

What is Required for a New Society and Politics: The Potential of

Japanese Civil Society □□ 新しい社会と政治のために何が必要か—市民社会の可能性

Iida Tetsunari

Translated by John Junkerman

Japan stands at a major crossroads.

The crisis that began on March 11, 2011 at the Tokyo Electric Power Company (TEPCO) Fukushima Dai-ichi Nuclear Power Plant made the fundamental transformation of Japanese society and politics unavoidable, and it also provides the context that pushes that transformation ahead.

Even before 3.11, Japan was in a state of collapse. One of the major causes of this was certainly the deterioration of the framework of political parties, the bureaucracy, and business that has prevailed since the Meiji era and throughout the postwar, and this breakdown led to the catastrophic accident in Fukushima. Faced with this catastrophe, many people concluded that this social and political deterioration had to be remedied and Japan's energy and nuclear power policies had to be fundamentally changed. We are witnessing a once-in-a-century opportunity where such change is possible.

At the same time, more than 18 months have passed since 3.11, and the "nuclear village" is regaining its footing while politics hurtles along toward epochal failure. We are beginning to hear voices of despair: "Even after an accident on that scale, nothing changes?"

Is it possible to shift this despair concerning politics into the energy for reform? What is required for a new society and politics? How can we empower civil society to propose and implement new policies? I would like to address these questions.

The Historical Inevitability of the Fukushima Accident

The accident at TEPCO's Fukushima nuclear power plant was clearly caused by the Great East Japan Earthquake of March 11, but it was not a chance occurrence. It is more aptly called a historical inevitability. Even if *that* accident didn't happen on *that* day at *that* power plant, it was unfortunately just a matter of time before some catastrophic accident occurred at some nuclear power plant.

The Breakdown of Governance of Nuclear Power

As the Diet committee that investigated the accident pointed out, the accident was a structural man-made disaster brought about by the organizational and personnel deterioration both at the power company and in the national government. This problem has not been remedied in the slightest, to date.

The committee concluded that “In the relationship between successive regulatory authorities and TEPCO, a reversal of the roles of the regulating and regulated parties occurred, and the regulatory authorities became captive to the energy companies. As a result, the functions of oversight and direction of the safety of nuclear power broke down.” (Summary version, page 12)

Even from the perspective of my limited experience, the collapse went far beyond the rather tame condition suggested by the term “regulatory capture.” Japan’s nuclear safety regime has no ability to develop its own regulations; the basic framework for safety standards is literally a carbon copy of those developed overseas by organizations such as the American Society of Mechanical Engineers (ASME). Further, the concerned parties ignored and evaded new developments in these safety standards overseas, displaying what can only be called a total absence of ability and sense of responsibility. There is little evidence that this situation will be remedied by the newly created

Nuclear Regulation Authority.

With the power companies it was not simply a matter of deterioration, but of active perpetration. Let me quote from the report of the Diet investigation committee: “Though they exerted strong influence over energy policy and nuclear power regulation, management evaded responsibility by transferring it to government officials.... Employing differentials in understanding of nuclear technology as a weapon, the Federation of Electrical Power Companies intervened to try to eviscerate the regulations.... It was not the risk of damaging the health of people in the vicinity... but the shutting down of operating reactors and the possibility of legal suits that were treated as business risks.... The stance of the TEPCO management team raises doubts as to whether they were qualified as operators who handle nuclear power.” In other words, the power company itself invited the disaster by gutting regulations, sabotaged safety measures, and displayed neither the will nor the serious effort to protect the safety of people in the vicinity of the plant.

In addition to the structural-organizational deterioration that afflicted the power company and the government entities directly responsible for the accident, there were many enveloping layers of deterioration in Japanese society at large. These are the elements that have come to be referred to as the “nuclear village”—the organizations and entities directly and indirectly

involved with nuclear power from the spheres of politics, the bureaucracy, power companies, industry, law, the academy, and mass media that together form a kind of collective body.

Successive Expansions Lead to Collapse

It would be hard to imagine a proper energy policy being produced in a country like this. It is true that Japan was like many other countries that based their growth economies, prior to the oil crisis of 1973, on mass production and mass consumption fueled by uncontrolled use of petroleum. Japan is thought to have done a comparatively good job in limiting the economic impact of that oil crisis.

However, after that time, Japan's policies became increasingly misguided. In many advanced countries after the oil crisis, nuclear energy was spotlighted as a substitute for petroleum, spurred by the American nuclear industry. At the same time, moves toward expanded use of nuclear energy generated widespread social controversy. In some countries, national referendums and parliamentary resolutions limited or prohibited nuclear energy, while in Germany the issue led to the founding of the Green Party.

In Japan as well, there were numerous opposition movements and objections raised against nuclear power, including a legal battle against Shikoku Electric Power's Ikata nuclear plant, but these were stunted and marginalized by the efforts of the power companies and the government-

centered nuclear village to ignore, suppress, and placate the resistance. In this fashion, buttressed by electric power supply legislation introduced after the oil crisis, Japan saw a steady increase in the construction of nuclear plants through the early 1990s.

Japan's energy policy, with nuclear energy at the center, became ever more perverted—the more reality became deadlocked, the more irrational the policy became. The nuclear power specialist Sato Satoshi has likened this to how Imperial Japan brought about its self-destruction by repeatedly expanding the battlefield during the war. "The nuclear village was not limited to nuclear energy, but attempted to expand into the areas of fuel enrichment, recycling, fast breeder reactors, MOX fuel, and nuclear waste treatment, all of which encountered roadblocks. Oversight became steadily cruder—it could no longer cover details of operations, and it retreated into concealment and fabrication," he declares.

Turning a blind eye to these failures, in 2005 the Liberal Democratic Party (LDP)-led government adopted an energy plan that called for nuclear power to provide 30 to 40 percent of Japan's energy beyond 2030; when the Democratic Party of Japan (DPJ) took over, it accelerated the export of nuclear-power technology and in 2010 announced an energy plan that was unchanged from the LDP plan. The nuclear village continued to sound the bugle call to advance. The worst offenses were in the area of the nuclear fuel cycle.

Failure and Fabrication and Perversion in Nuclear Fuel Cycle Policy

The history of nuclear fuel cycle efforts is marked by failures, fabrications, and perverted policy. In the early stages of nuclear energy development, the fast breeder reactor was considered the “dream reactor.” But in reality, it encountered numerous technical obstacles, and it became clear that the system was too complex and difficult to form a part of the energy supply chain; once it became clear that it also wasn’t feasible in a market economy, all other advanced nuclear-energy countries abandoned it more than a decade ago. But in Japan the effort was not terminated, despite a 1995 fire at the Monju experimental fast breeder reactor that demonstrated how development of the technology had hit a roadblock. While the timeline for the fast breeder reactor remained unsettled, plans for the construction and operation of a commercial fuel recycling plant at Rokkasho in Aomori Prefecture proceeded. The purpose of the plant was reoriented from producing fuel for the fast breeder reactor and shifted, by sleight of hand, to the recycling of plutonium for use in light-water reactors, as a means of conserving fuel. Where the obvious step would have been to abandon recycling altogether, a perverted plan to instead expand the use of plutonium fuel was advanced, in order to avoid storing a surplus of plutonium. The government also found itself maintaining the

misplaced priority on nuclear fuel recycling because of promises that had been made to Aomori Prefecture.

Global Warming as an Excuse for Promoting Nuclear Power

Typical of the clusters of contradictions are Japan’s policies to counter global warming. In the early 1990s, when the problem of global warming began to appear on the political agenda, the expansion of nuclear power was reaching a limit due to the cresting of demand and development of the competitive environment. In this context, the nuclear village seized on the argument that nuclear power was a means to counter global warming as a new justification for its expansion. In point of fact, nuclear power did not expand at the pace envisioned by the more ambitious plans (for example, a plan during the Kyoto Conference in 1997 to add twenty reactors by 2010). Instead, cheap coal-fired thermal plants expanded without control; as a result, Japan’s emissions of greenhouse gases increased by 9% before the Kyoto Protocol came into force in 2005 (Japan’s goal was a 6% reduction), and Japan’s global warming policies were a failure. Despite this, the Ministry of Economy, Trade and Industry (METI) and the business world not only showed little enthusiasm for core global warming countermeasures, such as the carbon tax, conservation, and renewable energy, but they actually worked aggressively to crush these alternatives. This left Japan in the grotesque

position of having nuclear power as its central global warming countermeasure, which predictably brought meager results. In the international negotiations, Japan argued that it was “a leader in energy conservation,” appealed for “international equal treatment,” and criticized the Kyoto Protocol as an “unequal treaty,” leading to the embarrassment of a country withdrawing from its commitments to an international agreement that bears the name of its revered ancient capital.

If Things Don't Change Now, Then When?

Broadening our view to the larger society, we see that what was once trumpeted as Japan As Number One is no longer in evidence. Falling behind in the IT revolution and economic globalization, left in the dust by Apple and Google and Facebook—the American corporations leading the IT charge—Japan has also lost the dominance it once had in high-tech manufacturing to the Samsungs et al. of Korea, Taiwan, and China. Japan as the maker-of-things has lost its sense of direction and stands paralyzed.

The pension system and social insurance, and lifetime employment that sustained people's lives and made postwar Japan into a quasi-welfare state are breaking down on all fronts. Of course, the globalization of the economy and other outside forces play a part, but the incident a few years ago of the “vanished pension records”

reflects the responsibility that lies with the functional breakdown of the government and bureaucracy. The national debt has ballooned to one quadrillion yen (approx. US\$ 12 trillion).

Even before 3.11, Japan was facing the general collapse of the government bureaucracy that was built in the Meiji era, as well as the postwar industrial economy-electrical power-political system. The Fukushima accident can be seen as the worst possible manifestation of this general collapse of Japan. If that is so, then isn't this moment a historic, once-in-a-century opportunity to reform Japan?

Politics Heads Toward a Historic Failure

Thus the 3.11 Fukushima accident was a historical inevitability that occurred amidst the overall breakdown of Japan, which has created a once-in-a-century opportunity for change, at least with regard to nuclear power and energy policy. Unfortunately, it appears as if Japanese politics is helpless to take advantage of this opportunity and is headed toward a historic failure.

Let us take a look at the lost opportunities since 3.11.

The Failure to Deal with TEPCO

To begin with, there was the failure to properly deal with TEPCO. After 3.11, as various discussions took place concerning TEPCO's responsibility for paying compensation, the

“Koga Paper” written by METI official Koga Shigeaki attracted a good deal of attention. Koga proposed that TEPCO take responsibility for the accident and be allowed to go bankrupt, which would force shareholders and megabank lenders to share responsibility; any shortfall in compensation funds would be covered by the public through special taxes. It was a very cogent and reasonable proposal.

However, the proposal was countered, for public consumption, by the lie that a TEPCO bankruptcy would lead to power outages, while behind the scenes various parties—METI, which assured TEPCO it would not have to bear responsibility; the Ministry of Finance, which wanted to avoid new taxes; the megabanks, which wanted to avoid a credit freeze; and TEPCO management, which wanted to retain their positions—colluded on a scheme to establish the Nuclear Damage Liability Facilitation Fund. Though clearly insolvent, TEPCO retained its listing on the Tokyo Stock Exchange as a kind of zombie corporation, while the government bonds used for the bailout are treated as “special income” (rather than debt), so the company remains solvent on paper—a form of window-dressing settlement with full government complicity. Meanwhile, the shareholders and megabanks avoid bearing responsibility, while TEPCO’s customers are left with the burden of higher electricity costs. It is an incredibly strange scheme.

At the June 2012 TEPCO shareholders meeting, the infusion of government capital was approved and the company was effectively nationalized, but in fact nothing changed. On the contrary, since the nationalization occurred with the bailout scheme in place, it made it even more difficult to reform the company.



Tepco incoming president Hirose Naomi (right) and outgoing president Nishizawa Toshio president bow after announcing the company’s almost \$10 billion annual loss. May 14, 2012.

There is a need to divide TEPCO into three entities to perform the following functions: post-accident cleanup; damage compensation; and the production and distribution of power to a new market for electrical power (four entities, if production and distribution are severed). Failing to proceed with this kind of clear-cut corporate restructuring and the reform of the electrical power market, and leaving TEPCO to drag on as a single entity zombie corporation, has to be considered the complete loss of a major opportunity for reform.

Missed Opportunity to Reform Nuclear Power and

Energy Administration

A great opportunity to reexamine the system of administering nuclear power and energy is also slipping away. The administrative system refers primarily to the regulation of nuclear power safety and energy policy. With regard to nuclear power safety, the Nuclear Regulation Authority has already been created. However, as indicated by strong public objections to the staffing of the agency, it is extremely doubtful that the organization was established on the basis of serious introspection over the meltdown of the Fukushima reactors. I was a member of the committee that discussed new directions for the regulation of nuclear power, but the staffing of the new agency was carried out without any regard for the carefully considered recommendations of the committee.



Members of the media and Tokyo Electric Power Co. (Tepco) employees look at the No. 4 reactor building (rear), amidst tsunami damage, at the company's Fukushima Dai-Ichi nuclear power plant, July 2012. Photo / Tomohiro Ohsumi)

The situation with regard to the administration of energy policy is even more serious. Not a single METI official was called to account for the accident, though by any measure they should bear the greatest responsibility for the nuclear power and energy policies of the past. Instead, METI rebounded as the ministry with jurisdiction over nuclear power and energy policy. METI is stage-managing the debates over restarting nuclear reactors and the future composition of Japan's energy mix. Without reexamining this arrangement, change appears unlikely.

It is still not too late to reform the administrative system that was directly and indirectly responsible for the Fukushima accident, but there is little hope of this under a DPJ regime that has adopted a policy of blind submission to the bureaucracy.

The Failure to Deal with the Fukushima Accident

The cleanup of the ruined reactors in Fukushima, the prevention of radiation exposure to residents, evacuation and decontamination, the disposition of debris—the situation is so overwhelming, we are tempted to avert our gaze, but again it is clearly headed toward failure.

First, the major cause of this failure is that the national government has allowed TEPCO to take the lead. The cleanup of the Fukushima reactors should be under the direct control of the government, creating a framework that employs

more personnel, resources, and expertise, and gathers the best and the brightest from around the world. The underground leakage of contaminated water must be blocked, and the enormous risks—epitomized by the spent-fuel pool at the No. 4 reactor—need to be quickly brought under control.

Second, highest priority needs to be given to health maintenance and prevention of radiation exposure of residents, especially children and mothers, based on precautionary principles, but this is not being done. Radiation monitoring and the tracking of the health status of each individual are inadequate, while depopulation and the influence of radiation exposure are slighted. Information is chaotic and people are isolated, leaving them anxious, but in many cases, social constraints make it difficult for them to discuss their anxiety.

Third, as we've seen in the case of recovery assistance, the performance of official functions, particularly by the central government, has been strikingly inadequate. The diversion of budgeted recovery aid allocations into other programs by bureaucrats in Kasumigaseki doesn't merit discussion, but in many other cases funds have simply been turned over to general contractors and consultants, resulting in marked mismatches, and there is little evidence that the Reconstruction Agency—made up of staff dispatched from other government bureaus—has been effective. There is a pressing need to

improve execution based on properly conducted surveys of the recovery needs.

Failures Surrounding "Zero Nuclear Power"

There has been a series of failures in the political process regarding the "zero nuclear power" policy.

In a policy speech after taking office in September 2011, Prime Minister Yoshihiko Noda committed himself to "aiming for a society that is not dependent on nuclear power." And at an October 2011 meeting of the National Policy Unit, he promised to "define a progressive energy and environmental strategy, based on public sentiment" by the summer of 2012.

In response, a newly formed "fundamental problem" committee within METI's Agency for Natural Resources and Energy began to review the medium- to long-term direction of energy and nuclear power policy, while the nuclear fuel cycle was addressed by a long-term planning council of the Japan Atomic Energy Commission, and global warming countermeasures were taken up by a committee of the Ministry of the Environment.

After half a year of deliberations, the choices of the percentage of Japan's energy needs to be met by nuclear power in the 2030s were narrowed down to the "three alternatives" of 0%, 15%, and 20-25%, which were submitted to public debate. Despite this impoverished range of

“alternatives,” many of the public took the issue seriously and expressed their views in a variety of ways. An unprecedented number of public comments—about 90,000—were submitted; and about 90 percent of these supported the 0% option, a clear expression of the national will. A “deliberative poll,” a methodology used for the first time during this process, detected increased support for the 0% option the more the issue was discussed. Faced with this overwhelming expression of the public will, the government—which had initially seen the 15% option as the likely compromise position—was forced to adopt “zero nuclear power” as its “progressive energy and environmental strategy,” announced on September 14.

However, this was nothing more than a ruse. As long as the timeframe was the indeterminate “decade of the 2030s,” it was not a promise of “zero nuclear power,” but rather a promise with wiggle room, to “mobilize policy resources to make zero nuclear power a possibility.”

Even so, the words “zero nuclear power” caused panic within the nuclear village. The business community, joined by Aomori and Fukui prefectures [where nuclear facilities are highly concentrated], and the US government, along with the French and British governments, pressured the DPJ government, to the extent that those words—“zero nuclear power”—were deleted from the Cabinet resolution the following week. In this “pressure,” one can see evidence of

the wheeling and dealing of the nuclear power bureaucrats.

In this fashion, the “zero nuclear power” option swiftly disappeared from the realm of political decision, and in that moment, the METI bureaucracy and the nuclear village appear to have fully reasserted their authority.

Why Is Japanese Politics Failing?

Why is Japanese politics allowing this historic turning point to slip away? Perhaps we are witnessing the repeat of the foolish, fatal failures Japan suffered during the Pacific War.

What Is Lacking in Japanese Politics

Let’s first analyze the documents regarding “zero nuclear power.” I served on the above-mentioned METI fundamental problem committee charged with exploring medium- to long-term energy policy. It met thirty times over the course of nearly a year, but whether from poor administration or intentionally, the discussion never went beyond exchanges of one-sided arguments by supporters and critics. Likewise, in the long-term planning council under the Japan Atomic Energy Commission, which met during the same time period, the participants were the same familiar faces from before 3.11, and the discussion simply rehashed conventional notions of the nuclear fuel cycle. The political discussions that were based on government documents coming from these committees had the following

five features: A poor grasp of basic realities; an absence of logical argumentation and structure; inadequate or biased scientific judgment; inadequate economic rationality; and normative and ethical shortcomings.

Manipulation by Bureaucrats

That this gaping hole in Japanese politics has been filled, with bold certainty, by government bureaucrats is by now abundantly clear to all. One senses that the DPJ government no longer has the will to resist this state of affairs. For example, the “Problems Facing the Zero Nuclear Power Option” paper that was submitted to the Energy and Environment Council by METI on September 4 was a rebellious document filled with falsehood and fabrication. In any ordinary business or organization, the staff or section that produced such a treasonous document would be immediately disciplined, and it would be unthinkable for it to be submitted to a public forum. This is evidence of how free and rampant the nuclear energy bureaucracy runs.

In the same manner, nuclear power bureaucrats are reported to have worked behind the scenes to get Aomori Prefecture to demand that spent nuclear fuel be removed if reprocessing was halted, to have the US express “concern,” and to have the UK and France threaten to return high-level vitrified radioactive waste.

An Unprincipled Power Game

What remains after all of this is nothing but an unprincipled, irrational power game. The power of numbers, the strength of the political base within the party, the volume of the voice, outside pressure—an array of maneuvers and arm-twisting spun the prime minister’s office around, and the very words “zero nuclear power” disappeared from the scene in the process.

The Changing Civil Society

While these politics were playing out, it seems to me that civil society in Japan entered a new stage.

The Weekly Demonstration at the Prime Minister’s Residence

After the irrational decision of Prime Minister Noda to approve the restart of reactors 3 and 4 at the Ohi Nuclear Power Plant on June 8, alarmed citizens flocked to the weekly demonstrations at the prime minister’s residence that had begun earlier in the year, increasing week by week to a maximum of 200,000 participants. Taking after the Jasmine Revolution that began in Tunisia, these weekly demonstrations have been dubbed the Hydrangea Revolution.

The Friday night demonstrations also represent the will of vast numbers of the public who are unable to participate, and give voice to objections to a politics that is lacking in intelligence and standards. At the same time, they have transformed the political culture of demonstrations in Japan. Prior to 3.11, those who

participated in demonstrations were mobilized by organizations or those considered heretics, but in the Friday demonstrations, families with children, young couples, businessmen and office workers on their way home have participated with the naturalness of attending a festival.

Where is Public Sentiment Headed?

This is an indication of the maturing of Japanese politics and, as with the 90,000 public comments on the choices for Japan's nuclear future, it suggests that attitudes toward politics have shifted in a major way. Social networks and Internet media have become part of the standard equipment of even government meetings since 3.11. Public literacy about energy and nuclear power is at an all time high, making this an excellent opportunity to hold a full public debate on the matter.

This new sector of NPOs and cooperatives, old and new, has grown to the extent that it can no longer be ignored, and—as we saw with the National Network of Parents to Protect Children from Radiation, which forced the reevaluation of exposure standards—it is exerting a strong influence on politics and the government.

Will we be able to link these developments with fundamental reform?

Can We Come into Our Own?

Politics in Japan may be in a historic transition, or

we may be heading toward a historic failure. In the midst of this crossroads, what is required of us in civil society? What can we accomplish?

What It Means to Change Policy

We have to change policy, to change politics. Everyone thinks so. But there are few direct paths, where we can draw up legislation and work to get it passed; where this is possible, as was the case with feed-in tariffs, the road is long and steep. It will be no simple matter to change politics in the direction we desire. Even if it changes, as the public has experienced with the failures of the DPJ, politics that has supposedly undergone change doesn't always fulfill our expectations.

In these cases, it is best to change our perceptions. Are we demanding immediate results? Are we viewing things from a win-or-lose perspective? Politics is not just the laws and systems that have been put down on paper, but the massive system of knowledge and experience and certain shared perceptions that surround it. With the passage of time, it accumulates as reality is changed into history, a process that is sometimes accompanied by emblematic change.

Having this sense that policies build up and shift over time, and having a perspective on how we get involved with these changing policies and bring about change, results in a very different way of seeing things and taking action.

Seeing the Half-Glass of Water

Whether we see a half-glass of water as being half-empty or half-full—policies that have developed over time and are the result of adjusting a variety of interests are never going to be 100 percent of what we are hoping for. Maybe they are only 40 percent, perhaps only 1 percent. If we are looking to score a goal, that’s a “loss,” but if we are looking at the beginning of change, that 1 percent can be appreciated as “the first step toward change.”

And as change begins, that produces a new reality. Civil society needs to be able to stand in that new reality and to consider new policies, with the attitude of a ruling party, in other words with a stance that is able to accept contradictions as it works toward change.

Iida Tetsunari is the executive director of the Institute for Sustainable Energy Policies. He is the author of Hokuo Enerugi Demokurashi (Energy Democracy in Northern Europe) and Enerugi Shinkaron (The Theory of Energy Evolution), and co-author of Ima koso, Enerugi Shifuto (Now is the Time for Energy Shift).

John Junkerman is an American documentary filmmaker and Asia-Pacific Journal associate living in Tokyo, where he is a professor at Waseda University. His film, “Japan’s Peace Constitution,” won the Kinema Junpo and Japan PEN Club best documentary awards. It is available in North America from Icarus Films (<http://icarusfilms.com/>).

*Recommended citation: Iida Tetsunari, “What is Required for a New Society and Politics: The Potential of Japanese Civil Society,” *The Asia-Pacific Journal*, Vol 10, Issue 46, No. 1, November 12, 2012.*

Articles on related subjects

- Lucy Birmingham and David McNeill, Meltdown: On the Front Lines of Japan's 3.11 Disaster (<http://apjff.org/-David-McNeill/3849>)
- Jeff Kingston, Power Politics: Japan’s Resilient Nuclear Village (<http://apjff.org/-Jeff-Kingston/3847>)
- Shoko Yoneyama, Life-world: Beyond Fukushima and Minamata (<http://apjff.org/-Shoko-YONEYAMA/3845>)
- Iwata Wataru, Nadine Ribault and Thierry Ribault, Thyroid Cancer in Fukushima: Science Subverted in the Service of the State (<http://apjff.org/-Iwata-Wataru/3841>)
- Masuda Yoshinobu, From “Black Rain” to “Fukushima”: The Urgency of Internal Exposure Studies (<http://apjff.org/-Masuda-Yoshinobu/3836>)
- Shaun Burnie, Matsumura Akio and Murata Mitsuhei, The Highest Risk: Problems of Radiation at Reactor Unit 4, Fukushima Daiichi (<http://apjff.org/-Murata-Mitsuhei/3742>)
- Aileen Mioko Smith, Post-Fukushima Realities and Japan’s Energy Future

(http://apjff.org/-Aileen_Mioko-Smith/3808)

- Makiko Segawa, After The Media Has Gone: Fukushima, Suicide and the Legacy of 3.11

(<http://apjff.org/-Makiko-Segawa/3752>)

- Timothy S. George, Fukushima in Light of Minamata

(http://apjff.org/-Timothy_S_-George/3715)

- Christine Marran, Contamination: From Minamata to Fukushima

(<http://apjff.org/-Christine-Marran/3526>)

- Matthew Penney, Nuclear Nationalism and Fukushima

(<http://apjff.org/-Matthew-Penney/3712>)

- Fujioka Atsushi, Understanding the Ongoing

Nuclear Disaster in Fukushima: A “Two-Headed Dragon” Descends into the Earth’s Biosphere

(<http://apjff.org/-Fujioka-Atsushi/3599>)

- Kodama Tatsuhiko, Radiation Effects on Health: Protect the Children of Fukushima

(<http://apjff.org/-Kodama-Tatsuhiko/3587>)

- Say-Peace Project and Norimatsu Satoko, Protecting Children Against Radiation: Japanese Citizens Take Radiation Protection into Their Own Hands

(http://apjff.org/-Say_Peace-Project/3549)

- Ishimure Michiko, Reborn from the Earth Scarred by Modernity: Minamata Disease and the Miracle of the Human Desire to Live

(<http://apjff.org/-Ishimure-Michiko/2732>)