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Problems and Challenges for “Voluntary Evacuees” with regard to the Fukushima Radiation Disaster*

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(Disaster Law Panel at the Annual Meeting of the American “Law and Society” Association) (June 2016) (at Marriott New Orleans)

I. Foreword: The Need for an Inclusive Disaster Recovery from the Perspective of Housing and Welfare

At the end of April 2016, more than 160 thousand people are still

* This paper was given at the symposium named “Disaster, Climate Change, and Vulnerability” organized by Prof. Lisa Sun for the Annual Meeting of the American “Law and Society” Association on June 2nd, 2016 at Marriott New Orleans. I appreciate her extraordinary kindness to invite me to this important panel by American leading scholars of Disaster Law and to give detailed comments to my draft. My thanks also go to other panelists including Professors Rob Verchick, Lloyd Cohen, Mitch Crusto, Fiona Haines, and Michalyn Steele for their helpful comments.

evacuees five years after the tragedy of the East Japan Earthquake, and almost 100 thousand people are suffering the effects of radiation due to the Fukushima TEPCO [Tokyo Electric Power Co.] explosions. The radiation and tsunami disaster recovery after the 2011 East Japan Earthquake should be examined from the perspective of housing and welfare. In particular, comparing the Fukushima disaster to Chernobyl and the Three Mile Island cases reveals systemic issue that must be addressed. Housing and welfare law covers, in addition to housing, questions of livelihood, consumer activities, amenities, education, health care, safety, and natural environment etc. An “inclusive disaster recovery’ policy, should focus on the welfare of vulnerable people, such as the elderly, children and pregnant women¹.



(Huge Radioactive Waste at Iitate Village)

Regrettably, regarding disaster recovery following the East Japan Earthquake, we conclude as follows: First, welfare compensation is still marginalized despite continuous requests, while public expenditure has been wasted on public works. This is a similar pattern as that observed after the Kobe Earthquake in the mid- 1990s. Second, similar

¹ For similar arguments in American disaster law, see, e.g., DANIEL FARBER ET AL., *DISASTER LAW AND POLICY* (2nd ed.) (Walters Kluwer, 2010) 391- [(3rd ed.) (Walters Kluwer, 2015)451-]; ROBERT VERCHICK, *FACING CATASTROPHE: ENVIRONMENTAL ACTION FOR A POST- KATRINA WORLD* (Harvard U.P., 2010) 128.

systemic problems have been seen in radiation disaster recovery at Fukushima with regard to huge decontamination public works. For example, 650 billion yen had been spent for the decontamination work in Iitate village by the spring of 2014 and ironically not many of its 6000 villagers want to return to their home surrounded by innumerable black bags of radioactive waste produced by the decontamination cleanup. Furthermore, when contrasted with the post-Chernobyl housing policy, support provided for evacuees to avoid radiation health effects is limited and diminishing due to the dominant, but problematic, return policy. Broader compensation based on sufferers' welfare is required to remedy these structural failures.

Limited public assistance and a basic lack of human rights consciousness for housing and welfare provide the background to fundamental issues in Japan's housing policy, which is why I am working in the field. In health care, we have had a communitarian, comprehensive health care financial and legal regime, and the basic human right of access to health care has been protected for a long time: the basic structure for this was developed during the 1940s and completed in the early 1960s. We are far ahead of the United States in this sphere, even though there are serious budgetary issues in a rapidly aging society. However, Japanese housing policy is puzzlingly market-oriented and thus public assistance for housing and welfare, particularly in the case of disaster recovery, is even more restricted than in the U.S., and is the most limited among developed nations².

II. Uniqueness and Problems for the Fukushima Radiation Evacuation Policy

A. The Process of Fukushima Evacuation Policy

First of all, I'll explain the meaning of 'voluntary evacuees'. Shortly

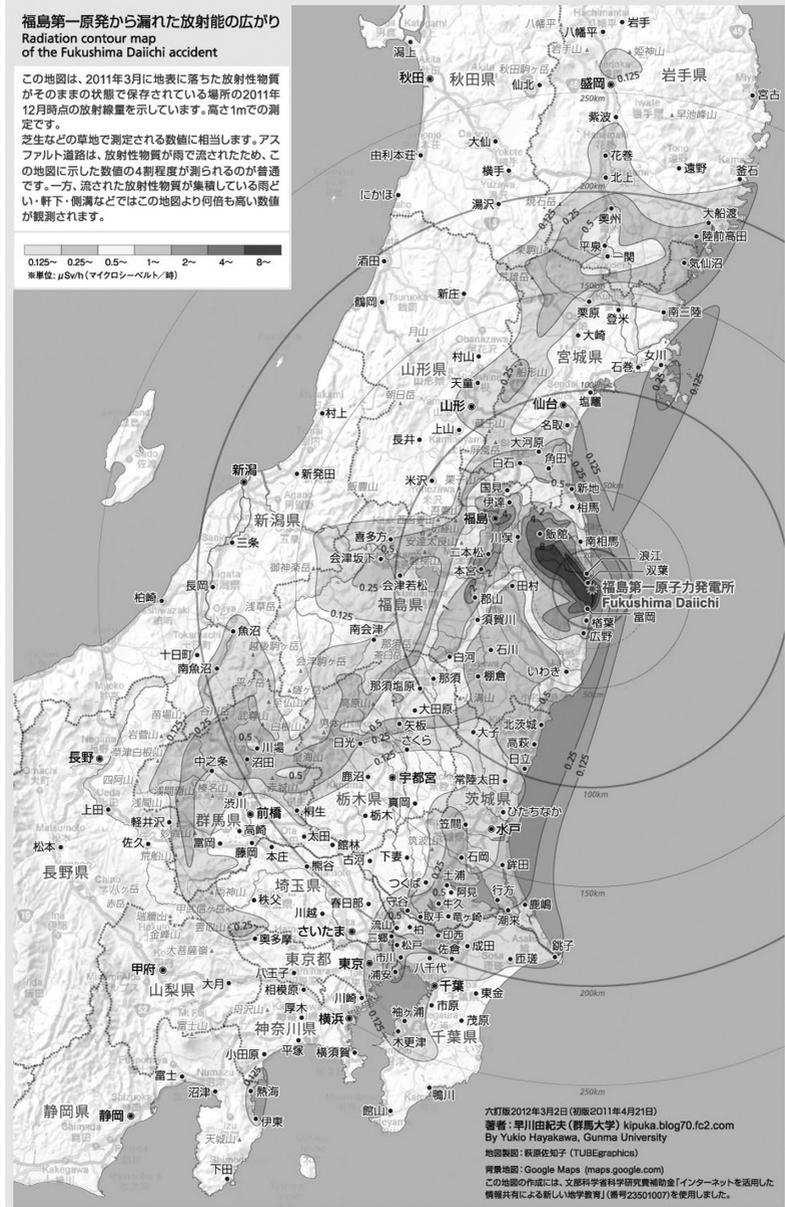
² See, e.g., MARY COMERIO, *DISASTER HITS HOME: NEW POLICY FOR URBAN HOUSING RECOVERY* (U. California P., 1998) 15-, 23-.

after the East Japan Earthquake on March 11th, 2011, reactors No.1, 3, and 4 at the Fukushima Daiichi TEPCO nuclear power plant exploded over the course of March 12th through 15th 2011. In response, the first evacuation order for those within a radius of 3km was issued on March 11th, and was expanded to 20km on March 12th, while those within a 30km radius was asked to stay indoor from the 15th.

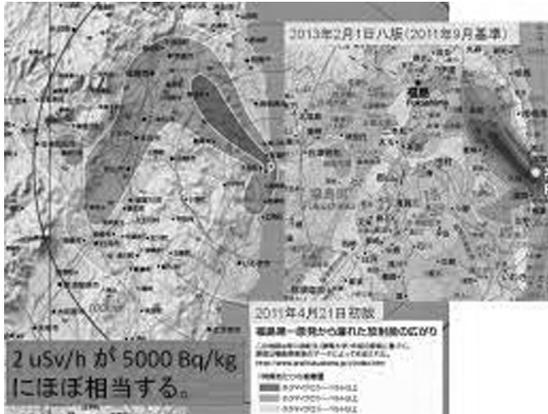
On April 22nd, 2011, there was the first readjustment of evacuation zones, which designated the following zones: (1) the ‘risky evacuation zone’ within 20km; (2) the ‘would-be evacuation zone’ outside of 20km; and (3) the ‘evacuation prepared zone’ within 30km. In number (2) category areas experiencing over 20mSv, residents were ordered to evacuate within one month. Radiation spread northwest after the explosions, and broad areas in that direction, most prominently Iitate Village already mentioned, located 40km northwest from the site, actually faced high radiation and were designated as this type of evacuation zone. It took time for local residents to get correct information about radiation: for example, SPEEDI information was concealed by top government officials fearing panic³, and many evacuees didn’t know which way to move. Consequently, some, including people from Futaba Town, moved into high radiation areas such as Namie Town and Iitate Village, thus being exposed to high radiation without taking iodine. Actually, correct information came from overseas.

The second readjustment to the evacuation zone was made one year later, on April 1st, 2012 and the new classification, which is still basically valid, was as follows: (1) the ‘no-return zone’ above 50mSv; (2) the ‘restricted residence zone’ above 20mSv; and (3) the ‘would-be return zone’ under 20mSv, where theoretically the designation can be cancelled and thus be outside of the evacuation zone any minute. Thus, following this taxonomy, areas began to lose the category (3)

³ Former Prime Minister Naoto Kan and his cabinet members themselves didn’t know its existence at first, but they were informed later on March 23rd.



(Radiation Spread from TEPCO) (permitted by Prof. Yukio Hayakawa)



(The radiation map should be compared to the evacuation zone map)
(permitted by Prof. Yukio Hayakawa)

designation after April 2014: for example, Tamura City (April 1st, 2014); Kawauchi Village (October 1st, 2014); Naraha Town (September 5th, 2015); Katsurao Village (June 12th, 2016); South Soma City (July 1st, 2016)⁴. Accordingly, the administrative evacuation zone has been shrinking and will continue to diminish due to decontamination works, governmental officials hope. However, the return process in those areas has been slow and only limited numbers of people, predominantly the elderly, have returned back home. The paucity of public facilities, such as schools, hospitals and shopping centers, is mentioned as a main reason for the delay, putting aside radiation issues⁵.

⁴ For mixed feelings of hesitation of villagers in those areas, see, for example, Martin Fackler, *Forced to Flee Radiation, Fearful Japanese Villagers Are Reluctant to Return*, THE NEW YORK TIMES, April 28th, 2014, A4, A5 [THE INTERNATIONAL NEW YORK TIMES, April 29th, 2014, p.1, 3]. The Japanese government now has decided to prepare for the cancellation of designation even in the category (2) by March, 2017 at the cabinet meeting on June 12th, 2016. See, ASAHI SHIMBUN, June 10th, 2016, p.3 (according to the government's plan, approximately 46 thousand out of 70 thousand evacuees should be returned by March, 2017); June 12th, 2016, p.1, 28.

⁵ For empirical studies of this delayed process, see, MASAFUMI YOKEMOTO ET AL.,



(The Evacuation Zone in Fukushima in October, 2014: (1) is the red zone; (2) is the yellow zone; (3) is the green zone. The green zone will disappear shortly.)

B. Features and Problems of the Japanese Evacuation Standard

In the brief description of the evacuation zone offered above, it is clear that 20mSv per year (3.8 μ Sv per hour) has become the standard for administrative zone-setting, and the evacuation zone has been shrinking particularly after the Abe cabinet declared the “Fukushima Disaster Recovery Speed-Up” plan in December 2013.

However, there are issues regarding the Japanese evacuation policy in terms of comparative law. First, the 20mSv standard is very different from the standard taken after the Chernobyl tragedy in 1986. In the aftermath of the Chernobyl radiation disaster, local residents within areas over 5mSv were obligated to evacuate and those within areas over 1mSv qualified for evacuation. Thus the evacuation zone in

WHY DOES THE NUCLEAR DISASTER RECOVERY BECOME UNEVEN? (GENPATSU SAIGAI WA NAZE HUKINTOU NA HUKKOU WO MOTARASUNOKA) (Minerva Pub. Co., 2015).

the Chernobyl case, which is the only comparable precedent for the Fukushima radiation disaster, was much wider than the Fukushima evacuation zone.

In other words, a conspicuous difference in the post-radiation-disaster housing policy is apparent: in Russia, Belarus, and Ukraine, “evacuation” was the main policy, with people known as “Самосёлы”, the people stayed despite the evacuation orders⁶, while in Fukushima, “stay/return” policy is the principal policy, with limited numbers of people qualifying for evacuation and economic assistance due to mandatory displacement.



(at the Zhdanovichi Children Sanatorium in Belarus)(March, 2014)

Therefore, lots of Fukushima people could do nothing but face radiation, which might cause serious health effects in the near future⁷.

⁶ Of course, we have to admit that the situation of high risk workers called Ликвидаторы was serious and that the aftermath of Chernobyl disaster was not simple. For the best nuanced ethnographical study of Chernobyl sufferers, see, ADRIANA PETRYNA, *LIFE EXPOSED: BIOGRAPHICAL CITIZENS AFTER CHERNOBYL* (Princeton, 2003) (with a new introduction, 2013).

⁷ For the conspicuous difference between Chernobyl and Fukushima cases, see, Kunihiko Yoshida, *Some Suggestions from the Chernobyl Nuclear Disaster Recovery from the Housing/ Welfare Perspectives: Absolute Difference between Chernobyl and Fukushima Daiichi Disasters (Chernobyl Genjitsu Jiko Tyousa*

Of course, in both cases, exposure to radiation early on due to incorrect or concealed information has been observed, and thus health effects could be serious. However, in contrast to the aftermath of Chernobyl, those suffering from thyroid cancer and other medical issues cannot freely talk about their diseases openly in Japan⁸. In that sense, they have been marginalized and oppressed by the rhetoric of ‘normalization’ and related policies.



karano Kyoju-hukushou teki Shisa: Fukushima Daiichi Genpatu Mondai tono Ketteiteki na Soui, 1026 NBL 33~ (2014).

⁸ See, for example, Mizuno Aoki, *Spike in Thyroid Cancer Fuels Fears But Cause Could be Over-Diagnosis*, THE JAPAN TIMES, May 13th, 2016, p.13

Under American standards, a radius of 50 miles (80 km) should have been evacuated. Many major cities in the central band of Fukushima Prefecture, including Fukushima City and Koriyama City, would fall under the American evacuation zone, and millions of people have been exposed to radiation without any evacuation orders or monetary assistance. I still remember vividly how dismayed my American friend was after listening to my answer in June 2011 at a conference in the U.S., when he asked me about the situation in Fukushima by showing me a Wall Street Journal evacuation zone circle under American standards on the Fukushima map⁹. It is well-known that even Anderson Cooper of the CNN gave up reporting the TEPCO explosion and went home shortly after recognizing the seriousness of the radiation. 400 American Navy soldiers who joined the Friendship Rescue Team (Tomodachi Sakusen) without knowing about the radiation have filed a lawsuit against TEPCO. Many of them already suffer from health effects, and some have died, without any financial compensation¹⁰.

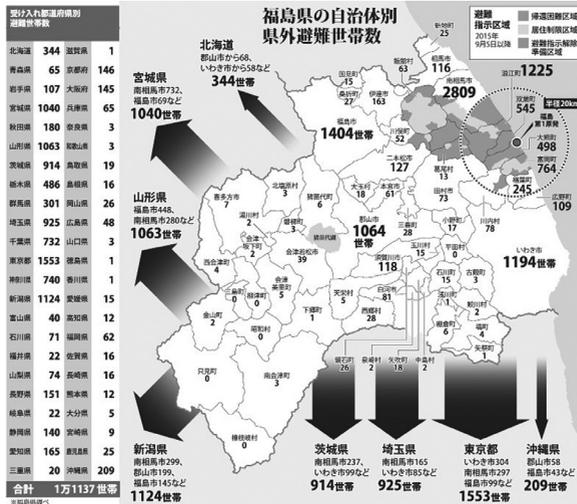
III. Voluntary Evacuees and their Lack of Assistance

A. The Definition of Voluntary Evacuees

The situation of voluntary evacuees is one of the most serious and neglected issues with regard to the nuclear damages statute of 1961. ‘Voluntary evacuees’ are those who live outside the designated evacuation zone. Due to the relatively small size of the evacuation zone

⁹ The very article he showed me was: Yuka Hayashi, *Tokyo Weighing More Evacuations*, THE WALL STREET JOURNAL, June 10th, 2011, A8. The article argued that a further mandatory evacuation was considered at Ryouzen Town at that time and the Japanese evacuation standard was behind the American one.

¹⁰ Masato Tainaka et al, *Former Premier Koizumi Cried to Hear about the Situation of American Navy Soldiers Joining Tomodachi Sakusen after East Japan Earthquake (Koizumi-si Tomodachi Sakusen de Hibaku moto-Beihei ni Namida)*, ASAHI SHIMBUN, May 19th, 2016, p.29.



(Figures of Households moving outside of Fukushima) (Mainichi Shimbun, March 11th, 2016)

in Fukushima, many people outside the designated areas feared for their health, especially pregnant women and children, and decided to evacuate on their own initiative. Some fled shortly after the explosion while others moved after their initial exposure to radiation.

The number of voluntary evacuees has not been officially recognized, but was estimated at 60,000 to 80,000 in 2012, and had decreased to 25,000 (13,000 families) by the end of October, 2015¹¹. In Hokkaido, there were 3,220 in the summer of 2011, down to 2,125 in February 2016. However, few of those in Hokkaido actually returned to Fukushima Prefecture.

Their decision to evacuate can be naturally justified from a comparative law perspective, because the administrative standard of 20mSv for evacuation in Fukushima is much higher than that for the Chernobyl evacuation. We have to recognize that there must have

¹¹ Kousuke Hino et al., *Housing Provision for Voluntary Evacuees will be stopped in a Year*, MAINICHI SHIMBUN, March 11th, 2016.

been many more people who wanted to avoid radiation, but did not evacuate for financial reasons or due to oppressive community power to not leave their hometown and abandon their relatives.

B. Discrepancy between Mandatory Evacuees and Voluntary Evacuees

The big discrepancy in the response towards voluntary evacuees and mandatory evacuees should be emphasized. A Nuclear Damages Conflict Council was organized on April 11th, 2011 under the Ministry of Education and Science to establish rules for compensation (damages of different kinds) that should be paid swiftly by TEPCO. The Council issued intermediary guidelines in August 2011 and then four subsequent amendments between December 2011 and December 2013.

Damages for voluntary evacuees were discussed for several months before the Council issued the first amendment in December 2011. Mr. Seiichi Nakate and Mrs. Takako Shishido, then representatives of Hokkaido Voluntary Evacuees Residential Association, spoke of their suffering to council members on October 20th, 2011¹². At an earlier stage, the civil law scholars on the council, such as Prof. Yoshihisa Nomi, chairperson of the council, and Prof. Tadashi Ohtsuka, were sympathetic to the voluntary evacuees’ situation and positive with regard to their protection, but over the course of discussions, they followed Mr. Shun’ichi Tanaka, now the chairperson of the Nuclear Regulation Authority, in rejecting most of their compensation¹³. The result in the first amendment of December 2011 was: 400,000 yen for

¹² The proceedings of their statements at the 15th commission meeting is available at: http://www.mext.go.jp/b_menu/shingi/chousa/kaihatu/016/gijiroku/1313194.htm.

¹³ For the detail of the council discussion, see, Kunihiko Yoshida, *Housing/Welfare Law and Fukushima Nuclear Radiation Disaster Sufferers: Focusing on Voluntary Evacuees’ Welfare (Kyojuu Hukushi Hougaku to Fukushima Genpatsu Hisaisha Mondai) (Part 1) (Part 2)*, 2239 HANREI JIHOU 3~, esp.11~; 2240 *id.* 3~ (2015).

pregnant women and children per person with TEPCO's voluntary addition of 200,000 (600,000 in total per person) and 80,000 yen for other persons for the year of 2011, and its payment was done by TEPCO in February 2012. The Council added nothing more for voluntary evacuees in the second amendment in March 2012, although following the second amendment, TEPCO added the voluntary payment in December 2012 by 120,000 for pregnant women and children and 40,000 for other persons for the year of 2012 until August 2012. These payments were still far below those provided for the mandatory evacuees, who are granted a minimum of 100,000 per month per person¹⁴.

Given this discrepancy, many lawsuits were filed across Japan, most prominently in Hokkaido, Tokyo, and Kansai, because voluntary evacuees are dispersed from Hokkaido through Okinawa. Notice that the number of voluntary evacuees is increasing due to the recent contraction of the mandatory evacuation zone noted above.

C. Suffering of Voluntary Evacuees



(A Clinical Legal Education Seminar by Attorney Wataru Shimada at the Atsubetsu Employment Facilitation Housing with Voluntary Evacuees) (May 2015)

¹⁴ In the case of 4 family members, for example, 24 million (24,000,000) yen has been provided. On top of this amount of money as pain and suffering, mandatory evacuees can get damages for getting a new residence in their evacuation by the 4th amendment issued in December 2013.



Five years have passed since the explosions at the Fukushima Daiichi Nuclear Power plant, but the welfare of voluntary evacuees is suffering due to the lack of financial assistance. Even though their evacuation is termed voluntary, this is not true. Almost all of them were exposed to high radiation in places like Fukushima City and Koriyama City, and made the decision to evacuate to avoid the health effects of radiation on their children and pregnant wives. In many cases, husbands stayed in Fukushima while their wives and children moved elsewhere¹⁵.

The community of voluntary evacuees in Hokkaido is one of the largest. Many of them live, or used to live, at the Employment Facilitation Housing in Atsubetsu Ward in Sapporo City¹⁶, and I have regularly had meetings with them to listen to their sufferings, problems and challenges. These include, (a) the heavy economic

¹⁵ Professor Robert Verchick describes the similar situation in New Orleans after Hurricane Katrina in terms of gender. See, VERCHICK, *supra* note 1, at 139-141.

¹⁶ There used to be more than 200 households, many of them single families, but the number had decreased to 70 by March 2016 due to administrative intimidation and notice that eviction begins at the end of March, 2017 (ASAHI SHIMBUN (Hokkaido), March 11th, 2016, p.31). The residents there organized a community named the ‘Cherry Blossom’ Association and Ms. Shishido was its first representative.

burdens of two households; (b) difficulties of finding new employment, especially for single women with kids; (c) rare family gatherings and family ruptures leading to divorce; (d) loneliness following the destruction of their tight-knit previous communities, leading to mental distress and even death; (e) accusations of fleeing from former friends and neighbors in Fukushima; (f) troubles and conflicts in their new communities; and (g) health effects due to radiation and PTSD.¹⁷

With the discrepancy between voluntary and mandatory evacuees in the damages guideline set by the Nuclear Damages Conflict Council, the free provision of housing for voluntary movers has been their only exceptional protective measure, although this measure will end in March, 2017 and be replaced by a rental assistance program for the next two years: with support for half of their rent in the first year (2017), and a third in the second year (2018) under stricter eligibility conditions.

In addition, this housing benefit has been exceptionally inflexible. Voluntary evacuees are not allowed to change their housing

¹⁷ For their dismal situation, see, for example, Megan Green, *Reluctant to Speak, Fukushima Moms Admit Ordeal, Fears: Some Evacuees Condemned for Fleeing with Kids from Radiation*, THE JAPAN TIMES, September 30th, 2015, p.3. As for the case of Hokkaido evacuees, see, Kunihiko Yoshida, *Agonies of Voluntary Evacuees in Sapporo and Their Effective Measures: My Proposal for their Damages Based on Move (Sapporo Jishu Hinansha no Kunou to sore eno Taisaku)*, 45 (2) ENVIRONMENT & POLLUTION (KANKYO TO KOUGAI) 62~ (2015).

See also, SEIICHI NAKATE, PROMISE OF YOUR FATHER: LET'S TALK ABOUT THE TRUTH OF THE REAL FUKUSHIMA (CHICHI NO YAKUSOKU) (Mitsui Pub. Co., 2013); AKIKO MORIMATSU, EVACUATION OF MOTHER AND CHILDREN: MEMORIES OF THOUGHTS (BOSHI HINAN: KOKORO NO KISEKI) (Kamogawa Pub. Co., 2013) for stories of voluntary evacuees themselves, and IZUMI YAMAGUCHI, MOTHER EVACUATION: TO OKINAWA BY AVOIDING RADIATION (HINAN MAMA: OKINAWA NI HOUSHANOU WO NOGARETE) (Aurora Freedom Atelier, 2013); CHIA YOSHIDA, REPORTS OF EVACUATION OF MOTHERS AND CHILDREN (RUPO: BOSHI HINAN) (Iwanami Pub. Co., 2016) for their reports.



(With Ms. Shishido [center] in front of her building)

irrespective of their children’s growth, having more children, neighborhood troubles, or inconvenience in terms of education, shopping, and commuting to workplace, even if there are housing units available for them. The logic of government officials is that: once they move out of their original housing, they should be considered as ‘recovered from the disaster’ and therefore ineligible for free temporary housing¹⁸. Thus, voluntary evacuees across Japan have been bullied by local and central government committed to Fukushima Disaster Recovery. Even though they are the most vulnerable parties in this radiation disaster, they are considered ‘obstacles’ in the way of the Resuscitation of Fukushima and largely neglected by governmental officials.

We should add that the budget required for their free housing outside of Fukushima Prefecture is only 8.09 billion yen per year (for their supply-side housing assistance) and rental subsidies for two years

¹⁸ On this unreasonable treatment, see, for example, KOUSUKE HINO, NEGLECT OF VOLUNTARY EVACUEES FROM NUCLEAR EXPLOSION: THE TRUTH 5 YEARS AFTER THE FUKUSHIMA DISASTER (GENPATSU KIMIN) (Mainichi Shimbun Pub. Co., 2016) 72~, 99-100.

from April 2017 will be a mere 2 billion yen (for their demand-side rental assistance)¹⁹, which should be contrasted with the budgetary splurge on public works, including (a) decontamination and the construction of intermediary storage facilities for nuclear waste (2.4 trillion yen), (b) community transfer onto hills (1.6 trillion yen), and (c) the construction of high walls to fend off Tsunamis (2.2 trillion yen)²⁰.

We also have to realize that despite administrative pressure and intimidation to return to Fukushima, most of voluntary evacuees stay outside of Fukushima.

IV. Challenges: What Should be Done?

A. Litigation

What should be done to relieve their desperate situation? Against the backdrop of this unequal treatment between mandatory and voluntary evacuees, lawsuits have already been filed by several groups of voluntary evacuees as a last resort. They can file claims with the Nuclear Damages ADR (Alternative Dispute Resolution) center that opened in September 2011. Results there are more flexible and protective for sufferers than the council guidelines, but ADR protection is still more limited than adjudication.

The Kyoto District Court granted damages of more than 30 million yen from TEPCO to the voluntarily evacuated person and his families in a judgment on February 18th, 2016, and this attracted a lot of attention and a favorable reaction²¹. He ran a local restaurant as the

¹⁹ HINO, *supra* note 18, at 190, 225-226.

²⁰ For this data, see, the ASAHI SHIMBUN, March 11th, 2016, p.2.

²¹ For favorable comments by Professors Masafumi Yokemoto, Ken'ichi Ohshima, and Ryouichi Yoshimura, see, ASAHI SHIMBUN (Hokkaido), February 19th, 2016, p.35. For my detailed analysis of this Kyoto decision, see, Kunihiko Yoshida, *East Japan Big Earthquake, Fukushima Nuclear Plant Accident, and Compensation Challenges for Voluntary Evacuees in terms of Housing Welfare: Focusing on the Recent Kyoto Decision (1) (2)* (Higashshinohon Daishinsai,

president in Koriyama City and after the explosion decided to move to Itoigawa (Niigata Pref.), Kanazawa (Ishikawa Pref.), Kyoto, and finally to Ashiya (Hyogo Pref.) and became melancholic without getting new employment. Compared with a limited number of precedents that admitted nominal pain and suffering for voluntary evacuees who had returned back home²², the award of a considerable amount of monetary damages itself was revolutionary in some sense.



(Attorney Ken'ichi Ido for Kyoto case shortly after the decision; He used to be an outstanding critical judge in the field of nuclear power plant injunction cases)

However, the legal reasoning behind the Kyoto decision has

Fukushima Genpatsu Jiko to Jishuhinansha no Biashou Mondai/Kyojuuhukushi Kadai, 519 LAW & DEMOCRACY (HOU TO MINSHUSHUGI) 33; 520 *id.* 44 (2016).

²² For example, the Tokyo District Court Decision of June 29th, 2015, which is similar to the recent Kyoto decision in terms of legal reasoning, dealt with the case of evacuees from South Soma City to Fukushima City, and dismissed the claim by saying that the 1.84 million yen paid by TEPCO has been enough for their pain and suffering.

The Sendai High Court Decision of January 21st, 2015, on evacuees from Iwaki City to Yokohama City, similarly mentioned that the 0.3 million yen paid by TEPCO was sufficient and dismissed the case. In this case, 1.3 million damages for emotional distress had been requested, but the judges surprisingly expressed that their pain and suffering was less than 40,000 yen.

turned out to be problematic. First, it follows the problematic administrative standard of 20mSv. Second, their notion of voluntary evacuation is very narrow and strict, influenced by the prevalent return policy: they argue that evacuation is temporary in the sense that evacuees should return once radiation drops below 20mSv. Thus financial assistance for relocation and finding new employment has been rejected. Third, they are skeptical about the health effects stemming from radiation below 20mSv, and following the problematic observation of Fukushima Prefectural medical school, they argue that the numbers of children suffering thyroid cancer can be regarded as an effect of over-screening effects, denying a link to radiation.

We have to realize that the comparatively high damages were awarded for mental distress and that the high salaries of the plaintiffs are quite unique to this case. The negative influence of the Kyoto decision in terms of legal principles and reasoning has already begun to seep across the legal sphere and a critical analysis of its effects is urgently required. We have to realize that the Kyoto decision's understanding mirrors the administration's Fukushima recovery policy, neglecting and opposing the right of voluntary evacuees to flee from radiation.

B. The Need for Damages based on their Move

Contrary to the recent bias towards the return policy, the disaster recovery policy of the Children's and Sufferers' Assistance Act of 2012²³ protects "residents' choices whether they stay, move, or return" and guarantees "appropriate financial assistance in accordance with either decision" in Article 2, section 2. Now a move towards damages

²³ The correct full name of this statute is: Law for Assistance of Children and Some Other Local Residents Suffering from Radiation due to the TEPCO Nuclear Power Plant Explosion and for developing related Policies. It was promulgated on June 27th, 2012 as No. 48th statute of 2012.

for voluntary evacuees based on the original liberal principle of this statute is required for genuine Fukushima radiation disaster recovery.

As for various types of damages for voluntary evacuees, prominent scholars such as Professors Takehisa Awaji and Ryouichi Yoshimura, argue that a comprehensive and holistic interpretation regarding livelihoods should be adopted and that the pain and suffering due to its infringement should be broadly recognized²⁴. However, their theoretical framework and notion are too general and ambiguous, even though I applaud their intention of broadening the scope of damages. As discussed, Prof. Ohtsuka, one of the council members, admitted only nominal damages for voluntary evacuees, even though he had also advocated a similar comprehensive notion. Considering that many judges are not sympathetic to voluntary evacuees’ damage, I think we need more a down-to-earth, pragmatic legal scheme for damages.

In this regard, Prof Hanoch Dagan’s analysis of restitutional damages as equity remedies²⁵, based on Prof. Guido Calabresi’s

²⁴ E.g., Takehisa Awaji, *How should We Think about the Legal Doctrine of Damages for Fukushima Nuclear Accident?* (*Fukushima Genpatsu Jiko no Songaibaishou no Houri wo doukangaeruka*), 43 (2) ENVIRONMENT & POLLUTION (KANKYO TO KOUgai) 2~ (2013); do., *The Right to Tranquil Life as Comprehensive Living Interest and Damage* (*Houkatsuteki Seikatsu Rieki tosite no Heion Seikatsuken*), 86 (4) HOURITSU JIHOU 97~ (2014); Ryouichi Yoshimura, *Legal Challenges regarding Fukushima Daiichi Nuclear Damages* (*Fukushima Daiichi Genpatsu Jiko Higai Baishou wo meguru Houteki Kadai*), 86 (2) HOURITSU JIHOU 55~, esp.56-57; Yoshio Shiomi, *The Construction of Damages Principle for Fukushima Nuclear Accidents: Following the Intermediary Guideline etc.* (*Fukushima Genpatsu Baishou no Chuukan Shishin wo humaeta Songaibaishou Houri no Kouchiku*), TAKEHISA AWAJI ET AL., RESEARCH ON FUKUSHIMA NUCLEAR ACCIDENT DAMAGES (FUKUSHIMA JIKO BAISHOU NO KENKYU) (Nihon Hyouron Co., 2015) 106~.

²⁵ HANOCH DAGAN, UNJUST ENRICHMENT: A STUDY OF PRIVATE LAW AND PUBLIC VALUES (Cambridge U.P., 1997) 12~is his harbinger analysis.

taxonomy of property rules and liability rules²⁶, is thought-provoking. Likewise, evacuees, when they decided to move to avoid radiation, should be able to claim various damages to support their new life, including (a) housing and furniture costs, (b) expenditure on getting a new job, (c) educational costs for their kids, and even (d) travel costs to go back and forth for their family gatherings, as specific remedies, in place of 'restitution to the original state' (natural restitution [Naturalherstellung] in German), because new life is its substitute²⁷. This type of legal scheme of damages for evacuees is more concrete, pragmatic, and down-to-earth for their new lives than comprehensive emotional damages. Notice that damages mentioned above are much broader than thrifty actual expenditure. Of course, their pain and suffering due to their mental stress and the forfeiture of their communities can also be requested.

C. The Health Effects of Radiation

The evacuation zone is shrinking due to efforts by the central and local governments based on a biased return policy and splurging on decontamination. Given that they are trying to signal the end of the Fukushima disaster recovery, it is ironic that serious health effects due to radiation are now starting to emerge. For example, the critical health situation among Iitate villagers now living in the Date-East temporary housing was disclosed when I went there in fall of 2015.

As is already much discussed, an extraordinary increase in thyroid cancer patients has been found through the prefectural health checks of limited children in Fukushima and this ominous fact has been taken

²⁶ Guido Calabresi & Douglas Melamed, *Property Rule, Liability Rule, and Inalienability: One View of the Cathedral*, 85 HARV. L. REV. 1089 (1972).

²⁷ This idea was first described in, Yoshida, *supra* note 13, 2240 HANREI JIHOU 7 ~ (2015).



(Thyroid cancer check-up of Fukushima children) (from *The Japan Times*) (May 13th, 2016)

seriously by some epidemiologists such as Prof. Masahide Tsuda²⁸, even though influential medical experts committed to the government’s policy deny the causal link to radiation. The Fukushima Examining Committee issued an Intermediary Report, which despite 116 confirmed and another 50 possible cancer patients among the several hundreds of thousands of Fukushima children, results 30 times the national average, still denied causation²⁹. Local residents should talk more openly about their diseases in a communal setting. Frequently, Fukushima sufferers have been more dispersed and solitary, but they should not be discouraged from discussing their health problems due to prevailing climate.

The main criticism of the intermediary guideline issued by the Nuclear damages Conflict Council, was that they focused on the ‘evacuation’ as the typical image of Fukushima Nuclear damage and followed the precedents for automobile accidents, where physical damage is more salient³⁰, and the fictitious feature of this application to

²⁸ For example, Masahide Tsuda, *The Increase of Thyroid Cancer Patients in Fukushima: The Brute Reality and Its Cause (Fukushima Koujousen Gan Tahatsu no Genjou to Gen'in)*, 879 SEKAI 87, esp. 98~ (2016).

²⁹ For a critical comment by the International Association of Environmental Epidemiology, see, MAINICHI SHIMBUN, March 7th, 2016, p.28.

³⁰ For one of the earlier criticism of this strand, see, Osamu Saitoh, *Modern*

radiation cases becomes obvious when we consider the arbitrary shrinking of the evacuation zone by the government, the unreasonable neglect of voluntary evacuees, and the unscientific standard of 20mSv, which is unsupported by the world consensus under the Linear Non-Threshold (LNT) thesis³¹. This likely influences the related adjudications.

Within this twisted situation, 'health effects due to radiation' should be the core issue for nuclear damages and it could be argued that we can only see the tip of the big iceberg when it comes to Fukushima. A new theory of causation based on epidemiological studies of radiation and new responsibility with regard to exposure to radiation, incorrect information and maltreatment will be the next crucial agenda in the near future.

To challenge the oppressive administrative scheme and overcome the fictitious notion of damages that has been produced, a spirit of 'rebellious lawyering'³² will be helpful for the practicing lawyers of the desperate evacuees.

D. The Problem of Communities

In terms of communal living, Fukushima's situation is miserable. Evacuation and associated disputes have resulted in the destruction of community ties and many evacuees suffer from solitude and related

Challenges for Pain and Suffering Issues (Isharyou no Gendaiteki Kadai), 74 SHIHOU 156, at 160 (2012). From the Council's side, they followed the legal scheme of damages in traffic accident cases, such as pain and suffering and lost profits, because there had been lots of precedents that can be applied.

³¹ Under the LNT (Linear Non-Threshold) thesis, radiation under 20mSv cause health effects as a matter of probability. Thus, as this is related to population density, health damage in the Fukushima case might be worse than that at Chernobyl in the future, especially given the current situation.

³² GERALD LOPEZ, *REBELLIOUS LAWYERING: ONE CHICANO'S VISION OF PROGRESSIVE LAW PRACTICE* (Westview, 1992).

mental/emotional distress. An additional budget has recently been set aside for the construction of recovery public housing enabling mandatory evacuees to maintain their community ties³³, but there are no similar efforts for voluntary evacuees.

It’s a daunting task to alter this situation from the relational perspective and it might be outside of the lawyers’ field. In the face of many solitary deaths after the Kobe Earthquake in the mid-1990s, community housing was strongly promoted in the process of disaster recovery following the Niigata Central Earthquake in the mid- 2000s, most prominently by Village Mayor Tadayoshi Nagashima of Yamakoshi Village (now merged into Nagaoka City).



(Mr. Nagashima, now the congress person in charge of disaster recovery, at the 10th year memorial conference at Nagaoka City) (October, 2014))

However this lesson has been forgotten in the aftermath of the East Japan Earthquake and the destruction of communities has been exacerbated in its aftermath for the last 5 years. In the case of the Chernobyl accident, communities could be maintained through

³³ For example, NHK/ETV Series, “Residents of Shimo-Kajiro Recovery Public Housing (*Shimo-Kajiro Danchi no Hitobito*)” (February, 13th, 2016) dealt with the recovery of community ties in terms of welfare/wellbeing among mandatory evacuees from Towns of Tomioka, Ohkuma, Futaba, and Namie.

collective evacuation. Comparisons of these two nuclear accidents in terms of community building should be done and this is my next research agenda.



(The Disaster Recovery at Yamakoshi Village within several years. Unlike in the aftermath of the Kobe Earthquake and the East Japan Earthquake, there have been no solitary deaths there.)



(Some pictures of exceptionally communal lives at Date East Temporary Housing for Iitate Villagers. Despite the friendly relationship among temporary residents there, considerable number of them already suffer from health problems due to exposure to radiation at Iitate Village.)



(New Buildings at the Lower 9th Ward in New Orleans) (January, 2013)

V. Ending Remarks

Professor Mitchell Crusto has recently conducted a legal and political analysis of Katrina ten years after the tragedy and argues that there was little morality displayed in its aftermath³⁴. I think exactly the same thing can be said about the aftermath of the Fukushima radiation disaster. All of the evacuees from Fukushima have been displaced from their home and should be considered as vulnerable victims, whether their evacuation was mandatory or not. However, the tension, conflict, accusations and contestations among them have increased and deepened their mental distress as a result of the unequal governmental support offered to them, as this paper discussed. On the other hand, in spite of the large scale of litigation by more than 10,000 plaintiffs against TEPCO itself, no one among TEPCO staff and governmental officials will accept personal liability, merely by shifting the financial burden onto ordinary citizens.

³⁴ MITCHELL CRUSTO, *INVOLUNTARY HEROES: HURICANE KATRINA'S IMPACT ON CIVIL LIBERTIES* (Carolina Academic Press, 2015). See also, do., *Hurricane Katrina's Tenth Anniversary: Its Impact on Civil Liberties Today*, 79 (2) *THE BOULE JOURNAL* 4~ (2015).

Furthermore, most of the trillions of yen in the disaster recovery budget being spent on public works, most prominently for decontamination.

In this sense, in Japan too, the vulnerable victims and their constitutional rights and liberties have been systemically abused. As many people in New Orleans were forgotten in 2005 and after, millions of residents in Fukushima have been neglected without any correct evacuation orders by the government and left exposed to high radiation in 2011 and after. Thus, we have to take a new type of broader responsibility seriously, from the public, moral, and social perspectives. A more interdisciplinary approach is urgently required in order to develop a holistic solution to improve resilience in these broken communities, one which recognizes both the importance and limits of the role of law.