research Center demonstrated that while support for building more nuclear power plants hovered between 7-11 percent and support for abolishing nuclear power stuck 9-13 percent, support for "taking a cautious attitude" towards nuclear power ranged consistently between 50-60 percent.⁴⁰

More recent polls seem to lead to the same conclusion. A follow-up poll conducted by the NHK Broadcasting Cultural Research Center showed results that were essentially unchanged as those found in the earlier polls despite coming after nuclear power-related accidents at Monju in 1995 and Tokaimura in 1997.⁴¹ The 1998 poll found that only 8 percent of respondents believed that it is necessary to build more nuclear power plants in Japan. 10 percent supported abolition of nuclear power, while 55 percent said it was necessary to take a cautious attitude. Views that emphasize caution but do not demand the abolition of nuclear facilities appear consistent in NHK polls throughout the decade

A February 1999 Prime Minister's Office poll on energy also provided evidence of continued Japanese public ambivalence on nuclear energy.⁴² The poll found that 42.7 percent of respondents thought that the number of nuclear power plants should increase, while 27.2 percent

³⁸ Japan Atomic Industrial Forum. FY1998 Survey Report on the State of the Nuclear Power Industry. Released 18 December 1999. Reported by Citizens' Nuclear Information Center in "News Watch." *Nuke Info Tokyo*, No. 75, Jan./Feb. 2000, p. 15-16.

³⁹ Yasumasa Tanaka. "Toward a Symbiotic Coexistence of Energy and People: Importance of Coordinating Institutional Arrangements and Risk Communications." In Thomas C. Lowinger and George W. Hinman, eds. *Nuclear Power At the Crossroads: Challenges and Prospects for the Twenty-First Century*. (Boulder, CO: International Research Center for Energy and Economic Development, 1994: p. 67-68.

⁴⁰ NHK Broadcasting Culture Research Institute. Poll#1: 1 March 1993. Poll taken 20-21 October, 1990; Poll #2: 1 May 1993, Poll taken 6-7 March 1993; Poll #3: 1 May 1994, Poll taken 5-6 March 1994. Roper Center for Public Opinion Research.

⁴¹ NHK Broadcasting Culture Research Institute. 1 June 1998. Poll taken 27 February to 1 March 1998. Roper Center for Public Opinion Research.

thought the status quo should be maintained, and 21.4 percent thought nuclear power plants should be abolished. When asked about concerns regarding nuclear power generation, however, 68.3 percent of respondents said they felt worried about Japan's nuclear power generation, while only 25.4 percent said they felt at ease. It appears that a majority of Japanese (69.9 percent) supports the existence of nuclear power, but an almost equal majority (68.3 percent) is worried about the effects of using nuclear power generation.

Polls such as those mentioned above provided the government with the “green light” it needed to pursue a policy of expanding nuclear power. While there was no evidence of overwhelming support for more nuclear power plants, the polls seemed to present a public placing its trust in the government by saying, “proceed with caution.”

Changing Attitudes

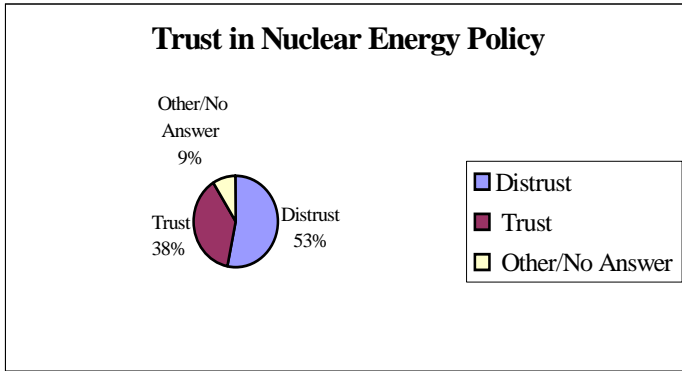
Trust in the government's nuclear energy policy, whether real or constructed, evaporated after the September 1999 Tokaimura criticality accident. Workers at a JCO fabrication plant, ignoring safety procedure, mixed several times the maximum safe amount of uranium in buckets, causing a nuclear chain reaction. Three workers suffered serious radiation poisoning (two died), and significant amounts of radiation were released into the environment for a brief period. Subsequent International Atomic Energy Agency and Japanese government reports focused on the human error and faulty procedures resulting in the accident,⁴³ but the real question on the public's mind was why the government hadn't been able to prevent the incident. Responsibility for conducting regular reviews of this type of nuclear facilities rests with the government's Science & Technology Agency (STA). Yet, unsafe practices were allowed to continue until a major accident occurred.

Public opinion polls conducted in the months immediately following the accident showed a loss of trust in the Japanese government's nuclear energy policy. In an October 1999 *Asahi Shimbun* poll taken shortly after the Tokaimura criticality accident, 42 percent of respondents

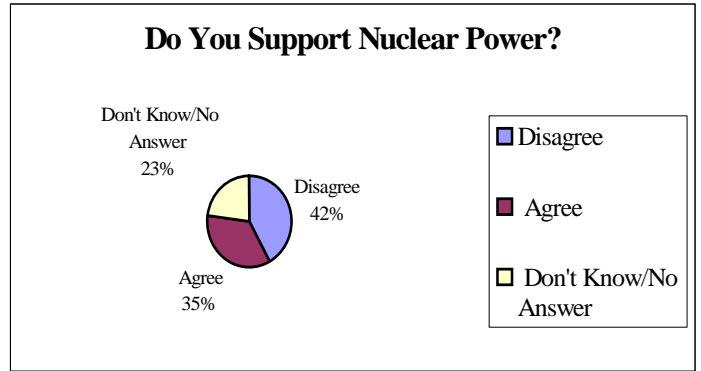
⁴² Office of the Prime Minister. *Enerugii ni Kansuru Seron Chôsa* [Public Opinion Poll On Energy]. February 1999 (released November 1999). Poll taken 18-28 February 1999.

⁴³ For examples of reports, see International Atomic Energy Agency. *Report on the Preliminary Fact Finding Mission Following the Accident at the Nuclear Fuel Processing Facility in Tokaimura, Japan*. Vienna: 1999; and *Uran Kakô Kôjo Rinkai Jiko Chôsa Iinkai* [Investigation Committee on the Criticality Accident at the Uranium Fabrication Plant]. *Uran Kakô Kôjo Rinkai Jiko Chôsa Iinkai Hôkoku* [Report of the Investigation Committee on the Criticality Accident at the Uranium Fabrication Plant]. December 24, 1999.

disagreed with supporting nuclear power, while 35 percent agreed.⁴⁴ Another poll conducted in November 1999 by *Mainichi Shimbun* found that 53 percent of people have feelings of distrust regarding the Japanese government’s nuclear energy policy, while 38 percent have feelings of trust for it.⁴⁵



(Source: Mainichi Shimbun, 11/11/99)



(Source: Asahi Shimbun, 10/11/99)

The results of the polls demonstrate the public’s withdrawal of support from current nuclear policy. More than just voicing safety concerns, the polls suggest a public expressing displeasure at the violation of the trust it had in the government to insure the safe use of nuclear materials. The STA’s inability to prevent this type of accident compounded the feelings of anger and distrust felt during the 1990s against Japan’s bureaucracy. The public responded with demands for policy reviews. After initial resistance, the government has agreed to these demands.⁴⁶

It is tempting to explain away the polls as emotional reactions of the Japanese public to a very serious event. Previous polls conducted after other nuclear power plant accidents in Japan have shown higher disapproval rates than approval rates for nuclear power,⁴⁷ but the poll results

⁴⁴ *Asahi Shimbun*. 11 October 1999. Poll taken 8-9 October 1999. “Genhatsu Suishin ‘Hantai’ 42%” [42% Oppose Promoting Nuclear Power]. *Asahi Shimbun*. 11 October 1999, p1.

⁴⁵ *Mainichi Shimbun*. 11 November 1999. Poll taken 6-7 November 1999. “Genshiryoku Seisaku ni ‘Fukanshin’ wo Motsu Hito ga 53% ni Honsha Seron Chōsa.” [Mainichi Opinion Poll Shows 53% of People Have Feelings of Distrust Regarding Nuclear Power Policy]. *Mainichi Shimbun*. 11 November 1999.

⁴⁶ As late as December of 1999, MITI officials in charge of nuclear energy policy were insisting that the policy would not be changed. In March 2000, however, MITI announced that it would review its energy policy after all.

⁴⁷ One example is an *Asahi Shimbun* poll taken two months after the December 1995 accident at Monju. 44% of respondents said they disapprove of using more nuclear energy, compared to 38% who approved. *Asahi Shimbun*. 28 February 1996. Poll taken 25-26 February 1996. Another is a 1991 Jiji Press poll released in March of 1993. 42% of respondents said that nuclear power generation should not be further developed, compared with 25% who said that it should, and 33% who were not sure.

had little effect on Japanese nuclear energy policy. Several studies have also demonstrated the unreliability of public opinion regarding nuclear energy at the national level. Shimooka (1994) finds that the degree of education on the good and bad points of nuclear energy differs greatly between the general public and citizens who live near nuclear power plants.⁴⁸

Those in Tokyo and other urban areas where much of national polling takes place, tend to have access to an abundance of information on the dangers of nuclear power but not on safety measures. Those who live near nuclear power plants have a balanced amount of information on both the good and bad aspects of nuclear power. Ohnishi (1998) also finds that the characteristics of information regarding nuclear power provided by the national media and local media near power plants differ so the reactions of the nation compared to local residents also differ. Local residents have more balanced information on nuclear power, so their reaction to events tends to be more stable over time. Public reactions at the national level tend to fluctuate according the severity of incident.⁴⁹

Thus, since the *Asahi* and *Mainichi* polls were conducted at the national level immediately following the Tokaimura accident, they might not be valid proof that Japanese public opinion towards Japan's nuclear energy policy has changed. But, a survey conducted at the local level of the more stable Japanese public discussed by Ohnishi also backs the argument that attitudes have changed. In a survey conducted at the end of 1999 by the Tokaimura government planning section, the number of respondents supporting nuclear power after the Tokai accident fell to 32.2 percent from 52 percent before the accident.⁵⁰ Those calling for the discontinuation of its usage, however, rose from 11.7 percent to 40 percent after the accident. In addition, the number of respondents who said that nuclear power facilities are unsafe after the Tokai accident was 78.2 percent. Only 32.1 percent of the same respondents said they felt the facilities were unsafe before the accident.

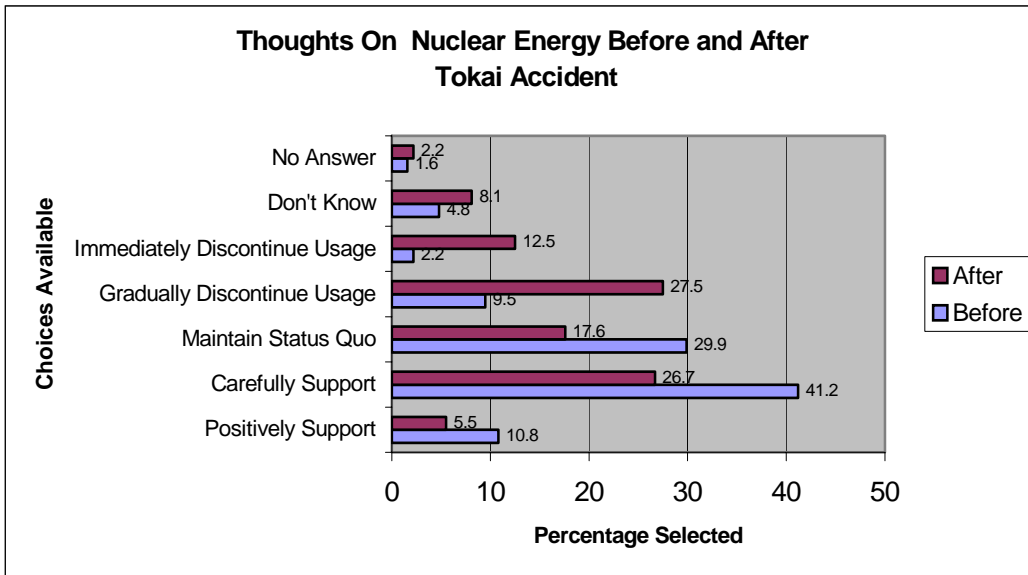
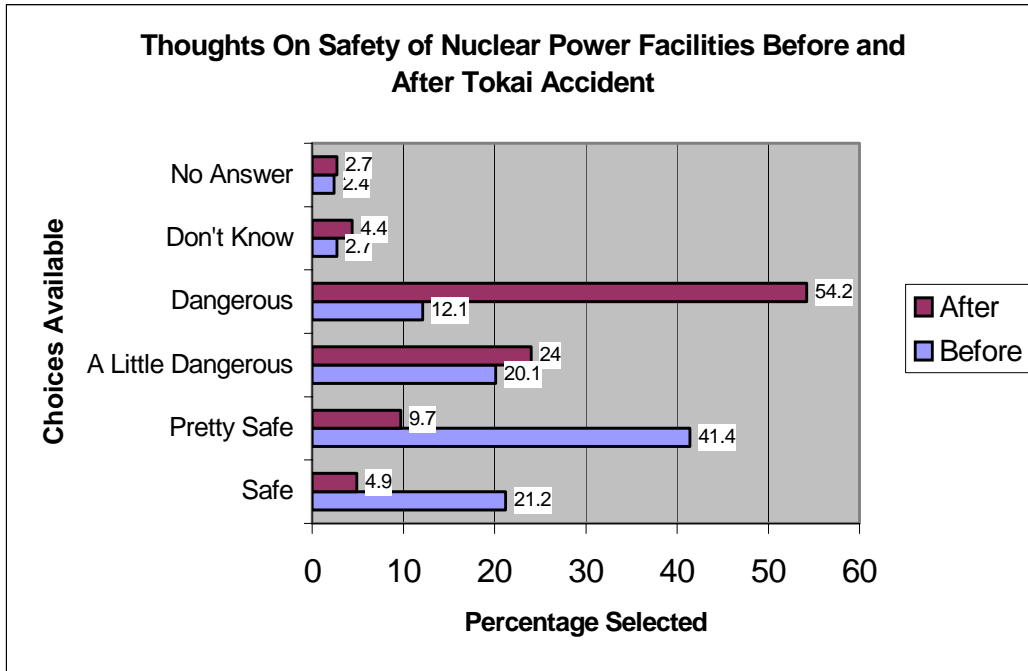
⁴⁸ Hiroshi Shimooka. "Public Acceptance and Attitudes Toward Nuclear Power in Japan." In Thomas C. Lowinger and George W. Hinman, eds. *Nuclear Power At the Crossroads: Challenges and Prospects for the Twenty-First Century*. (Boulder, CO: International Research Center for Energy and Economic Development, 1994: p86-88.

⁴⁹ Teruaki Ohnishi. "*Media Hôdô no Suii ni Tomonau Genshiryoku Seron no Henyô*" [Variation of Public Opinion Regarding Nuclear Energy with the Change of Nuclear Information by the Media]. *Nihon Genshiryoku Gakkai Shi* [Journal of the Association of Nuclear Power Studies]. Vol. 40, No. 7 (1998), p 41-49.

⁵⁰ Tokaimura Government Planning Section. 16 February 2000. Survey conducted November 1999 to 7 January 2000. Published in "*Tokaimura Bôsai to Machizukuri*" [Disaster Prevention and Town-Building] *Tokai*. No. 659. February 16, 2000.

If one accepts the arguments by Shimooka and Ohnishi that residents who live near nuclear power facilities tend to have a more balanced understanding of nuclear power, then the results of the Tokaimura survey are very significant. Tokaimura, the site of Japan's first commercial nuclear reactor in 1966, has arguably one of the best understandings of Japan's nuclear energy policy of anywhere in the country. People are well educated in the benefits and dangers of nuclear power. But many, including many who are economically dependent on the Tokai nuclear industry have come out more opposed to nuclear power than in favor of it.

POLLS OF TOKAIMURA RESIDENTS FOLLOWING THE CRITICALITY ACCIDENT IN LATE SEPTEMBER 1999



(Source: Tokaimura Village Government Planning Section, 2/16/00)

In addition, the survey shows that trust in the central government has eroded. Central government institutions scored low in terms of how reliable respondents felt they would be in an emergency. 19.6 percent said the central government could be relied on, but only 13.9 percent

felt that supervisory ministries were reliable, and only 3.3 percent had confidence in the prime minister. This is compared to 67.6 percent trust in the village government in the event of an emergency and 43 percent trust in experts at Tokaimura's nuclear power-related facilities.

The *Asahi*, *Mainichi*, and Tokaimura polls together present important evidence that a change in public opinion regarding Japan's nuclear energy policy is occurring at both the national and local levels. Their respective 42 percent, 53 percent, and 40 percent levels of opposition to nuclear power, all greater than the corresponding levels of support, show consistent opposition across Japanese society. Though not yet an overwhelming opposition, this consistent view on nuclear energy is hard for Japan's leaders to continue to ignore.

The Security Card

In contrast to ambivalence on the hazards of nuclear energy, the Japanese people appear to have a growing interest in national security defense. This means that pro-nuclear elements have room to sway the public to accept nuclear energy on national security grounds. Through public statements and study groups on security and constitutional revision, elites are cultivating this interest. Saber rattling by China and North Korea, combined with periodic disputes over islands surrounding Asian sea lanes and political instability in the region, have encouraged the trend.

Hints of this public concern about security can be found in the annual *Yomiuri* poll on changing Japan's peace constitution. The poll showed in 1999, for the first time, a majority interest in the possibility of revising the constitution, especially the famous Article 9 that prohibits Japanese use of force to settle international disputes and prohibits the maintenance of land, sea, and air forces. This was reaffirmed by the *Yomiuri* 2000 poll, in which 60 percent agreed with revision while 27 percent opposed it. The latter poll was the first time those who agreed with revision achieved 60 percent and was the first time opponents fell below 30 percent.⁵¹

The long-postponed passage of legislation designating an official flag and national anthem in early 2000 also plays into the cultivation of national pride and security. Threats of

⁵¹ *Yomiuri Shimbun*. 14 April 2000. Poll taken on 18-19 March 2000. "Kenpô Kaisei Sansei ga 6 Wari...Yomiuri Seron Chôsa." ["Those Who Agree With Revision of Constitution At 60% Says Yomiuri Poll."] *Yomiuri Shimbun*. 14 April 2000.

reducing host-nation support for US forces have taken on a particularly nationalistic tone. This disagreement has reflected attitudes displayed during the many unresolved, bitter trade disputes between the US and Japan. The “national security card” appears to be a convenient catchall for traditionalist politics. It is important to watch how Japan’s leaders interpret or manipulate growing public opinion toward national defense to gauge how the nuclear power debate will be resolved.

Concluding Observations

The decade of the ‘90s shows that the government can no longer be responsible for everything in Japanese society. The Japanese public is beginning to learn how to fill this void. Traditionally taboo areas of security and technology are being criticized by mainstream Japanese. Most important, there now exist new political tools that can broaden public participation in the political process.

The Tokaimura accident may prove a seminal event in Japanese political history. The Japanese public from the outset seemed to understand a key difference between this accident and the others that preceded it. This accident was not just a terrible, fatal mistake. It was an “accident waiting to happen.” It was preventable. The existence of a manual to specifically circumvent internationally acceptable safety procedures demonstrated clearly that Japan’s experts and officials did not take their citizen’s welfare seriously. It unveiled the arrogance and over-confidence of officials—not qualities that the Japanese generally trust.

The traditional government response to citizen activism has been to wait-out the poorly organized critics and to use the power of the media and elite to press the government’s case. But critics are better organized and have better resources both nationally and internationally to draw upon. For example, the Citizen’s Nuclear Energy Network⁵², started in 1975 as an individual’s cause, is now a 10-person operation with a growing membership, bilingual website, and respected opposition voice on nuclear issues that has grown stronger through Internet activism.

Whether or not Japan’s nuclear power policies will stay intact depends on how well Japan’s bureaucrats can either tap into latent Japanese worries about security or develop a new justification for continuing a nuclear program. As an environmental, health and economic issue, nuclear power fails in Japan. Agreements signed under the Kyoto Protocol are viewed as

⁵² Citizen’s Energy Network, <http://www.jca.ax.apc.org/cnic/english/>

“unattainable” and electric power companies are abandoning plans to build new plants for economic reasons. There remain, however, arguments in favor of nuclear program that include national security or international cooperation. The latter spreads the risk by developing energy, including nuclear, resources throughout Asia. In either case, Japan’s leadership will have to factor in public opinion.

ACKNOWLEDGEMENTS

We would like to thank scholars, Dr. Jeffrey Broadbent, Dr. Miranda Schruers, Dr. Patricia MacLachlen, and Mr. Robert Pekkanen for their patience in explaining their excellent research to us. A special thanks to Mr. James Marshall of the U.S. State Department, Office of Intelligence and Research who maintains an excellent collection of Japanese polling materials. With sadness we acknowledge the loss of the Roper Center's Japan polling service, JPOLL, the Library of Congress' Japan Documentation Center, and the Ministry of Foreign Affairs' Washington, Japan Economic Institute, all of which contributed greatly to the documentation of this report. All critical scholarly resources and all closed recently. An important thanks goes to Amy Jaffe of the Baker Institute, Rice University for her encouragement and faith in our abilities.

BIBLIOGRAPHY

BOOKS

Asia/Pacific Research Center. *Crisis and Aftermath: The Prospects for Institutional Change in Japan* (Stanford, California: Asia/Pacific Research Center, 1999).

Broadbent, Jeffrey. 1998. *Environmental Politics in Japan: Networks of Power and Protest*. United Kingdom: Cambridge University Press.

Calder, Kent E. 1988. *Crisis and Compensation: Public Policy and Political Stability in Japan, 1949-1986*. Princeton: Princeton University Press.

Carlilie, Lonny E., and Tilton, Mark C., eds. 1998. *Is Japan Really Changing Its Ways?: Regulatory Reform and the Japanese Economy*. Washington, D.C.: Brooking Institution.

Christensen, Ray. 2000. *Ending the LDP Hegemony: Party Cooperation in Japan*. Honolulu: University of Hawai'i Press.

Curtis, Gerald L. 1999. *The Logic of Japanese Politics: Leaders, Institutions, and the Limits of Change*. New York: Columbia University Press.

Freeman, Laurie Anne. 2000. *Closing the Shop: Information Cartels and Japan's Mass Media*. Princeton, N.J.: Princeton University Press.

Harrison, Selig S., ed. 1996. *Japan's Nuclear Future: The Plutonium Debate and East Asian Security*. Washington, D.C.: Carnegie Endowment for International Peace.

Imai, Ryukichi, and Owen, Henry S. 1980. *Nuclear Energy and Nuclear Proliferation: Japanese and American Views*. Boulder, Colo.: Westview Press, Inc.

Kawashima, Ruri, and Borden, Betty. 1999. *Civil Society: Japanese Experiment and American Experience*. New York, N.Y.: Japan Society.

Ladd, Everett Carll, and Bowman, Karlyn H. 1996. *Public Opinion in America and Japan: How We See Each Other and Ourselves*. Washington, D.C.: The AEI Press.

Lesbirel, S. Hayden. 1998. *NIMBY Politics in Japan: Energy Siting and the Management of Environmental Conflict*. Ithaca, N.Y.: Cornell University.

Lowinger, Thomas C., and Hinman, George W., eds. 1994. *Nuclear Power at the Crossroads: Challenges and Prospects for the Twenty-First Century*. Boulder, Colo.: International Research Center for Energy and Economic Development (ICEED).

Martin, William F.; Imai, Ryukichi; and Steeg, Helga. 1996. *Maintaining Energy Security in a Global Context*. New York, N.Y.: Trilateral Commission.

McCombs, Maxwell; Einsiedel, Edna; and Weaver, David. 1991. *Contemporary Public Opinion: Issues and the News*. Hillsdale, N. J.: Lawrence Erlbaum Associates, Inc.

McKean, Margaret A. 1981. *Environmental Protest and Citizen Politics in Japan*. Berkeley: University of California Press.

Mendel, Douglas, H. Jr. 1961. *The Japanese People and Foreign Policy: A Study of Public Opinion in Post-Treaty Japan*. Berkeley: University of California Press.

Samuels, Richard J. 1987. *The Business of the Japanese State: Energy Markets in Comparative and Historical Perspective*. Ithaca, N. Y.: Cornell University Press.

-----1994. *“Rich Nation, Strong Army”*. Ithaca, N. Y.: Cornell University Press.

Upham, Frank K. 1987. *Law and Social Change in Postwar Japan*. Cambridge, Massachusetts: Harvard University Press.

Yamamoto, Tadashi, ed. 1999. *Deciding the Public Good: Governance and Civil Society in Japan*. Tokyo, Japan: Japan Center for International Exchange, Inc.

NEWSPAPER ARTICLES

“After the Binge, A Hangover for Japan’s Atomic Alley,” *Independent News*, 08 April 2000.
http://www.independent.co.uk/news/World/Pacific_Rim/2000-04/japan080400.shtml, accessed 4/8/00.

“An Upstart Governor Takes on Japan’s Mandarins,” *New York Times*, 30 March 2000.
<http://www.asahi.com/english/nyt/0330/nyt033005.html>, accessed 3/30/00.

“Analysis: MITI Panel Begins Revising Japan Energy Policy,” *Nikkei Net*, 25 April 2000.
<http://www.nni.nikkei.co.jp/AC/TNKS/Nni20000425DNBN425K.htm>, accessed 4/25/00.

“Antinuclear Mayor Wins Reelection in Niigata Town.” *Kyodo in English*, 16 January 2000.
[Transcript by Foreign Board Information Service, Washington, D.C.].

“Assessment Shows Tokaimura Nuclear Accident May Be Worst.” *Kyodo in English*, 17 March 1997. [Transcript by Foreign Board Information Service, Washington, D.C.].

“Gov’t Plans Law to Self-Assess Policies,” *Daily Yomiuri*, 08 May 2000.
<http://www.yomiuri.co.jp/newse/0508po08.htm>, accessed 5/8/00.

“Gov’t Getting to Grips With Nuclear Safety,” *Daily Yomiuri*, 31 March 2000.
<http://www.yomiuri.co.jp/newse/0331so18.htm>, accessed 3/30/00.

“Japan’s Nuclear Coast Alarmed by Terrorism Fear.” *Financial Times*, 24 August 1999, p. 4.

“Japan Needs to Lead Strategy to Cut Region’s Oil Dependence,” *Asahi News*, 30 March 2000.
<http://www.asahi.com/english/asahi/0330/asahi/033009.html>, accessed 3/30/00.

“Japan Takes Hard Look at Culture of Covering Up.” *New York Times*, 02 May 2000, p. A12.

“Japan Town says No to Nuclear Waste Facilities,” *ABC News.com*, 13 March 2000. http://www.abcnews.go.com/wire/World/reuters20000313_447.html, accessed 3/14/00.

“Japan’s REA Reports 29 Nuclear Related Problems for FY99.” *Kyodo News in English*, 5 April 2000. [Transcript by Foreign Broadcast Information Service, Washington, DC.].

“Japanese Panel Considers Freeze on New Nuclear Reactors.” *Jiji Press in English*, 27 April 2000. [Transcript by Foreign Broadcast Information Service, Washington, DC.].

“Japanese Panel to Review Nuclear-Oriented Energy Policy.” *Kyodo in English*, 24 April 2000. [Transcript by Foreign Broadcast Information Service, Washington, DC.].

“Kajiyama Says Referendum Not ‘Denial’ of Nuclear Policy.” *Kyodo*, 05 August 1996. [Transcript by Foreign Board Information Service, Washington, D.C.].

“Lesson of Tokaimura Disaster Sink in After Second Death,” *Asahi News*, 01 May 2000. <http://www.asahi.com/english/asahi/0501/asahi050115.html>, accessed 5/1/00.

“MITI Chief Fukaya on Reducing Nuclear Plant Construction.” *Nihon Keizai Shimbun in Japanese*, 31 March 2000, p. 2. [Translation by Foreign Board Information Service, Washington, D.C.].

“MITI Mulls Programs to Support Energy Conservation,” *Nikkei Net*, 22 March 2000. <http://www.nni.nikkei.co.jp/AC/TNKS/Nni20000322D22JF195.htm>, accessed 3/22/00.

“MITI Official Defends Japan’s Nuclear Power Policy.” *Jiji Press in English*, 01 January 2000. [Transcript by Foreign Board Information Service, Washington, D.C.].

“MITI to Review Energy Policy.” *Kagaku Kogyo Nippo in Japanese*, 13 March 2000, p. 11. [Translation by Foreign Broadcast Information Service, Washington, D.C.].

“Monju Incident Scars Not Yet Healed.” *Nikkan Kogyo Shimbun in Japanese*, 03 December 1996, p. 6. [Translation by Foreign Broadcast Information Service, Washington, D.C.].

“Mori’s 7 Apr Policy Speech to Diet.” *NHK General Television in Japanese*, 07 April 2000. [Translation by Foreign Broadcast Information Service, Washington, D.C.].

“News Watch.” *Nuke Info Tokyo*, No. 75 (Jan./Feb. 2000): 15-16. Tokyo, Japan: Citizens’ Nuclear Information Center.”

“Nuclear Fuel Cycle Policy Stays Put.” *Nihon Keizai Shimbun in Japanese*, 06 June 1997, p. 15. [Translation by Foreign Broadcast Information Service, Washington, D.C.].

“Police Reform: Prime Minister in Horns of Dilemma Over Amending or Resubmitting the Revised Bill as Reform Panel Kicks Off.” *Yomiuri*, 24 March, 2000. [Translation by the U.S. Embassy, Tokyo, 3/27/00].

“Referendum-Survey: 16 Municipalities in Japan Have Called Re.” *Kyodo in English*, 19 April 2000. [Transcript by Foreign Broadcast Information Service, Washington, D.C.].

“Town’s Anti-Nuclear Vote Sends Shock Wave to Tokyo.” *Nikkei Weekly in English*, 12 August 1996, pp. 1, 19. [Transcript by Foreign Broadcast Information Service, Washington, D.C.].

“Wanted: New Energy Policy Less Bound by Nuclear Power,” Editorial. *Asahi News*, 07 April 2000. <http://www.asahi.com/english/asahi/0407/asahi040713.html>, accessed 4/7/00.

“What Citizen’s Votes for Nuclear Power Plant Construction Plan May Mean.” *Enerugi Foramu*, 01 September 1996, pp. 46-49. [Translation by Foreign Broadcast Information Service, Washington, D.C.].

JOURNAL ARTICLES

Baku, Nishio. “Plans For Nuclear Power Plant at Ashihama Dropped.” *Nuke Info Tokyo*. (Citizens’ Nuclear Information Center English Newsletter). No. 76, March/April 2000, p. 3.

Boling, David. “Access to Government-Held Information in Japan: ‘Right to Know’ Bows to the Bureaucracy.” 34 *Stanford J. Int’l Law* 1 (1998).

Choy, Jon. “The Kyoto Protocol and Japan’s Energy Policies,” *JEI Report*, No. 10A (March 1998). Washington, D.C.: Japan Economic Institute.

Choy, Jon. “Japan’s Energy Market Getting Shocked.” *JEI Report*, No 6B, (14 February 1997): 3. Washington, D.C.: Japan Economic Institute.

Fun, Wada. “Civil Society in Japan Through Print and Statistical Data.” *Deciding the Public Good: Governance and Civil Society in Japan* (1999): 163-202. Tokyo, Japan: Japan Center for International Exchange.

Hasegawa, Koichi and Broadbent, Jeffrey. “The Fallout from Tokaimura.” *Minneapolis Star Tribune Commentary* (04 May 2000).

Kojima, Kazuto. “Public Opinion Trends in Japan.” *Public Opinion Quarterly* 41 (1977): 206-216.

Kono, Mitsuo. “The Future of Nuclear Power.” *Japan Review of International Affairs* (Fall 1997).

Miller, Dane Lee. “Drifting Ship, Drifting Government,” *Japan Interpreter* 12:2 (Spring 1978): 201-222.

Pekkanen, Robert. "Japan's New Politics, The Case of the NPO Law." *Journal of Japanese Studies* 26, No.1 (Winter 2000). Seattle: University of Washington, Seattle.

Repeta, Lawrence. "Local Government Disclosure Systems in Japan." NBR Publications: *Executive Insight*, No. 16 (October 1999). http://www.nbr.org/publications/executive_insight/no16/index.html, accessed 5/06/00.

Shimooka, Hiroshi. "Public Acceptance and Attitudes Toward Nuclear Power in Japan." *Nuclear Power at the Crossroads: Challenges and Prospects for the Twenty-First Century* (1994): 83-100. Boulder, Colo.: International Research Center for Energy and Economic Development (ICEED).

Shin'ichi, Yoshida. "Rethinking the Public Interest in Japan: Civil Society in the Making." *Deciding the Good Public: Governance and Civil Society in Japan* (1999): 13-49. Tokyo, Japan: Japan Center for International Exchange.

Tanaka, Yasumasa. "Toward a Symbiotic Coexistence of Energy and People: Importance of Coordinating Institutional Arrangements and Risk Communication." *Nuclear Power at the Crossroads: Challenges and Prospects for the Twenty-First Century* (1994): 67-82. Boulder, Colo.: International Research Center for Energy and Economic Development (ICEED).

GOVERNMENT DOCUMENTS

Energy Information Administration, US Department of Energy. *International Energy Outlook 2000*. Report # DOE/EIA-0484 (2000). <http://www.eia.doe.gov/oiaf/ieo/index.html> Accessed 5/9/00

Nuclear Regulatory Commission. "Review Of The Tokai -Mura Criticality Accident And Lessons Learned." 12 April 2000, #SECY-00-0085. See: <http://www.nrc.gov/NRC/COMMISSION/SECYS/secy2000-0085/2000-0085scy.html>

Office of the Advisor to the Secretary of Defense for Net Assessment, "Asia 2025: Under Secretary of Defense (Policy) 1999 Summer Study Final Report," 25 July- 4 August 1999. .

United States Energy Information Administration. Country Analysis Brief "Japan," May 2000. <http://www.eia.doe.gov/emeu/cabs/japan.html>, accessed 5/8/00.

"Uran Kakô Kôjo Rinkai Jiko Chôsa Iinkai Hôkoku" [Report of the Investigation Committee on the Criticality Accident at the Uranium Fabrication Plant]. (24 December 1999). Uran Kakô Kôjo Rinkai Jiko Chôsa Iinkai [Investigation Committee on the Criticality Accident at the Uranium Fabrication Plant]. Nuclear Safety Commission, Science & Technology Agency.

JAPANESE LANGUAGE MATERIALS

"Intaanetto Setsuzoku Saabisu no Riyôsha Sûtô, Heisei 12 Nen 4 Gatsu," [Number of Users of Internet Connection Services, April 2000]. Ministry of Posts and Telecommunications. News

Flash. See: <http://www.mpt.go.jp/pressrelease/japanese/denki/000428j601.html>, accessed 4/28/00.

Asahi Shimbun. “*Kenshō Rinkai Jiko: Genshiryoku Gyōsei; ‘Suishin’ Seisaku, Kibishisa Masu.*” [Investigation—Criticality Accident: Nuclear Power Administration; Severity of Criticism Increases on “Promotion” Policy]. *Asahi Shimbun*. 4 October 1999, Morning Edition.

Ohnishi, Teruaki. “*Media Hōdō no Sui ni Tomonau Genshiryoku Seron no Henyō*” [Variation of Public Opinion Regarding Nuclear Energy with the Change of Nuclear Information by the Media]. *Nihon Genshiryoku Gakkai Shi* [Journal of the Association of Nuclear Power Studies], 40, No. 7 (1998): 41-49.

Yomiuri Shimbun. “*Enerugii Seisaku no Saikōchiku wo Hakare.*” [Prepare For a Restructuring of Energy Policy]. Editorial. *Yomiuri Shimbun*. 20 April 2000.

OPINION POLLS

REACTIONS TO NUCLEAR ENERGY POLICY

Asahi Shimbun 28 February 1996. Poll taken 25-26 February. (Roper Center for Public Opinion Research, JPoll).

Asahi Shimbun. 11 October 1999. Poll taken 8-9 October 1999. “*Genhatsu Suishin ‘Hantai’ 42%*” [42% Oppose Promoting Nuclear Power]. *Asahi Shimbun*. 11 October 1999, p. 1.

Japan Atomic Industrial Forum. FY1998 Survey Report on the State of the Nuclear Power Industry. Released 18 December 1999. (As reported by Citizens’ Nuclear Information Center in “News Watch.” *Nuke Info Tokyo*, No. 75, Jan./Feb. 2000, pp. 15-16.)

Japan Productivity Center for Socio-Economic Development; Energy and Environmental Policy Section, Special Committee on Energy Issues 2000. *Enerugii Sekyuriti no Kakuritsu to 21 Seiki no Enerugii Seisaku no Arikata—Yūshikisha Ankeeto Chōsa ni Motozuite* [The Establishment of Energy Security and Ideal Energy Policies in the 21st Century—Based on a Survey of Learned Persons]. Tokyo: 30 March 2000, 231 pp. Survey conducted 3 December 1999 to 6 January 2000.

Jiji Press (through Central Research Services, Inc.). 30 March 1993. Poll taken 1 May 1991. (Roper Center for Public Opinion Research, JPoll)

Mainichi Shimbun. 11 November 1999. Poll taken 6-7 November 1999. “*Genshiryoku Seisaku ni ‘Fukanshin’ wo Motsu Hito ga 53% ni Honsha Seron Chōsa.*” [Mainichi Opinion Poll Shows 53% of People Have Feelings of Distrust Regarding Nuclear Power Policy]. *Mainichi Shimbun*. 11 November 1999.

NHK Broadcasting Culture Research Institute. 1 June 1998. Poll taken 27 February to 1 March 1998. (Roper Center for Public Opinion Research, JPoll)

NHK Broadcasting Culture Research Institute. 1 May 1994. Poll taken 5-6 March 1994.

(Roper Center for Public Opinion Research, JPoll)

NHK Broadcasting Culture Research Institute. 1 May 1993. Poll taken 6-7 March 1993.
(Roper Center for Public Opinion Research, JPoll)

NHK Broadcasting Culture Research Institute. 1 March 1993. Poll taken 20-21 October, 1990.
(Roper Center for Public Opinion Research, JPoll)

Office of the Prime Minister. (through Central Research Services, Inc.). 30 March 1993. Poll taken 1 July 1991. (Roper Center for Public Opinion Research, JPoll)

Office of the Prime Minister. *Shakai Ishiki ni Kansuru Seron Chôsa* [Public Opinion Poll on Social Awareness]. December 1998. Poll taken 17-27 December 1998.

Office of the Prime Minister. *Enerugii ni Kansuru Seron Chôsa* [Public Opinion Poll On Energy]. February 1999 (released November 1999). Poll taken 18-28 February 1999.

Tokaimura Government Planning Section. 16 February 2000. Survey conducted November 1999 to 7 January 2000. Published in “*Tokai-mura Bôσαι to Machizukuri*” [Disaster Prevention and Town-Building] *Tokai*. No. 659. February 16, 2000, 19 pp.

CONSTITUTIONAL REVISION

Nihon Keizai Shimbun. 3 May 2000. Poll taken April 2000. “Poll: 60% Insist On Need to Amend Constitution.” *Nihon Keizai Shimbun*. 3 May 2000, p2. [American Embassy, Tokyo: Daily Summary of Japanese Press]

Yomiuri Shimbun. 14 April 2000. Poll taken on 18-19 March 2000. “*Kenpô Kaisei Sansei ga 6 Wari... Yomiuri Seron Chôsa*.” [“Those Who Agree With Revision of Constitution At 60% Says Yomiuri Poll.”] *Yomiuri Shimbun*. 14 April 2000.

NUCLEAR WEAPONS/DEFENSE

Asahi Shimbun. 7 October 1998. Poll taken 4-5 October 1998. (Roper Center for Public Opinion Research, JPoll)

Gallup Japan. 5 June 1999. Poll taken July 1998.
<http://www.gallop.com/poll/releases/pr990605int.asp> accessed 2/21/00.

Office of the Prime Minister. (through Shin Joho Center). 1 October 1997. Poll taken 6-16 February 1997. (Roper Center for Public Opinion Research, JPoll)

United States Information Agency (through Central Research Services, Ltd.) 26 January 1994. Poll taken 19-26 January 1994. (Roper Center for Public Opinion Research)

United States Information Agency (through Shin Joho Center). 12 June 1991. Poll taken 6-12 June 1991. (Roper Center for Public Opinion Research, JPoll)

Yomiuri Shimbun. 1 February 1995. Poll taken 28-29 January 1995. (Roper Center for Public Opinion Research, JPoll)

Yomiuri Shimbun. 5 September 1997. Poll taken 30-31 August 1997. (Roper Center for Public Opinion Research, JPoll)

POLITICAL PARTY SUPPORT

Yomiuri Shimbun. 18 April 2000. Poll taken 15-16 April 2000. Poll on support of Mori Cabinet and political parties. *Yomiuri Shimbun*. 18 April 2000, Morning Edition, p. 2. [Translation By Foreign Broadcast Information Service, Washington DC]

TRUST IN GOVERNMENT INSTITUTIONS

Asahi Shimbun. 28 March 2000. Poll taken 20-21 March 2000. “*Keisatsu ‘Fushin’ 60%; 70% Soshiki Taishitsu ni Mondai*” [“Those Who ‘Distrust’ Police At 60%; 70% Point to Organization/ Institution As Problem.”] *Asahi Shimbun*. 28 March 2000, p. 1.

Yomiuri Shimbun—Gallup Poll. April 1999. *Daily Yomiuri Online*. 19 May 1999.

CONFERENCE PROCEEDINGS

Asia Program Woodrow Wilson International Center for Scholars. *Nuclear Energy Policy in Japan*. Washington, D.C. March 2000.

Japan Information Access Project and Japan-US Friendship Commission. *Japanese Deregulation: What You Should Know*. Washington, D.C. 04 April 1997.

Japan Documentation Center of the Library of Congress and Japan Information Access Project. *Japanese Public Policy: Perspectives & Resources*. Washington, D.C. 24 April 1995.

Japan-American Society of Washington. *Civil Society in Japan and the U.S.* Washington-Japan Journal, Washington D.C., Special Issue of Spring 1999.

“Report on the Preliminary Fact Finding Mission Following the Accident at the Nuclear Fuel Processing Facility in Tokaimura, Japan.” (1999). Vienna: International Atomic Energy Agency.

UNPUBLISHED MANUSCRIPTS

Broadbent, Jeffrey. “*Japan’s Changing Environmental Regime: Treadmill or Modernization?*” 23 March 2000. (Unpublished, Collection of Author).

Grier, Jean Heilman. “*Is Japan’s Regulatory System Becoming More Transparent and Accountable?*” September 1999. (Unpublished, Collection of Author).