



Procedural equity and corporeality: Imagining a just recovery in Fukushima



Kei Otsuki

Department of Human Geography and Spatial Planning, Utrecht University, PO Box 80115, 3508TC, Utrecht, The Netherlands

ARTICLE INFO

Article history:

Received 1 May 2015

Received in revised form

8 December 2015

Accepted 16 December 2015

Available online 14 January 2016

Keywords:

Corporeality

Environmental justice

Nuclear power

Rural development

Fukushima

Japan

ABSTRACT

In March 2015, interim storage facilities began to operate in Fukushima, Japan and to receive waste, including soils and plants that were contaminated with radiation after the Fukushima Daiichi nuclear power plant's explosions four years ago. Two rural towns that host the plant accepted the operation in their territories, acknowledging that they had benefitted from the plant and they bore the burden as an outcome. The environmental justice framework suggests that such an acceptance reveals peripheralisation of rural villages that were forced to embrace the government-sponsored nuclear industry and to become 'rural-nuclear towns'. An emphasis is often placed on participation of the affected citizens to address the peripheralisation and to seek justice through establishment of procedural equity. Using media reports, published policy documents and interview excerpts, this paper reconstructs historical process by which the peripheralisation occurred and argues that the current emphasis on procedural equity is susceptible to endorsing the ongoing promotion of public participation in disaster management, which fails to facilitate re-imagining of reconstructing rural-nuclear towns as rural towns in a post-nuclear world. The paper proposes a corporeal approach to set an analytical ground to establish a new social imaginary in which participation comes to mean creation of a new political process that envisions foundational change.

© 2015 Elsevier Ltd. All rights reserved.

1. Introduction

On 11 March 2011, the Great East Japan Earthquake and the massive tsunami hit Tohoku or, north-eastern Japan; on the next day, a series of explosions took place at the Fukushima Daiichi (No.1) nuclear power plant. The tsunami had destroyed the electricity system and back-up generators of the plant, which had been constructed on the Pacific coast. This destruction stopped the plant's six nuclear reactors' cooling systems, led to the 'meltdown' and eventually induced hydrogen explosions that 'tore apart the buildings' housing reactors ... and ... [caused] ... the uncontrolled leak of radioactive materials beyond the vicinity of the plant ... A 3 km evacuation zone was immediately established, which was widened to a 10 km and then a 20 km zone, a no-go area' (Matanle, 2011, p. 825; see also Gemenne and Hasegawa, 2012).

The owner of the plant, Tokyo Electric Power Company (TEPCO), continues to grapple with technically establishing control over the plant and stopping further leaks of radioactive materials. In the

beginning, TEPCO announced that it would take '9 months to bring the ... [Fukushima Daiichi] ... plant under control' (quoted in Matanle, 2011, p. 825). However, on 20 February 2015, nearly four years after the disaster, 'fresh leaks of highly radioactive water to the sea' were detected, demonstrating that TEPCO is nowhere near being able 'to decommission the crippled atomic station' (Japan Times, 2015b).

While TEPCO stumbles at decommissioning the plant, 70,000 people remain displaced from the no-go area as the evacuated residents (Reconstruction Agency, 2015).¹ In order to make the possibility of these evacuated residents' returning home visible and real, the Ministry of Environment (MOE) adopted the threshold of 20 millisievert (mSv) as a potentially habitable level of radioactive contamination following the standard set by the International

¹ They are a part of the 220,000 evacuees of the Great East Japan Earthquake who remain displaced from their homes four years on (Reconstruction Agency, 2015).

E-mail address: K.Otsuki@uu.nl.

Commission on Radiological Protection (MOE, 2012).² Decontamination operations have been taking place throughout Fukushima since then to achieve this standard (MOE, 2015a).

In the no-go area where the radiation level is mostly higher than 50 mSv, professional workers with special protective gear remove surface soil or clear trees in residential and farm lands. They are unable to stay more than a few hours at a time, and the decontamination operations near the wrecked Fukushima Daiichi power plant are only conducted as small-scale demonstration projects (MOE, 2012; Okuma Town Council, 2015). In addition, the MOE also proposes the long-term goal of decontamination as being the reduction of a person's additional exposure to a dose of less than 1 mSv, that is, the normal level proved to be harmless to human health (MOE, 2012). Consequently, in places where the contamination level is less than 20 mSv but the normalisation level of 1 mSv is yet to be reached, the residents wear masks and scrape soil from their gardens and neighbouring roadsides in order to lower the contamination level (Mosneaga and Totoki, 2015).³

All these, both demonstrative and everyday decontamination operations have produced soils, plants and woods that are highly contaminated with radiation. The contaminated materials are usually piled up on the spot, covered with plastic sheets or placed in temporary containers. In Fukushima, in total, 5.5 million m³ of contaminated materials were produced by the end of 2014 and kept at 76,000 sites (Asahi Shimbun, 2015).

The MOE promised, as early as at the end of 2011, that the contaminated materials on these sites would be moved to and stored in special facilities that would be built in Fukushima within three years. Since no municipality in Fukushima was willing to accept the contaminated materials within its territory for an indefinite period of time, the MOE had to make another promise to the affected municipalities that the special facilities were *interim* and, after 30 years, the treated materials in these facilities would be transported to final disposal facilities installed outside Fukushima.⁴ The radiation levels of these materials are expected to be significantly lowered by then (MOE, 2015b).

In August 2014, the mayors of Futaba and Okuma towns in Futaba County that co-host the Fukushima Daiichi power plant, announced that they would accept the construction of the interim storage facilities (hereafter, ISFs) in their territories. On 25 February 2015, the safety treaty was signed between the two town councils, Fukushima prefectural government, and the central government to ensure the central government's responsibility for safely transporting contaminated materials from all over Fukushima to the ISFs. The central government announced that they intended to start the pre-operation before reaching the fourth anniversary of the disaster on 11 March 2015, but the mayors asked that the actual transportation of contaminated materials be started after this date since it is still quite a sensitive date for the evacuated residents.

In fact, the entire process of approving the construction, signing

the treaty, and starting of the ISFs' pre-operation (which turned out to be on 13 March 2015) became a contentious issue. Futaba and Okuma towns are typical *rural-nuclear towns* that had become highly dependent on the nuclear power plant.⁵ Being small, impoverished rural villages, which were marginalised as a hinterland of rapidly industrialising Japan during the 1960s, they welcomed the plant and reaped in benefits that the plant generated such as basic infrastructure and employment. The acceptance of ISFs was seemingly underpinned by these towns' resignation and admittance that they had to bear this burden as a price of the past prosperity. As stories of other nuclear towns tell, even though the people are aware of risks of such facilities, they tend to downplay or avoid to acknowledge them because nuclear power plants are a part of their everyday landscape and any material outcomes of the plants are accepted as inevitable (Zonabend, 1989; Henwood et al., 2008; Parkhill et al., 2010).

However, it is now known in Japan that the benefits of hosting the nuclear power plants have been carefully crafted by a closed relationship between politicians, bureaucrats, scientists, industry and the media, who had formed the so-called Atomic Circle (or the Atomic Village, literally translated from the Japanese *Genshiryoku-Mura*): the Circle keeps on promoting nuclear energy in rural areas, and the very making of rural-nuclear towns has been based on structural coercion of impoverished rural villages into the apparatus of nuclear promotion (Hasegawa, 2012; Rieu, 2013; Fujigaki, 2015). Sustainable rural development for these villages to prosper as rural towns by building on their indigenous and natural resources has never been on the agenda and, without viable alternatives to dwindling farming and draining of the populations, rural villages usually have no choice but to let themselves be submitted to the coercion. Furthermore, with the embracement of nuclear power plants, the rural-nuclear towns become simultaneously peripheralised, as they accumulate nuclear waste (Blowers et al., 1991; Blowers and Leroy, 1994), and pose immanent risks dreaded by ordinary citizens (Slovic, 1987; Peters and Slovic, 1996). The acceptance of ISFs by Futaba and Okuma towns symbolises the peripheralisation of rural-nuclear towns that had been forced to constitute 'energy sacrifice zones' (Hernández 2015, p. 152; see also Takahashi, 2011).

In other words, ISFs have worked to confirm existence of environmental injustice in Fukushima (cf. Shrader-Frenchette, 2012). The environmental justice framework suggests that this injustice stems from a fundamental lack of 'procedural equity', which has deprived rural-nuclear towns of opportunities to mobilise themselves, become empowered, and get themselves recognised as the principal agents to determine their own sustainable futures (Lake, 1996). In practice, this means that the residents had not been given sufficient opportunities to claim their 'place at the table' to participate in negotiations with actors who form the Atomic Circle (Schlosberg 2004 quoted in Banerjee, 2014, p. 809).

The problem is that the environmental justice framework has been ambiguous about the relevance of this 'table'. This paper shows that people have been in fact participating in negotiations about the construction of ISFs, but they are increasingly expressing uneasy feelings about the context in which the negotiations take place. As Velicu and Kaika (2015: 3) argue in the case of toxic mining operation, the pursuit of 'participation' in management of existing industries works to endorse practical and conceptual 'tools that produced ... [these people's] ... oppression in the first place'.

² Some experts consider this 20 mSv standard to be too high and accuse the central government and TEPCO for adopting this number to limit the amount of compensation money to be paid as well as the evacuation period (Takahashi, 2011; Yoshihara, 2013).

³ Strictly speaking, decontamination is a technical term indicating radioactive site clean-up while removing of the soil described here is an act of environmental remediation. I use the term decontamination also to mean such remediation activities because official documents use decontamination as the translation of the Japanese term *josen*, which indicates all the activities to remove contaminated materials.

⁴ On 14 April 2015, the MOE announced that they would change the name from the 'final disposal facilities' to 'long-term storage facilities', implying that they are looking for a technology to clean up all the contaminated materials and return them to nature, ultimately resulting in a Japan without any of these facilities (Mainichi Shimbun, 2015b).

⁵ In Japanese, these towns are officially named *genpatsu ricchi* municipalities – literally, towns with nuclear power plants, and they form the national federation to collectively negotiate with the central government about nuclear development policies (especially the associated subsidies, as we see in the section 5.2 below).

Download English Version:

<https://daneshyari.com/en/article/6460203>

Download Persian Version:

<https://daneshyari.com/article/6460203>

[Daneshyari.com](https://daneshyari.com)