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Rethinking Civil Society–State Relations in Japan after the Fukushima Accident

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The 3/11 combined disaster in Japan focused both Japanese civil society and government decision makers on the issue of nuclear power. Whereas surveys over the post-war period indicated that many Japanese supported the growing role of nuclear power in Japan's overall energy policy, the current crisis has resulted in a sea-change in public opinion. Even though some scholars have depicted Japanese civil society as comparatively weak and poorly organized, the disaster has stimulated citizen science, prompted large protests, and spurred many to challenge governmental authority. This article investigates the ways that Japan's relatively stable patterns of state-and-civil-society relations have been reconfigured as a result of the Tohoku disaster.

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It is no exaggeration to say that the events of 11 March 2011 changed the world. The 9.0 magnitude earthquake 40 miles off Japan's northeast coast shook buildings as far away as Tokyo and broke walls and windows closer to the epicenter. Few imagined the tragedy that would follow. Within a minute, tsunami warning alarms began wailing in the coastal towns and villages of Iwate, Miyagi, and Fukushima prefectures. Forty minutes later, a wall of water as high as 60 feet devastated the area. Close to 16,000 people were killed,¹ with thousands of homes and businesses swept out to sea.²

Thank you to Dr. David Satterwhite and the staff of the Fulbright Japan Commission for support during the writing of this article, and to Nancy Schwartz for her work in organizing this symposium.

1. National Police Agency of Japan (http://www.npa.go.jp/archive/keibi/biki/higaijokyo_e.pdf) and *Yomiuri Shinbun* 9 February 2012. Some 2,700 remain missing as of late January, 2013.

2. Fewer than 6 percent of the fatalities after the earthquake were the result of building collapse; the vast majority (92 percent) of known deaths came about because of drowning. See Stephanie Chang, *et al.* "The March 11, 2011, Great Eastern Japan (Tohoku) Earthquake and Tsunami: Societal Dimensions," Earthquake Engineering Research Institute (EERI) Report (17 August 2011).

The wave did more than damage buildings and take lives, however. The combination of the earthquake and tsunami shut down the back-up cooling systems at the Fukushima Dai-ichi nuclear plants operated by the Tokyo Electric Power Company (TEPCO). This led to fuel meltdowns in three of the six reactors, along with hydrogen explosions and leaks of radioactive materials into the air and water. At its height, the number of evacuees reached 300,000. It is possible that up to 80,000 people will not be able to return to their homes in the foreseeable future.³ The town of Futaba in Fukushima prefecture, which hosts the Fukushima Dai-ichi reactors, has posted on its website regular updates of the local accumulated doses of radiation. One area of the town has absorbed more than 170 millisieverts (mSv) of radiation to date. To put this in context, the International Atomic Energy Agency has set 50 mSv per year as the maximum exposure level for nuclear-power workers under normal circumstances. Towns like Futaba and Tomioka, which are located within 12 miles of the stricken plants, once bustled with tens of thousands of residents. They are now ghost towns, populated only by a handful who refuse to leave animals and property untended.⁴

The disaster continues to reverberate far beyond Japan's borders. In Germany and Italy, decision makers decided to stop using nuclear power despite the high economic costs that will accompany this transition.⁵ Switzerland has ceased to plan for the construction of new nuclear plants, and its last existing plant will go offline in the mid-2030s. Brazil delayed by a year and a half its plans to purchase four new nuclear power plants.⁶ Even China, which for years has aggressively pursued nuclear power as an indigenous source of energy, has put a temporary hold on the construction of nuclear power plants. In the United States, the Nuclear Regulatory Commission (NRC) has put in place a number of new regulations and recommendations that, in time, may force older plants to close due to the costs of retrofitting.⁷ Around the world, observers now question claims about an ongoing "nuclear renaissance"⁸ and have begun to challenge safety-standard assurances about the handling of nuclear waste.

Citizens, meanwhile, have begun to act differently. Previously, scholars had argued that everyday citizens in Japan are comparatively passive politically,

3. See a photo essay of the 16-mile exclusion zone by Kosuke Okahara at <http://lens.blogs.nytimes.com/2012/09/25/fragments-of-fukushima/>.

4. Akiko Fujita, "Japan's Nuclear Exclusion Zone Shows Few Signs of Life," *ABC News* (6 February 2012), and Nathalie-Kyoko Stucky, "The Buddha of Fukushima's Forbidden Zone: A Photo Essay," *Japan Subculture Research Center* (15 January 2012).

5. Daniel P. Aldrich, "Nuclear Power's Future in Japan and Abroad: The Fukushima Accident in Social and Political Perspective," *ParisTech Review* (25 August 2011).

6. *Wall Street Journal* (8 February 2012).

7. At the same time, the NRC has voted 4-1 to allow the private utility Southern Co. to construct new plants in Georgia (*Reuters*, 9 February 2012).

8. Michael Hiltzik, "A Nuclear Renaissance in U.S. was Unlikely Even before Japan Disaster," *Los Angeles Times* (23 March 2011).

although “social capital may be rising due to the widespread growth of volunteer organizations triggered by new NGO laws.”⁹ The accident has changed opinions on nuclear power from a general—if gradually eroding—consensus about the need for nuclear power to sizable opposition. The 3/11 disaster also has altered the ways citizens across Japan interact with government officials, petition for policy change, support referenda on nuclear power, and collect their own data for analysis and distribution. As with past disasters, such as the 1995 Kobe earthquake, the nuclear accident of 3/11 has mobilized new volunteers and prompted many people to discuss openly the need for greater popular influence on policy, the role of citizens in government, and the need for a more inclusive national institutional framework.¹⁰

History of Japanese State–Civil Society Interactions over Nuclear Power

Japanese citizens often talk about a *kaku areugi*, or nuclear allergy, a cultural aversion to atomic weapons that has helped Japan maintain a nuclear weapons-free environment despite the technical and financial means to acquire atomic bombs.¹¹ The bombs used by the United States at Hiroshima and Nagasaki in 1945 have created acute awareness of the dangers of nuclear technology. This, in turn, has created a puzzle in the minds of many observers: How is it that the only nation to experience firsthand the horrors of nuclear weapons could create the world’s most advanced, closed-fuel-cycle commercial nuclear power program (complete with fast breeder reactors, mixed-oxide fuel, and fuel recycling)? France and the United States, in contrast, abandoned most of these experimental nuclear power technologies decades ago due to their expense and unproven nature.

Japan’s drive for nuclear power was the result of neither a bottom-up demand for nuclear power nor a natural inclination to adopt the newest technologies in energy production. Instead, the Japanese state sought to alter the preferences of citizens through a variety of means, ranging from coercion to economic incentives. Rather than waiting for shifts in public opinion to direct public policy, the state has sought to manipulate public opinion and to bring it in line with state goals. The Japanese government, in addition to engaging civil society at large, focused on demographic groups that were most likely to disrupt state plans for reactors: fishermen, farmers, women, and local-government officials.

9. Ken’ichi Ikeda and Sean Richey, *Social Networks and Japanese Democracy: The Beneficial Impact of Interpersonal Communication in East Asia* (London and New York: Routledge, 2011), 59.

10. Daniel P. Aldrich, “The Power of People: Social Capital’s Role in Recovery from the 1995 Kobe Earthquake,” *Natural Hazards* 56 (2010): 595–611.

11. Jacques Hymans, “Veto Players, Nuclear Energy, and Nonproliferation,” *International Security* 36 (2011): 154–89.

The state organized habituation junkets to familiarize potential host community residents with nuclear-power plants elsewhere. It also dangled millions of dollars annually in incentives, and produced televised awards ceremonies for cooperative local-government officials.¹²

The first top-down push on behalf of Japan's nuclear power program came in the early 1950s. The then-member of parliament Yasuhiro Nakasone¹³ had returned from study trips to the United States and elsewhere, where he had begun to lobby domestic and international actors for a Japan-based atomic-energy program. Inspired by President Eisenhower's "Atoms for Peace" approach to the use of nuclear energy,¹⁴ Nakasone proposed that the Agency for Industrial Science and Technology begin research on nuclear power. He later told an interviewer from the *Asahi Shinbun* newspaper that "We had no oil, no gas, and our coal reserves were dwindling. To recover from the defeat in the war and be back on our feet again, securing energy was our country's most urgent task."¹⁵ In March 1954, while the Diet was debating and passing the measure within three days and setting aside 235 million yen in a supplementary budget, a well-publicized fatality caused by United States hydrogen bomb testing occurred. The fishing boat Lucky Dragon No. 5 had passed through a cloud of radioactive fallout from the testing in the Bikini Atoll. Newspapers across Japan covered the contamination and eventual death of the radio operator, Kuboyama Aikichi, from radioactive exposure.¹⁶ The event swayed one in three Japanese citizens to sign petitions against nuclear weapons and nuclear power more broadly. Despite the outcry and a widely publicized petition started in Tokyo's Suginami ward, the state moved forward with its plans.

In the mid-1960s, regional energy monopolies planned to construct their own plants; and the central government agency, MITI,¹⁷ helped them locate potential host communities. The nuclear-power plant operators intended to place pipes in the ocean that would draw water for cooling a reactor and then would release it, several degrees warmer, back into the ocean. Before laying pipe, however, operators were required to obtain written permission from local fishing cooperatives (*gyogyō rōdō kumiai*). Securing the cooperation from a cooperative proved critical, as its veto

12. Daniel P. Aldrich, *Site Fights: Divisive Facilities and Civil Society in Japan and the West* (Ithaca and London: Cornell University Press, 2008).

13. Nakasone was initially a member of the Democratic Party, which merged in the mid-1950s to become the LDP; he became Prime Minister in 1982. The LDP, as it has been labeled, dominated Japanese politics for more than five decades after its formation. The LDP has only recently faced serious opposition from the Democratic Party of Japan.

14. Eisenhower delivered his first speech promoting the peaceful use of nuclear power in late 1953.

15. Takafumi Yoshida, "Yasuhiro Nakasone: Learn Lessons from Fukushima Crisis and Continue to Promote Nuclear Energy," *Asahi Shinbun* [Asahi Newspaper] 23 May 2011.

16. Martin Dusinger and Daniel P. Aldrich, "Hatoko Comes Home: Civil Society and Nuclear Power in Japan," *Journal of Asian Studies* 70 (August 2011): 686–87.

17. MITI, the Ministry for International Trade and Industry (*Tsūshō sangyō shō*), has since 2001 become the Ministry of Economy, Trade, and Industry, *Keizai sangyō shō*, or METI.

power could derail expensive siting attempts. In fact, many fishing cooperatives across Japan have stalled or ended nuclear-power plant siting attempts.¹⁸ Recognizing that communities with stronger fishing communities could mobilize against nuclear power, pro-nuclear advocates in industry and government have sought to identify areas with weaker or weakening local fishing cooperatives.¹⁹ The placement of reactors along Japan's coasts—including the Fukushima Dai-ichi complex near the Fukushima prefecture towns of Futaba and Ohkuma—was determined not solely on technocratic criteria, such as distance to cooling water, presence of aseismic bedrock, or population density. The utilities also considered the levels of social cohesion and the mobilization potential in possible host communities. Areas where community groups, such as farmers and fishermen, could better coordinate their resistance to nuclear plants were avoided, while areas with weaker social ties were targeted.²⁰

Meanwhile, the international oil shocks of the early 1970s reinforced the government's interest in atomic energy. As the price of oil increased dramatically, Japanese government sought to overcome resistance to the development of nuclear-power plants through a number of different policy instruments. It had already expropriated land and dispatched police in struggles with citizen groups over controversial facilities such as airports and dams, but the government had been reluctant to use such heavy-handed methods to promote nuclear power.²¹ Predicting backlash from the citizenry should the state either exercise eminent domain on behalf of nuclear developers or regularly arrest anti-nuclear leaders, the government has adopted softer policy instruments and employed side payments.

At first, the government used financial incentives only in a few host communities, such as Tōkaimura; but the practice was institutionalized in the early 1970s in the form of the *Dengen Sanpō*, or Three Power Source Development Laws. Because of the policy, many depopulating towns that were targeted by industry and the state as potential host communities envisioned nuclear power as a way of saving their often impoverished communities. The Japanese government increased the amount of money available to such host communities and enlarged the range of projects to which government funds could be applied.²² Some communities used the money to construct soccer stadiums and parks and

18. S. Hayden Lesbirel, *NIMBY Politics in Japan: Energy Siting and the Management of Environmental Conflict* (Ithaca and London: Cornell University Press, 1999).

19. *Nihon Genshiryoku Sangyō Kaigi* [Japan Atomic Industrial Forum] (Tokyo: *Nihon Genshiryoku Sangyō Kaigi* Vol. 14 No. 10): 26.

20. Daniel P. Aldrich, "Location, Location, Location: Selecting Sites for Controversial Facilities," *Singapore Economic Review* 53 (2008): 145–72.

21. Aldrich, *Site Fights*.

22. Daniel P. Aldrich, "The Limits of Flexible and Adaptive Institutions: The Japanese Government's Role in Nuclear Power Plant Siting over the Post War Period," in *Managing Conflict in Facility Siting*, ed. S. Hayden Lesbirel and Daigee Shaw (London: Edward Elgar Publishers, 2005), 111–36.

to refurbish hospitals, while others invested in job-retraining programs and incentive packages for businesses willing to relocate to the area. Many communities that originally had little interest in nuclear power *per se* agreed to host power plants and created what some critics have called a cycle of addiction²³ and a culture of dependence.²⁴

Japan's shaping of civil society to promote nuclear power accords with the government's hands-on approach to its citizens. As scholars have documented, the Japanese government regularly intervenes in citizens' lives, rules people indirectly through the bureaucratic leadership of resident-run communal organizations, and thereby guides society's decision-making processes from above.²⁵ According to some researchers, an iron triangle of decision making has emerged that excludes Japanese civil society.²⁶ The three legs of the triangle are the central-government bureaucrats based in Kasumigaseki, the Liberal Democratic Party (LDP) politicians in Nagatachō, and the large corporations, such as the TEPCO, that serve Japan's Kanto region. These three groups are tightly connected, partly because of the institutional practice known in Japanese as *amakudari*, or descent from heaven, which occurs when bureaucrats retire from their government posts and accept jobs in the industries that they previously regulated.²⁷

At the same, everyday citizens in Japan have fewer channels through which they can participate in policy making than do citizens in other advanced, industrial democracies. In the words of Mindy Kotler and Ian Hillman, "public opinion has not played as major a role in policy formation in Japan as in other democratic societies."²⁸ In their research on nuclear facilities in North America, Dorothy Nelkin²⁹ and Hugh Gusterson³⁰ have shown that in complex, technocratic areas like nuclear power, insulation from public opinion is even higher. Authorities in France similarly have sought to marginalize civil society and limit its voice heard on nuclear-energy issues.³¹

23. Kōichi Hasegawa, *Constructing Civil Society in Japan: Voices of Environmental Movements* (Melbourne: Trans Pacific Press, 2004).

24. Martin Fackler and Norimitsu Onishi, "In Japan, a Culture that Promotes Nuclear Dependency," *New York Times* (30 May 2011).

25. Susan Pharr, "Targeting an Activist State," in *The State of Civil Society in Japan*, ed. Frank Schwartz and Susan Pharr (London: Cambridge University Press, 2003), 316–36.

26. Keiko Hirata, *Civil Society in Japan: The Growing Role of NGOs in Tokyo's Aid Development Policy* (New York: Palgrave Macmillan, 2002).

27. Richard Colignon and Chikako Usui, *Amakudari: The Hidden Fabric of Japan's Economy* (Ithaca and London: Cornell University Press, 2003).

28. Mindy Kotler and Ian Hillman, "Japanese Energy Security and Changing Global Energy Markets," James Baker Institute for Public Policy (Houston, TX: Center for Energy Studies, Rice University, 2000) <http://www.bakerinstitute.org/programs/energy-forum/publications/energy-studies/japanesenergysecurity.html>.

29. Dorothy Nelkin, *Nuclear Power and Its Critics* (Ithaca, NY: Cornell University Press, 1971).

30. Hugh Gusterson, "How Not to Construct a Radioactive Waste Incinerator," *Science, Technology, and Human Values* 25 (2000): 332–51.

31. Gabrielle Hecht, *The Radiance of France* (Cambridge, MA: MIT Press, 2009).

Since the 1950s, whenever citizens have been involved in the decisions about atomic power, participation has been through tightly controlled channels, such as public hearings where only pre-approved questions can be asked. Perhaps due to the formal and informal restrictions on their participation, anti-nuclear groups have formed slowly, growing from primarily local opposition efforts in the 1960s and '70s, to regional protests in the '80s, and finally to national level opposition in the late 1980s. One of the most active umbrella organizations today, the Citizen's Nuclear Information Center (CNIC), was formed in 1975 and rose to prominence in the 1990s as a source of information for anti-nuclear groups across the country.³² Since the 1970s, campaigns by anti-nuclear groups like CNIC, along with well-publicized accidents and disasters, have altered public perception of atomic energy and increased the popularity and reach of citizens' movements.

Changes in Public Opinion

While many Japanese residents may have felt uneasy about nuclear power because of memories of Hiroshima and Nagasaki, surveys conducted by the Management and Coordination Agency in Japan (known as the *Sōmuchō*) have shown that between 1968 and 1976 most Japanese wanted the nation to continue building nuclear power plants. By the late 1980s, this high level of support has weakened partly because of accidents such as Three Mile Island, Chernobyl, and, most recently, the meltdowns at the Fukushima Dai-ichi plants.

Nuclear accidents have functioned in Japan as focal points, which Thomas Birkland defines an event that "can be reasonably defined as harmful or revealing the possibility of potentially greater future harms, has harms that are concentrated in a particular geographical area or community of interest, and that is known to policy makers and the public simultaneously."³³ The 1979 Three Mile Island meltdown in Pennsylvania and the 1986 Chernobyl meltdown in the Ukraine served focused world opinion on nuclear power. Unlike earlier, smaller-scale atomic accidents that had been covered by the media, these two accidents enhanced the credibility of anti-nuclear groups and created many new allies. Kōichi Hasegawa has argued that after Chernobyl "anti nuclear movements spread like wildfire" throughout Japan.³⁴ The disaster at Chernobyl also changed the composition of nuclear groups. Women—often concerned about the health of their children—increasingly led new anti-nuclear groups in towns and cities with and without nuclear-power plants.

32. The CNIC was founded by Jinzaburo Takagi, a nuclear chemist, and remains based in Tokyo.

33. Thomas Birkland, "The *Exxon Valdez* Oil Spill as Focusing Event: Politics, Policy, and Symbols," Prepared for Presentation at the Meeting of the American Studies Association, Washington DC (October 1997).

34. Hasegawa, *Constructing Civil Society in Japan*, 136.

Table 1
Japanese Polls: “What Should be Done about the Future of Nuclear Power?”

	Maintain				
	Increase	status quo	Decrease*	Abolish*	Unknown
December 2005	55.1	20.2	14.7	2.3	7.7
October 2009	59.6	18.8	14.6	1.6	5.4
4 April 2011	10	46	29	12	3
18 April 2011	5	51	30	11	3
18 April 2011	4.2	48.5	33.3	10.5	3.5
16 May 2011	4	34	44	15	3
9 June 2011	4	41	36	16	3
3 July 2011	2	29	46	19	4
5 August 2011	5	49	32	13	1
28 October 2011	2	23	42	24	9

*The Prime Minister’s Office surveys have been recoded into the categories of “decrease” and “abolish” to match the wording of the later newspaper surveys.

Sources: December 2005 and October 2009 public opinion data from Prime Minister’s Cabinet Office surveys; 4 April 2011 from *Yomiuri Shinbun* (Yomiuri Newspaper); 18 April and 28 October 2011 data from NHK poll; 18 April, 16 May, 9 June 2011 from Asahi Newspaper; 3 July 2011 data from Yomiuri Newspaper; and 5 August 2011 data from *Soka gakkai* poll.

In most democracies, the construction of new nuclear-power plants declined dramatically after these large-scale nuclear accidents. According to some scholars, the Three Mile Island accident reduced the probability of building new nuclear plants by 75 percent. The more dramatic Chernobyl accident reduced the probability of building new plants by 90 percent relative to the pre-1986 period. Given the scale of the Fukushima accident, it is likely that construction will decline 80 percent in the short term (3–5 years).³⁵

Fukushima has measurably altered Japanese public opinion on nuclear power. Table 1 above provides the results of a series of surveys conducted between 2005 and late 2011, and shows changes in the way Japanese citizens envision nuclear power. Even though the polls were sponsored by different groups, pollsters used similar questions (and sometimes exactly the same question), which allows us to see how public opinion has shifted. I have recoded the questions in the Prime Minister’s Office surveys into the categories of “decrease” and “abolish” to match the wording of the later newspaper surveys. (The Prime Minister’s Office had used as options “end its use in the future” and “end immediately.”) Each survey polled more than 1,200 respondents, which gives us confidence that the surveys capture

35. Matthew Fuhrmann, “Splitting Atoms: Why Do Countries Build Nuclear Power Plants?,” *International Interactions* 38 (2012): 1–28.

the feelings of much of society. More than half of the respondents in 2005 and nearly two-thirds in 2009 believed Japan should increase its number of nuclear power plants. By October 2011 (roughly a half year after the Fukushima accident), the percentage of respondents who believed that Japan should increase the number of its nuclear power had dropped to 2 percent.

The percentage supporting the *status quo*, meanwhile, has fluctuated between about 20 percent and 50 percent since the disaster, but when interpreting these figures, it is important to remember “the *status quo*” following the accident was a complete freeze on plant construction. There are groups, such as the *Keidanren* (Japan Business Federation), that favor further plant construction because (they argue) Japan otherwise cannot produce sufficient electricity for industry and home use.³⁶

Another shift has been in the proportion of people who want Japan to end its engagement with atomic energy. The percentage of respondents who favor a complete end to the use of nuclear power has increased more than tenfold, from 2 percent in the mid-2000s to almost 25 percent in October 2011. *The Asahi* Newspaper reported that 41 percent of those polled in a telephone survey either opposed atomic energy generally or wanted the production of nuclear power to be reduced. This is a striking increase from 28 percent in a similar poll in 2007.³⁷

Responses by political leaders abroad did little to reduce widespread worry about the accident. Robert Alvarez, a former senior policy adviser at the U.S. Department of Energy was quoted as saying, “I’d get my butt on an airplane and get out of Japan.”³⁸ Internal emails from NRC members released via Freedom of Information Act requests show that the Operations Center at the NRC in Washington closely followed news from Fukushima but was frustrated by the lack of details, and that many at the Operations Center commented on technical problems with some of TEPCO’s proposed and attempted cooling solutions for the damaged reactors.³⁹

Like the 1995 Kobe earthquake before it, the 2011 Tohoku disaster created new pools of volunteers who streamed into the region. According to the Japan National Council of Social Welfare, roughly half a million people traveled to Iwate, Miyagi, and Fukushima prefectures between March 11 and June 26 to help locals deal with the disaster.⁴⁰ This, admittedly, is less than half the number of

36. See *Asahi Shinbun* [Asahi Newspaper], 28 July 2012.

37. Suvendrini Kakuchi, “Civil Society Gaining Ground Following Quake,” *Inter-Press Service* (21 April 2011).

38. Jeffrey Kluger, “Fear Goes Nuclear,” *Time Magazine* (28 March 2011).

39. The released NRC emails are available at <http://pbadupws.nrc.gov/docs/ML1117/ML11175A275.pdf>.

40. Kosuke So and Koji Kise, “Volunteers Wanted More than Ever for Disaster Areas,” *Asahi Shinbun* [Asahi Newspaper] 14 July 2011.

volunteers who appeared during the aftermath of the 1995 Great Hanshin Earthquake.⁴¹ Several reasons explain why the number of volunteers in 2011 was smaller. First, potential volunteers may have stayed away because the Tohoku area is remote from Japan's metropolises. Second, the 1995 Kobe earthquake damaged roads in and around Kobe, but had little impact on the roads farther from the center. The 3/11 tsunami, in contrast, damaged national transportation arteries and cut off access to the area. Many potential volunteers wishing to travel to Tohoku may have simply been unable to find a clear path to the area. Finally, due to the scarcity of gasoline, many volunteers in 2011 who intended to drive in buses or cars were unable to find fuel.

New Forms of Activism

Civil society—which I define as the organized sector between government institutions and the market⁴²—includes formal and informal organizations, networks, clubs, and associations. Japan has long been considered a laggard when compared with other advanced industrial democracies in terms of the strength of its voluntary sector.⁴³ According to data from the Johns Hopkins Global Civil Society Index, the capacity, impact, and amount of voluntarism in Japan at the beginning of the twenty-first century fell below the levels in economically similar countries (such as the United States, the Netherlands, Ireland) and also below levels found in some developing countries (such as Tanzania and Uganda) (see Table 2).⁴⁴

The Fukushima calamity, however, transformed many everyday citizens into activists and has motivated residents to challenge official narratives by government representatives and utility public-relations experts. These new activists have reacted to Japan's national energy plan and, also, to their absence from the decision-making processes regarding energy. The government's response to the Fukushima event, along with anger about the lack of transparency, has brought tens of thousands of participants to rallies. Only a handful of protests over the past six decades have been of comparable size (see Table 3). The largest protests over the

41. Based on data available at <http://www.saigaivc.com>.

42. See Robert Pekkanen, *Japan's Dual Civil Society: Members Without Advocates* (Palo Alto, CA: Stanford University Press, 2006).

43. Frank Schwartz, "What is Civil Society?," in *The State of Civil Society in Japan*, ed. Schwartz and Pharr, 23–41.

44. Defining capacity as "the size of the sector, and the effort or activity it mobilizes," sustainability as "the ability of the civil society sector to sustain itself over time—legally, financially, and socially," and impact as "the contribution the civil society sector makes to social, economic, and political life," the Johns Hopkins Global Civil Society Index has sought to create an objective way of comparing the strength of voluntary sectors around the world. See the project's website at <http://ccss.jhu.edu/> for additional details.

Table 2
Johns Hopkins Global Civil Society Index Rankings (data from 2004)

	Capacity	Sustainability	Impact	Total
The Netherlands	79	54	89	74
Norway	55	82	59	65
United States	76	54	54	61
United Kingdom	66	60	50	58
Israel	70	42	50	54
Belgium	65	45	60	57
Ireland	64	45	52	54
France	56	46	44	49
Finland	48	42	50	47
Germany	47	45	47	46
Spain	54	37	30	40
Tanzania	45	32	38	39
Uganda	44	37	30	37
Japan	38	34	35	36
South Korea	32	38	36	35

Source: Chapter 2 in Lester M. Salamon, S. Wojciech Sokolowski and Associates, *Global Civil Society: Dimensions of the Nonprofit Sector, Volume Two* (Bloomfield, CT: Kumarian Press, 2004) (chart downloadable at http://ccss.jhu.edu/wp-content/uploads/downloads/2011/12/Civil-Society-Index_FINAL_11.15.2011.pdf).

past six decades include the ANPO protests (the acronym is for the U.S.–Japan Security Treaty) against the ratification of the security treaty between Japan and the United States in the 1960s, and the protests in the mid-1990s against the rape of a 12-year-old Okinawan schoolgirl by three U.S. Marines. Following the Fukushima meltdowns an activist told a reporter, “Thousands of people are joining our protests against nuclear power these past few weeks after the disaster. That is a huge change from the past when our activism was struggling for public attention.”⁴⁵

The earliest mobilizations included medium-sized rallies, such as the two-day Nuclear Free World conferences in Yokohama in January 2012, with more than 12,000 participants, and smaller events, such as the occupying tents on property of the Ministry of Economy, Trade, and Industry (METI) in Kasumigaseki in September 2011. (The Tokyo police left the occupiers alone despite an eviction notice that the police served in early 2012.)⁴⁶ Anti-nuclear groups, including the

45. Kakuchi, “Civil Society Gaining Ground.”

46. Eisuke Sasaki, “METI Protestors Ignore Official Eviction Notice,” *Asahi Shinbun* (28 January 2012).

Table 3
Large-Scale Protests in Japan

Protest name/issue	Issue	Maximum size of protest
ANPO	Ratification of the treaty of mutual cooperation and security between the United States and Japan in 1960	400,000+
Okinawan Base	Kidnapping and rape of 12-year-old girl by US marines in September 1995	80,000+
Iraq War	US invasion of Iraq and Japan's participation in the War in 2003	5,000+
Anti-Nuclear Protests	Tohoku earthquake triggered Fukushima Dai-ichi meltdowns in 2011	80,000+

Sources: ANPO: Mari Yamamoto, *Grassroots Pacifism in Post-War Japan* (New York: Psychology Press, 2004); Wesley Sasaki-Uemura, *Organizing the Spontaneous: Citizen Protest in Postwar Japan* (Honolulu: University of Hawaii Press, 2001).

Okinawan Base: David Allen and Chiyomi Sumida, "Thousands Rally against Futenma Plan," *Stars and Stripes* (27 April 2010); Takashi Yamazaki, "Global Military Deployment, Urban Protest, and the Framing of Discontent: The Case of Okinawa, Japan," presented at International Political Science Association World Congress Santiago, Chile (2009).

Iraq War: *Japan Today* "Thousands March against War in Tokyo" (20 January 2003).

Anti-Nuclear Protests: *The Economist* (24 September 2011), *Washington Post* (17 July 2012).

CNIC, Green Action, Japan Congress against Atomic and Hydrogen Bombs, Nuclear Power Sayonara Network, and the National Network of Parents to Protect Children from Radiation, have mobilized citizens. During the past few months, the protests against the government's nuclear power policies have not been single, isolated events. Instead, large numbers of protestors have repeatedly gathered in Yoyogi Park, in front of the Prime Minister's home, and in front of the National Parliament to make their voices heard. Since July 2012, many of these protests have drawn more than 80,000 participants.⁴⁷ Few, if any, of the past protest movements produced near-weekly rallies of this size.

In addition, a number of anti-nuclear groups have organized petition drives and have sought referenda against nuclear power. Five million citizens (out of a total of approximately 126 million) have signed a petition asking the government to shut down all Japanese nuclear plants permanently.⁴⁸ An Osaka-based group has filed for a referendum on nuclear power and gathered signatures from more than

47. See *Bloomberg News* (17 July 2012). The organizers have claimed that more than 170,000 people attended, while police estimates put the numbers closer to 80,000.

48. Steve Herman, "Anti-Nuclear Campaign in Japan Moves Forward, Acknowledges Struggles," *Voice of America* (8 February 2012).

one-fiftieth of the roughly 2.6 million voters in the city.⁴⁹ Other groups in Tokyo and Shizuoka have sought approval from local assemblies to hold nuclear referenda.⁵⁰ In Japan, referenda legally have no binding power; but past referenda, such as the one used in Maki-village in Niigata prefecture in the mid-1990s, have not only stopped the siting attempt but conveyed strong anti-nuclear messages for others seeking to end siting processes in their communities.⁵¹ Along with local-level referenda, some groups have pushed for an advisory-style national referendum on nuclear power, similar to the one held in Sweden in the 1980s.⁵²

Perhaps in response to the public outcry, some political leaders (including mayors, governors, and national Diet members) have begun to question the wisdom of nuclear power. In Tokyo's Setagaya Ward, for example, Mayor Nobuto Hosaka campaigned for and won office in April 2011 on an anti-nuclear power platform. Arguing for the need for an "energy democracy," Hosaka endorsed the selection by residents of the supplier of their power needs and the accelerated the use of alternative renewable energy sources.⁵³ Similarly, Ehime Prefectural governor Tokihiro Nakamura announced that he no longer trusted the verbal reassurances and informal safety agreements between local officials and the central government. He proposed that the Minister of Trade and Industry and three other cabinet-level ministers sign a safety pledge guaranteeing the safety of citizens against future nuclear contamination. (Nakamura's prefecture hosts three nuclear reactors of the Ikata complex).⁵⁴ Consumers of electricity who live far from the plants also have demanded change, and mayors in Kobe, Osaka, and Kyoto have asked their regional electrical monopoly, Kansai Electric Power Company, to replace nuclear power with alternative sources of energy.⁵⁵

Many citizens, meanwhile, have participated in nation-wide science campaigns. Many believe that data on radiation exposure have been released slowly and with little explanation. Others have complained that the government and public utilities deliberately withhold critical information and suppress relevant data in order to minimize public alarm. In response, citizens across Japan have created a

49. Yoko Kubota, "Japan Group Seeks Local Referendum on Nuclear Power," *Reuters* (14 February 2012), and *Mainichi Shinbun* (14 February 2012).

50. *Reuters* (14 February 2012); recent reports in January 2013 say that these referenda have failed to move forward.

51. Aldrich, "Limits of Flexible and Adaptive Institutions." Sixty percent of the voters in Maki-village in Niigata Prefecture voted against nuclear power in their 1996 referendum. The local mayor, using the vote as a guide, granted the remaining land, which was necessary for completion of the siting process, to members of the anti-nuclear group to use as they wish.

52. See <http://kokumintohyo.com>.

53. George Nishiyama, "Anti-Nuclear Tokyo Mayor Challenges Big Utilities," *Wall Street Journal* (6 February 2012).

54. Risa Maeda, "Japan Governor Wants Nuclear Safety Pledge in Writing," *Reuters* (2 February 2012).

55. *Reuters* (27 February 2012).

commons-based online project known as SafeCast.⁵⁶ The project encourages citizens to use their own radiation-measuring devices, such as portable Geiger counters made from modified smartphones and personal computers, along with more standard dosimeters to measure levels of radioactivity and to post the data directly on the Internet forum. So far, more than 4,700,000 pieces of data have appeared online in a mash-up with the Google map platform. Local governments have asked the online group to assist them in measuring radiation levels in their own schools and facilities.⁵⁷

Finally, although scholars today debate about whether citizens in Japan privatize protest⁵⁸ and avoid direct conflict with political authorities,⁵⁹ the disaster ignited a public backlash against bureaucrats and authorities. The anger may be well grounded, as the government has not made it easy for survivors of the tsunami and victims of radiation exposure to recover and rebuild. To receive reimbursement from the government, claimants must complete a 56-page form with an accompanying 156-page manual, and provide receipts and other documentation.⁶⁰ Many residents (and not only the local survivors) feel that the government has failed to be sufficiently flexible and open when responding to citizen concerns. Some residents have taped their own expressions of anger during confrontations with government authorities and then posted the recordings on YouTube.⁶¹ These new methods of expressing political displeasure may shift the way Japanese civil society becomes involved in governmental decision making.

Conclusion

Japan has arrived at a crossroads with regard to its energy policy. Politicians and regulators are uncertain whether to continue pursuing nuclear power as a primary source of energy. The government has ordered two reactors in Ohi to be restarted, and has allowed reactors under construction to be completed. Yet previous Industry Minister Yukio Edano has publicly advocated abandoning nuclear energy because “Japan is not fit to hold the risk of nuclear power plants,”⁶² and previous Prime Minister Yoshihiko Noda conceded that Japan faces an “extremely difficult challenge” in deciding how to respond to the many unanswered questions with the current, vague policy. Under the newly elected LDP prime minister Shinzō Abe, the government has advocated for a restart of

56. <http://blog.safecast.org>.

57. See *Japan Times* (18 July 2012).

58. Susan Pharr, *Losing Face: Status Politics in Japan* (Berkeley: University of California Press, 1990).

59. Susan Tomita, “The Consequences of Belonging: Conflict Management Techniques among Japanese Americans,” *Journal of Elder Abuse and Neglect* 9.3 (1998): 41–68.

60. Ben Lewis, “The Legal Aftershocks of Fukushima,” *The Asian Lawyer* (26 January 2012).

61. See <http://www.youtube.com/watch?v=rVuGwc9dlhQ> for an example of this phenomenon.

62. *Associated Press* (29 September 2012).

Japan's reactors but left many technical and social details unresolved. Further, the chairman of the newly created Nuclear Regulation Authority, Shunichi Tanaka, has proposed that his five-member regulatory commission, with a staff of 500 and a budget of U.S.\$600 million, not allow currently idled plants to restart until 2013 at the earliest.⁶³ Yet, these ongoing debates among technical experts and elite politicians may be missing a larger lesson from the Fukushima meltdown: the apparent transformation of civil society.

Having seen the tragic costs of the nuclear policy started by Prime Minister Nakasone and central-government bureaucrats more than five decades ago, many of Japan's citizens now wish to participate in policy making. Government officials continue to try to control the policy-making process through gate keeping, agenda-setting, and manipulation of public opinion. But Fukushima has created a situation in which citizens—after being told for decades that accidents were impossible and hearing the “safety myth” proclaimed by politicians, engineers, and public relations experts—largely distrust their leaders. Some politicians seem to have heard the angry voices of the broader population. The then Prime Minister Kan, for example, publicly announced on 13 July 2011 that he intended to phase out nuclear power completely. But he soon backtracked and said that the public statement expressed a “personal view” and not the view of the government.⁶⁴ Since leaving office, Kan has criticized the “nuclear village” responsible for Japan's energy policy and has urged politicians to abandon the technology.⁶⁵ The government's current policy confusion results from its desire to meet the demands of a mobilized, anti-nuclear civil society yet respect the power and influence of the pro-atomic industrial sector.

Voices within civil society are, perhaps for the first time in modern Japanese history, penetrating the insulated nuclear village and prompting a reconsideration of nuclear-power policy among the country's elite. But many citizens remain skeptical of their own government. Data from the 2012 Edelman Trust Barometer suggest the degree to which Japanese residents have lost their trust in government spokespeople. The level of trust in civil servants fell from a high of 63 percent before the 3/11 disaster to 8 percent afterwards.⁶⁶ Japanese people no longer feel they can rely on the information that they receive from the state and, as we have seen, have begun to generate and analyze their own data. This loss of belief in their own government may become a serious problem, because citizens who withdraw from the public sphere out of frustration or a lack of sense of efficacy may reduce the nations' ability to work collectively.

63. Mari Yamaguchi, “Japan Nuke Chief Hints No Restarts Until Next Year,” *The World* (11 October 2012).

64. *Asahi Shinbun* [Asahi Newspaper], 15 July 2011.

65. *New York Times* (28 May 2012).

66. Data at <http://trust.edelman.com/trusts/path-forward/japan-trust/>.

As the nation confronts a host of problems—a rising national debt, the possibility of a downgrade of its national credit rating, a four-decade period required for decontamination of the Fukushima reactors, a lack of sustainable industries in damaged areas of Tohoku, and the uncertainty about TEPCO's future—the Japanese people are seeking new roles in local and national politics. They no longer passively accept information or directives from the state. We are witnessing a renaissance in civil society and a corresponding surge in engagement from non-state actors and non-governmental organizations. During the process of post-disaster recovery, social networks and civil society have proven to be critical engines for progress.⁶⁷ Civic engagement, trust in other citizens and political leaders, and a belief in the need to work cooperatively are necessary for successful state-polity relations. We can only hope that Japanese citizens will continue to push for a greater voice and role in decision making in the field of energy and beyond.

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67. Daniel P. Aldrich, *Building Resilience: Social Capital in Post-Disaster Recovery* (Chicago: University of Chicago Press, 2012).