"Hooked on Nuclear Power: Japanese State-Local Relations and the Vicious Cycle of Nuclear Dependence"
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This article presents three separate problems with Japan's system of nuclear power, which combined to create the political and policy environment that led to the "abandonment" of Japan's rural citizens. The first is that nuclear power is backed by Japan's "nuclear village," a metaphor for the cooperation between, as Onitsuka describes, "politicians, businessmen, bureaucrats, scholars, and local governments that promote nuclear power generation." This stance did not change after Fukushima. When the Liberal Democratic Party regained power early in 2013, it immediately began pressing to restart Japan's idled reactors. These groups almost uniformly support nuclear power, and dissenting voices were routinely ignored in the past. The Fukushima disaster, however, has given new life to Japan's anti-nuclear movement.

Second, Japan's local governments receive almost all their funds in the form of subsidies from the national government, rather than from such sources as the property tax or sales tax. This means local governments face heavy pressure to strictly conform to whatever policy the national government chooses. Because the pro-nuclear lobby has so much influence in the national government, local governments have been powerless to do anything but actively pursue nuclear power. Any other decision on energy would mean being constricted to an unreasonably small budget.

The third problem is the geographic concentration of nuclear power plants in specific parts of Japan's periphery. This augments the negative impact on these areas when natural disasters strike. For example, the Fukushima coastline has twelve nuclear reactors clustered in two sets of six. This dense grouping of nuclear power plants placed the area in greater risk, which proved disastrous when the March 11 earthquake struck.

In addition to showing how a Fukushima-style disaster could occur, this combination of factors also explains the concept of Japan's "abandoned people." Locals have little political power because policies are so dominated by Tokyo. Onitsuka writes, for instance, that "local residents [of the town of Ōkuma] were completely excluded from the decision to build a nuclear power plant in the area." Even though a few powerful local officials were involved in negotiations, the negotiations were not transparent and these officials often did not hold opinions representative of the majority of local citizens.

Hooked on Nuclear Power: Japanese State-Local Relations and the Vicious Cycle of Nuclear Dependence

Hiroshi Onitsuka

Abstract

This article examines the problems associated with the fact that Japanese nuclear power plants have multiple reactors within one plant and are concentrated in specific regions. It analyzes the situation from international, domestic, and local perspectives, revealing features of Japanese state-local relations.

The crisis of the crippled nuclear power plant Fukushima Daiichi has continued for nine months and will continue for some time to come. One of the reasons that this has been such a protracted crisis is that four nuclear reactors within close proximity of each other were damaged simultaneously, making efforts to repair any one of them extremely difficult. Fukushima Daiichi was equipped with six reactors (operation had been suspended at two of its reactors on March 11, 2011), and the Tokyo Electric Power Company (TEPCO), together with the local government of Futaba Town, where the fifth and sixth reactors are located, had been planning to add two more reactors. Japanese nuclear power plants are characterized by having multiple reactors within one plant, and being concentrated in specific regions. The concentration of plants on the coastline of Fukushima Prefecture (two plants and ten reactors) and the Wakasa Gulf Coast of Fukui Prefecture (four plants and 13 reactors) has earned the two regions the nickname "Genpatsu [nuclear power plant] Ginza."[1] At the site located between Kashiwazaki City and Kariwa Village, Niigata Prefecture, TEPCO has what is, with seven reactors, the world's largest nuclear power plant complex (See Map). This geographic concentration of nuclear reactors significantly increases the probability of a crisis occurring when any of those regions are struck by natural disasters. Given the risks that they present, why do Japanese nuclear power plants have these features?

Signboard of Futaba Town Saying "Nuclear Power: Energy for Bright Future" (*genshiryoku akarui mirai no enerugī*), March 29, 2011.
SOURCE: Nihon engan ryokōki (accessed April 8, 2011).

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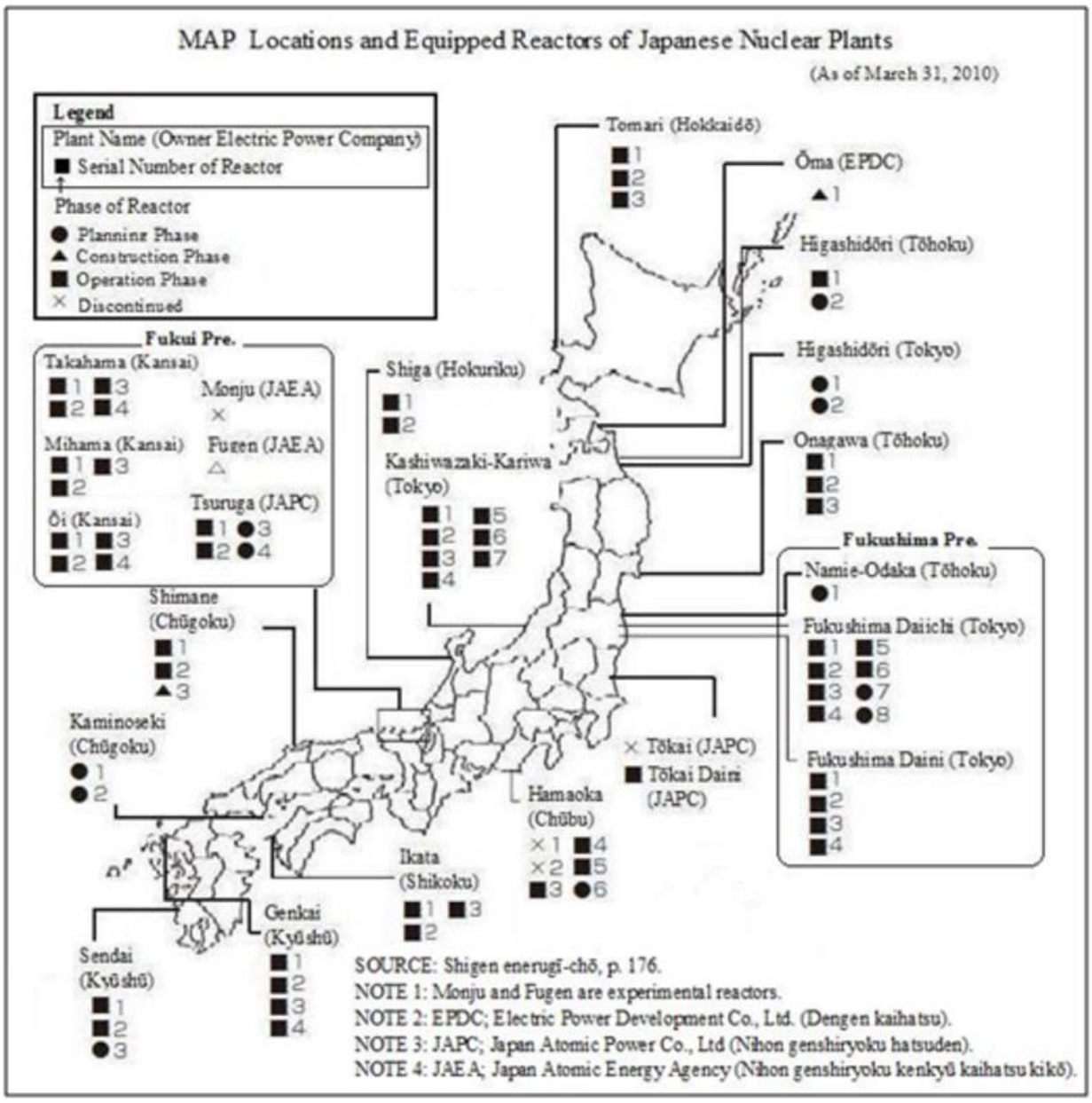

The answer to this question lies in the makeup of Japanese local governments and their relations with the state. Since March 11, the term "nuclear village" (*genshiryoku-mura*) has become well known amongst the Japanese population. This term refers to the powerful and exclusive complex of politicians, businessmen, bureaucrats, scholars, and local governments that promote nuclear power generation. Local governments and their constituents, such as the mayor, officials and assemblypersons, are the final decision-makers in the process of constructing a nuclear power plant. Local residents are essentially excluded from the process. It was not until 1997 that the first local referendum on the construction of a nuclear power plant was squeezed through: the holding of local referenda to decide not only this kind of issue, but any issue that affects local communities, has been very rare in Japan.

Although local governments have played a significant role in the politics and economics of Japan, Anglo-American studies on Japan have paid them little attention. Among developed

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countries, the size of Japanese local government budgets is strikingly large, as is the amount of budget transfer from central government to local governments. The subsidies and grants that come from the central government make up a large proportion of the income of local governments, and many of these come with strings attached (*himotsuki*).[2] It is through this budget transfer that central government controls local governments, and local governments court the patronage of central government. The autonomy of Japanese local governments is compromised by this budget transfer system, which is referred to as "30 percent autonomy" (*san-wari jichi*), as on average 70 percent of the income of a local government is from the central government, which ultimately controls the way in which the funds are spent. In short, the central government and local governments are politically and economically inseparable, meaning that local governments represent an element that cannot be overlooked in any attempt to understand the country's politics and economy. The Japanese government and electric power companies have capitalized on this system in order to construct nuclear power plants, giving rise to a vicious cycle of economic dependency that has ultimately resulted in the present crisis. This paper investigates the reasons for the geographic concentration of nuclear reactors in Fukushima, focusing on its local governments and their relationship with the state.

I. The Dawn of Japanese Nuclear Power

Firstly, let us look at the background of nuclear power development in Japan. The beginning of the Japanese nuclear power industry was political rather than economic. In 1954, a Japanese fishing vessel, *Daigo Fukuryu-maru* (Lucky Dragon # 5), was exposed to nuclear fallout from the US hydrogen bomb test on Bikini Atoll. All crew members suffered radiation sickness and one of the crew died of radiation poisoning. This gave rise to anti-nuclear movements and anti-US sentiment amongst Japanese people. The US government, concerned about this situation, launched "Atoms for Peace," which aimed to overcome Japanese anti-nuclear sentiment by stressing the "peaceful use" of nuclear power. The program sought to reverse the awareness of nuclear power amongst Japanese people, who understood the power of nuclear technology through the experiences of Hiroshima and Nagasaki. The US contacted Shōriki Matsutaro, the owner of the Yomiuri shinbun and the president of the Nippon Television Network Service. Shōriki had political ambitions: he dreamed of leading the way in the development of Japanese nuclear power, and at the same time acquiring fame and power. To promote the "peaceful use of nuclear power" he used his powerful media empire.[3] In 1955, Shōriki was elected to the House of Representatives from a district in Toyama Prefecture, promising to promote nuclear power and a merger of two conservative parties.

Nakasone Yasuhiro, a member of the House of Representatives from Gunma Prefecture and later prime minister, also became interested in nuclear power. He started to promote Japanese nuclear power policies, soliciting the involvement of politicians from the Socialist Party of Japan. At that time, Japanese scientists were skeptical about the "peaceful use" of nuclear power.[4] However, as a result of his efforts, the first budget for nuclear power was included in the national budget in 1954, and the Atomic Energy Basic Law was passed in 1955.[5] The law stipulated that nuclear power policies must be promoted "democratically" and "independently", and that their results be "made public."

Japanese electricity companies became interested in nuclear power generation around that time. In 1955, TEPCO (Tokyo Electric Power Company) established a Nuclear Power Generation Department, and started to examine the future of nuclear power. However, due to the decline in

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the price of oil, the cost of thermal power generation also declined, which slowed the pace of development of nuclear power plants by Japanese companies. Rather than carrying out development independently, Japanese electric power companies cooperated in the building of the first commercial nuclear power plant in Tokai Village, Ibaraki Prefecture in 1960 (it started operation in 1967).[6] During construction planning in 1959, the Science and Technology Agency (*Kagaku gijutsu-chō*), a governmental office for the administration of science and technology policies, calculated the costs that would be incurred in the event of an accident at the Tokai Nuclear Power Plant. The agency estimated that the amount would be twice as large as the Japanese national budget at that time. However, the agency concealed this report, and denied its existence for 40 years.[7] In failing to publicly disclose this information and continuing to promote nuclear power in full awareness of the risks it posed, the government violated the Atomic Energy Law from the very outset.

II. Dreams of Economic Revitalization and Secret Negotiations

Fukushima Daiichi is the second commercial nuclear power plant in Japan. In 1958, the governor of Fukushima Prefecture, Sato Zenichirō, who had been ambitious in promoting the industry of the prefecture, sounded TEPCO out on constructing a nuclear power plant in Fukushima. He ordered the prefectural office to investigate the possibility of nuclear power generation, and himself joined the Japan Atomic Industrial Forum (*Nihon genshiryoku sangyō kaigi*) in 1960. Kimura Morie, a member of the Upper House from Fukushima, was also considering the promotion of industry in Futaba County, which was part of his electoral district. His idea was to invite a nuclear power plant to the county. Sato died in 1964, and Kimura was elected governor, inheriting his nuclear industry policy. Fukushima Prefectural Office kept its eye on Futaba County on the coast of Fukushima, an underdeveloped and sparsely populated district referred to as the "Tibet of Fukushima." Ultimately, the prefectural office selected a site on the border between the towns of Futaba and Ōkuma as the potential construction location, and approached TEPCO, the Tōhoku Electric Power Company, and the Japan Nuclear Industry Conference with this proposal.[8]

The Fukushima Prefectural Office and TEPCO contacted the mayors and assembly members of Ōkuma and Futaba in February 1961. The leaders of the two towns leapt at the proposal, hoping that it would contribute to local economic revitalization. In the case of Ōkuma, the town had fallen into financial distress, a fact which pushed the town to seek the construction of a nuclear power plant. During the mid-1950s, there were serious question marks over the way in which the town's budget was being spent, with budget demand seeming out of proportion compared with actual expenditure. This issue came to the surface when the building of the power plant was being discussed (the audit committee of the town conducted an investigation, but ultimately failed to explain the disparities).[9] The assemblies of Okuma and Futaba decided to invite the construction of a nuclear power plant in the fall of 1961. Anticipating potential public resistance to the construction of the plant, one member of the assembly of Ōkuma proposed a motion for "the establishment of a powerful special committee" for the purposes of preventing information related to the project becoming public knowledge, based on the reasoning that "confidential matters will arise and negotiations will be necessary". The motion carried. In a further move to avoid public opposition, a pledge to TEPCO was submitted and signed by the mayor and 16 assemblypersons, stating that the town (as opposed to the energy companies) would take complete responsibility for acquiring the lands necessary for the site from local residents in an 'amicable' manner.[10] Local residents were completely excluded from the decision to build a

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nuclear power plant in the area, and the process was dominated by a small number of locally influential people; transparency was totally lacking. The prefectural office and TEPCO were equally complicit in concealing the plan, even going to the extent of having young female TEPCO workers accompany engineers on inspections of potential locations so as to give the impression of being simply vacationers on a hiking trip. The prefectural office and TEPCO did not reveal the plan either, and secretly investigated potential locations.[11]

Fukushima Prefecture employed the "Fukushima Prefecture Development Public Corporation (*Fukushima-ken kaihatsu kōsha*) as the agency through which to purchase lands for TEPCO, and the local governments of Futaba and Ōkuma encouraged residents to relocate.[12] Local residents knew nothing of the project to construct a nuclear power plant until it was revealed to them two years after the decision had been made by the towns' assemblies.[13] The corporation, the local governments, and TEPCO negotiated only with land owners and fishery right holders for the purchase of the lands, keeping other residents totally in the dark.[14] The officials of those local governments became agents for the purchase of land. Hashimoto Tetsujirō, a farmer from Ōkuma, stated that prefectural and town officials visited him to ask him to lead a movement to promote the construction of a nuclear power plant. They offered a deal "to ensure Mr. Hashimoto's livelihood." He accepted, and was hired by TEPCO as a full-time worker.[15]

The purchase of land for the building site went smoothly. One of the reasons for this was that 30 percent of the site was owned by Tsutsumi Yasujiro, the president of the real estate corporation Kokudo Keikaku, and was not in use. Another reason lay in the weak ties within the community, together with the firm control that was wielded over the hamlets of the site by the towns administering them. The site covered much of the First District, Ottozawa Hamlet, Ōkuma Town and Hosoya Hamlet, Futaba Town. The First District of Ottozawa was unique in that it was divided into two very distinct parts: the northern part was home to long-established former samurai families who continued to exert a powerful influence in the community, having seized the majority of positions of local authority. The then mayor of Ōkuma, who promoted the plant, was from this district and a member of one of the former samurai families. The Southern part on the other hand was home to tenants and branch families (*bunke*) of main family households (*honke*) in the northern part. Hosoya Hamlet also had a similar feature: many of its residents were newcomers that had arrived from neighboring hamlets or other prefectures after the Meiji Restoration. The agricultural productivity of these communities was low, and those communities were not so much independent from as subject to the administrative town.[16]

Another factor that contributed to the smooth purchase was that people were not yet aware of the danger of nuclear power plants (the Japanese anti-nuclear power movement was not significant until the 1970s). TEPCO completed the purchase of lands for the site by 1968. Yet, according to the investigation report by the Japan Atomic Industrial Forum, about 30 percent of the residents of Ottozawa and Hosoya answered 'no' to the survey question 'Do you trust the statement "Accidents will definitely not occur at a nuclear power plant"?'[17] It was clear that residents had a vague sense of malaise regarding the safety of nuclear power plants.

III. Subsidies, Rivalry among Local Governments and Proliferation of Plants

In order to promote the construction of nuclear power plants, the central government implemented the Three Laws for Electric Power Resource Sites (*dengen sanpō*) in 1974, and Nakasone and Tanaka Kakuei strove hard to get the bill passed. These laws ensure national subsidies for local governments which accept an electric power plant, and were especially

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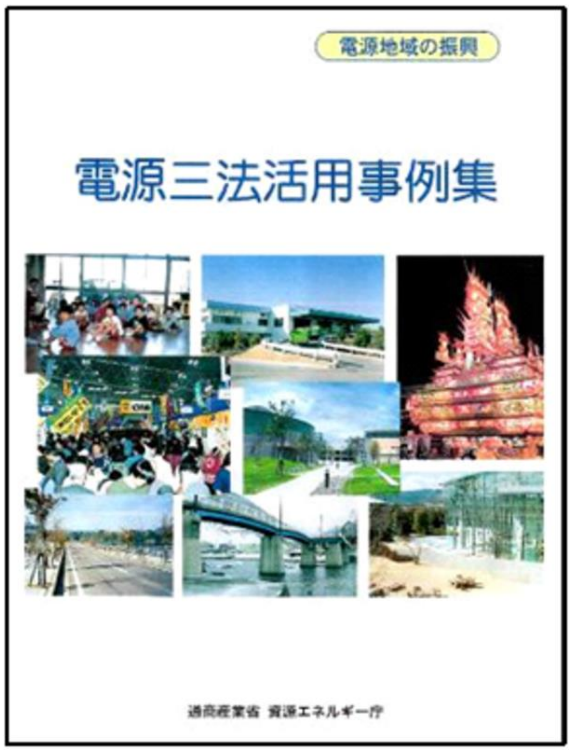
designed to promote the construction of nuclear power plants. With these laws, constructing nuclear power plants became even more connected to rural development than before. The amount of the subsidies was considerable (for detail see below, part IV), and in addition to these subsidies, the local government was also guaranteed receipt of local property taxes for the plant. In the case of Ōkuma, in 1978 the town had a total of 1.92 billion yen in tax revenues, of which income related to the nuclear power plant amounted to 1.7 million yen (88.5 percent). The town became economically dependent on the plant, and by 1979, the size of Ōkuma's budget had soared to 26.6 times the amount in 1965.[18]

The construction of the Fukushima Daiichi plant was initiated by Ōkuma. In order to start receiving local property tax as soon as possible, however, Futaba requested TEPCO to start construction on a reactor immediately and complete it as quickly as possible. As a result, the number five reactor located in Futaba started operation in April 1978, six months before reactor number four, which was located in Ōkuma.[19] Before the construction of the plant, Futaba had enjoyed greater prosperity than Ōkuma. However, after a road from Ōkuma to Fukushima Daiichi was constructed, companies related to the power plant became concentrated in Ōkuma.[20] Since Ōkuma had more reactors than Futaba, its budget revenue was greater than that of Futaba. Residents of Futaba demanded public services at the same level as those of Ōkuma. Ōkuma had a sports center, which had a gym (the size of three basketball courts), a multi-purpose sports ground, a baseball field, a tennis court, a swimming pool, a martial arts *dojo*, and a Japanese archery *dojo*.[21] Futaba built an athletic park in order to respond to its residents' demands of "[We] want it in Futaba too."[22] It is estimated that the total cost of the project (which is yet to be completed) will amount to four or five billion yen. Futaba also built a health care center (cost: 17 billion yen) and a hot spring center (cost: 160 million yen). Backed by abundant subsidies and property tax, the town's budget expanded.[23]



Front Cover of the Guidance Pamphlet of the Three Laws for Electric Power Resource Sites Depicting Their Utilization for Local Revitalization (*dengen sanpō katsuyō jireishū*)
SOURCE: Shigen enerugī-chō, ed., 2000, front cover.

The chain-reaction spread to neighboring towns. Soon after the construction of Fukushima Daiichi began, proposals for the construction of the Fukushima Daini [Number Two] nuclear power plant gained momentum. This plant was to be built in Tomioka and Naraha towns, which are located to the south of Ōkuma and Futaba towns. In November 1967, Tomioka and Naraha established the Alliance for General Development of Southern Futaba (*Nansō-chiku sōgō kaihatsu kisei-kai*), and lobbied the governor to attract enterprises to the region. As the name of the alliance stressed "southern," this alliance was established in rivalry with the northern part of Futaba County, where Ōkuma and Futaba towns were located.[24] As with the local governments

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of Ōkuma and Futaba, the local governments of Tomioka and Naraha had not informed residents of the project. The officials of those local governments examined the site in December 1967, but told residents simply that they were "planning to invite a huge factory" and they did "not know what kind of factory would come." At the end of December, the officials of Tomioka and Naraha gathered headmen of the hamlets of the towns, saying that, "In order to promote the industrialization of this under-developed area, [we] have established the Alliance for General Development of Southern Futaba. To promote this plan, [we] would like to hold a meeting." At that meeting, they revealed the project to invite the construction of a nuclear power plant for the first time. Headmen of the hamlet answered that they had to consult with other residents. However, the next day, officials of the towns visited the headmen, and pressured them with the following comments:

"There is no time because it will soon be the last business day of the year, and the governor has to announce [the construction of a nuclear power plant] as a policy on January 4th. [We] must have the name seals of the hamlet headmen by any means possible. If the hamlet decides against inviting [the plant], [we] will repeal this signing. [We] promise this will happen at any cost."[25]

The local governments, planning to invite a nuclear power plant without public disclosure, forced the project through, completely disregarding the wishes of the residents.

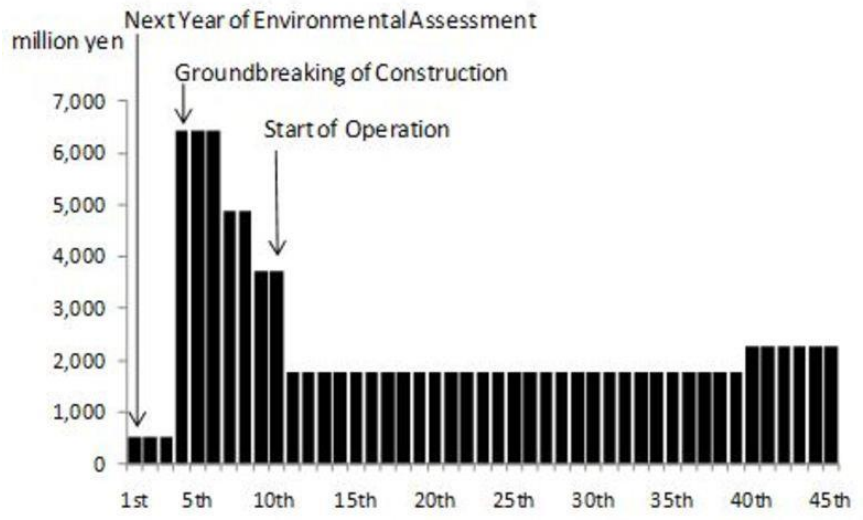
In January 1968, the Fukushima Prefectural Office announced that they had invited a TEPCO nuclear power plant.[26] However, many residents opposed the project, refusing to sell their lands. The governor himself took the lead in pressuring the opposing residents, offering "special sympathy payments" (*tokubetsu hairyokin*) of one hundred million yen to overcome the protest.[27] When the construction was finally decided upon, Naraha and Tomioka competed to be the first to start receiving property tax from the plant by demanding that the initial construction take place in their towns. The construction started in Naraha, a decision which generated a sense of resentment in Tomioka. Just with Ōkuma and Futaba, a fierce rivalry had taken root between these two towns.

IV. Financial Crisis in Local Governments, US-Japan Relations, and Additional Reactors

However, the affluence generated by the subsidies did not last. This was partially due to a unique feature of the Three Laws for Electric Power Resource Sites: *local governments are provided with heavy government subsidies for the first five years after the start of construction, but once the plant begins operation, the amount of the subsidies plummets to a quarter of the initial amount* (see Graph). In addition, the statutory life of the local property tax on a nuclear power plant is defined as 15 years, and the tax revenue are reduced by half from the first year to the fifth year.[28] In short, a local government hosting a nuclear power plant receives a substantial infusion of money only during the period of construction.

Although Futaba Town had rich subsidies, its public finances deteriorated in the 1990s. The town built a large number of facilities, but thei operating costs exhausted its budget. In order to increase its income, the assembly of Futaba invite the construction of two more reactors in 1991 (however, after it was revealed in 2002 that TEPCO had concealed problems that were discovered at Fukushima Daiichi two years earlier, the town withdrew its invitation). Once a community accepts a nuclear power plant, it develops a dependency on it and begins to demand more reactors. Naraha and Tomioka towns also had deteriorating finances after the initial infusion of subsidies: in the case of Tomioka, the town constructed Rifure Tomioka, a health

care center with a swimming pool, hot spring, and accommodations. Its annual operating costs amounted to 170 million yen. Endō Katsuya, the mayor of Tomioka informed the town assembly in 2009 that "[We] have constructed too many facilities, spending a vast amount of money. It is truly an administration-generated bubble."[29] In Japan, this situation is known as "nuclear power plant addiction" (*genpatsu izon-shō*).



Graph amount of annual subsidies provided for a local government which holds a nuclear power plant (model case of a plant with 1,350,000kW output).
Source: Shigen energi-cho, pp.3-4. Calculated by the Agency for Natural Resources and Energy.

US-Japan relations also contributed to the emergence of this situation in the 1990s. In the US-Japan Structural Impediment Initiative, the US demanded that Japan spend ten percent of its GNP on public investment (items that do *not* contribute to the productivity of Japanese industry). The Japanese government committed 430 trillion yen to domestic public investment over the ten-year period starting from 1991. When the US insisted that this level of spending was insufficient, Japan declared in 1994 that it would commit a further 200 trillion yen in spending by 2008. In short, the Japanese government promised to spend 630 trillion yen on the construction of public facilities. The US aim was to confine the influence of the Japanese yen to its domestic market, preventing the devaluation of the US dollar. Together with the necessity of stimulating an economy that was struggling as a result of the recession, this commitment to the US led the Japanese government to try to expand public investment. However, in the name of maintaining the fiscal discipline of the central government, the Japanese government forced prefectural and local governments, rather than the central government, to expand public investment.[30]

Under these circumstances prefectural governments encouraged local governments to expand their budgets. Owing to their abundant income, it was the local governments in areas with nuclear power plants that were targeted by the Fukushima Prefectural Office for budget expansion. Futaba Town officials reported that the prefectural office repeatedly approached the town with projects as it had been overwhelmed by all the projects that had been allocated to it by the central government, saying that they "could not reject them". They were told, "There is a favorable local bond issue. Please take it. The prefecture will take care of you later." The town accepted the proposals. Town officials said, "Expanding on nuclear power will bring subsidies and increased local property taxes. […] Local residents also thought there was money in it, and started demanding more and more [projects]."[31]

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In 2007, the Ministry of Internal Affairs and Communications released the actual ratios of bond-redemption (*jisshitsu kōsai hiritsu*)[32] of all local governments. Futaba Town ranked tenth from the bottom nationwide. In an effort to resolve the town's poor finances, Idogawa Katsutaka, the new mayor of Futaba, cut his salary to virtually nothing in 2008.[33] He also cut projects and expenditures within the town budget. However even these measures were able to contribute little. In response to this situation, Idogawa said, "There are still people who cannot change their attitudes."[34] Finally in June 2007, the assembly of Futaba Town, desperate to obtain revenue, reinstated the invitation of the new plant.

After March 11, 2011, when Futaba and Ōkuma were struck by the magnitude 6 earthquake, the administrative center of Futaba was relocated to Saitama Prefecture. Even then, on April 4, 2011, the mayor of Futaba, together with delegates from the seven local governments of the areas with nuclear power plants, petitioned the prime minister *not* to change the national policy of increasing the number of nuclear power plants.[35] This seemingly baffling response in the wake of natural disaster exposes the reality of Japan's policy on the construction of nuclear power plants: once a town welcomes a nuclear plant, it becomes incapable of existing without it. On April 7, 2011, the same day in which it raised the crisis level of Fukushima Daiichi from 5 to 7, the Japanese government reported that it would raise the amount of subsidies for local governments with nuclear power plants. This statement was not made public through a press conference, but merely appears in print in an official gazette.[36]

V. Conclusion

This article has traced the process that facilitated the construction and proliferation of nuclear power plants in Fukushima through analysis of the structure of national, prefectural and local financial politics: the planning of the projects to construct nuclear power plants was carried out by the prefectural office and local governments by means of secret negotiations with no public disclosure being made to residents until the final stages. Then, once local governments agreed to the construction of a plant, the community developed a dependency on it and became eager to invite the construction of further reactors. These are the reasons for the heavy concentration of Japanese nuclear power plants within a few specific regions, all of them impoverished rural areas. In addition to these domestic factors, US-Japan relations played a significant role in encouraging Japan to invest in nuclear power generation.

The writer Kamata Satoshi has investigated this invitation process, visiting every nuclear power plant in Japan. The reports that he produces from each of these visits mirror the process that we see in Fukushima Daiichi and Daini: negotiations being conducted between the prefectural office and the government with a total lack of public disclosure; the decision to invite plants being made unilaterally by local government or local leaders; local government pressuring opponents into accepting the project; the acquiescence of local leaders and residents bought with promises of money.[37] Yoshioka Hitoshi, the vice-president of Kyūshū University, has pointed out that electric power companies exploit the hierarchical network of local politics, bringing those at the top of this hierarchy such as local and prefectural officials and assemblypersons into their camp before the construction begins.[38] Even in cases where residents have succeeded in rejecting the construction, the central, prefectural, and local governments, as well as the electric power companies employ the tactics of coercion discussed above, making residents' protests extremely difficult.[39] In short, specific circumstances that characterize communities and local governments in Japan (a firmly hierarchical social structure, a lack of transparency, rivalry between

communities, poverty of peripheral areas) make this method of coercion effective. As such, the present crisis arising from the incident at the Fukushima Daiichi nuclear power plant can be seen to be the direct result of deeply-entrenched problems that lie at the root of Japanese local government and state-local relations.

Hiroshi Onitsuka is an independent scholar who specializes in the history of modern Japan, especially local public finance, and in Japanese emigration to Manchuria.

Sources

Arima Tetsuo. 2008. *Genpatsu Shōriki CIA*. Tokyo: Shinchōsha.

Asahi shinbun. *asahi.com*, December 7, 2010.

Fukui shinbun. *Fukui shinbun online*, April 5, 2011.

Kamata Satoshi. 2001. *Genpatsu rettō wo iku*. Tokyo: Shūeisha.

_____. 2011. *Nihon no genpatsu kiken chitai*. Tokyo: Seishisha.

Kaneko Masaru, Takahata Masayuki, and Hagami Tarō. 2008. "Genpatsu no tsugi ha genpatsu" in *Chiiki kirisute: ikite ikenai genjitsu*, ed. Kaneko Masaru and Takahata Masayuki. Tokyo: Iwanami shoten. pp. 95-115.

Ōkuma-cho shi hensan iinkai, ed. 1985. *Ōkuma-chō shi daiikkan tsūshi*. Ōkuma-chō: Ōkuma-chō.

Mainichi shinbun, morning ed.. June 16, 1999.

Miyamoto Kenichi. 2005. *Nihon no chihō jichi: sono rekishi to mirai*. Tokyo: Jichitai kenkyūsha.

Nakajima Hisato. "Fukushima-ken ni genpatsu ga tōrai shita hi: Fukushima Daiichi genshiryoku hatsudensho ricchi katei to chiiki shakai," *Gendai shisō* (June 2011), pp. 190-207.

_____. *Tokyo no genzai kara rekishi=kako wo yomitoku*, link.

Nakasone Yasuhiro. 2004. *Jiseiroku*. Tokyo: Shinchōsha.

Nihon engan ryokōki. Link.

Nihon genshiryoku sangyō kaigi, ed.. 1970. *Genshiryoku hatsudensho to chiiki shakai*: *chiiki chōsa senmon iinkai hōkokusho (kakuron)*. Available online.

Shigen enerugī-chō, ed.. 2000. *Dengen sanpō no katsuyō jireishū*. Tokyo: Dengen chiiki shinkō sentā. Available online.

_____. 2009. *Dengen ricchi seido no gaiyō*. Tokyo: Dengen chiiki shinkō sentā. Available online.

_____. 2010. *Enerugī hakusho*. Tokyo: keizai sangyō-shō.

Supōtsu no sato Futaba annai sentā. http://spo-sato.jp/2006/03/04-040538.php.

Tokyo shinbun. *Tokyo web*, August 17, 2011.

https://doi.org/10.1017/S1557466013025096 Published online by Cambridge University Press

Uzawa Hirofumi and Uchihashi Katsuto. 2009. *Hajimatteiru mirai: atarashii keizaigaku ha kanō ka*. Tokyo: Iwanami shoten.

Yamakawa Mitsuo. "Genpatsu ricchi suishin to chiiki seisaku no tenkai, 2" in *Shōgaku ronshū* 55, no. 3 (1977), ed. Fukushima University. pp. 133-162.

Yoshioka Hitoshi. 1995. "Genshiryoku ricchi funsō no gekika" in *Tsūshi Nihon no kagaku gijutsu Vol. 4*, ed. Nakayama Shigeru, Gotō Kunio, and Yoshioka Hitoshi. 1995. Tokyo: Gakuyō shobō. pp. 157-174.

_____. 1999. *Genshiryoku no shakaishi*. Tokyo: Asahi shinbunsha.

Notes

[1] "Ginza" is a bustling amusement district of Tokyo. The word is also used to describe an area that has a concentration of a specific thing.

[2] Miyamoto, pp. 238-239.

[3] Arima Tetsuo found documents concerning this US psychological strategy targeted at the Japanese public in the Library of the Congress, and investigated its relation with Shōriki.

[4] Yoshioka 1999, pp. 64-65.

[5] For Nakasone's efforts for the promotion of the Japanese nuclear industry, see his autobiography, *Jiseiroku* (Nakasone).

[6] Nakajima 2011, p. 192.

[7] Mainichi shinbun, morning ed., June 16, 1999, p. 3.

[8] For the process of inviting the plant at the prefectural level, see Nakajima 2011, p. 193.

[9] Ōkuma-chō shi hensan iinkai, ed., pp. 410-411.

[10] For the process of inviting the plant at the local level, see Yamakawa, p. 153.

[11] Nakajima 2011, p. 194.

[12] Ibid., pp. 197-198.

[13] Kamata 2011, p. 103.

[14] Nakajima 2011, p. 200.

[15] Ibid., p. 105.

[16] For the process of the land purchase, see ibid., pp. 196-197, p. 200.

[17] Ibid., pp. 203-204. Calculated by Nakajima based on the survey by the Japan Atomic Industrial Forum, p. 30, Table 24.

[18] Kamata 2011, pp. 113-114.

[19] Nakajima 2011, p. 206.

[20] Kaneko et al., p. 107.

[21] Supōtsu no sato Futaba annai sentā.

[22] Kaneko et al., p. 108.

[23] Ibid., p. 101.

[24] Nakajima Hisato, "Nakiotoshi de Fukushima Daini genpatsu kensetsu dōi wo semaru Tomioka-chō tōkyoku" in *Tokyo no genzai kara rekishi=kako wo yomitoku*, June 2, 2011, (accessed August 19, 2011).

[25] Kamata 2011, p. 94.

[26] Ibid., p. 92.

[27] Yamakawa, p. 159.

[28] Kaneko et al., pp. 104-106.

[29] Asahi shinbun, "Fuwaku no genpatsu ginza (4): Kyogaku no shikin seigyo dekizu," *asahi.com*, December 7, 2010 (accessed August 19, 2011).

[30] Uzawa and Uchihashi, pp. 41-45.

[31] Kaneko et al., .p. 108.

[32] The ratio of the amount of bond-redemption against the amount of income. It is employed as an indicator of the financial circumstances of a local government.

[33] Asahi shinbun, "Fuwaku no genpatsu ginza (4): Kyogaku no shikin seigyo dekizu," *asahi.com*, December 7, 2010 (accessed August 19, 2011).

[34] Kaneko et al., p. 110.

[35] Fukui shinbun, "Genpatsu zōsetsu minaoshi jikishōsō," *Fukui shinbun online*, April 5, 2011 (accessed August 19, 2011).

[36] Tokyo shinbun, "Kōfukin de genpatsu atooshi: reberu 7 yokujitsu 'Shinsetsu ha zogaku,'" *Tokyo Web*, August 17, 2011 (accessed August 20, 2011). This information was not uncovered until it was reported by the Tokyo shinbun on August 17, 2011.

[37] See Kamata 2001; Kamata 2011.

[38] Yoshioka, pp. 160-162.

[39] See Kamata 2001, Chapter 3, Chapter 15. They report the cases of Kaminoseki and Maki towns, respectively.