State's Scalar Strategy Coping with Crisis of Regulation: Politics of Scale for a Nuclear Waste Disposal Site in South Korea

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Absract

This paper examines the ways in which the state copes with a regulatory deficit stemming from scalar tensions between the national and the local through a scalar restructuring of regulation. In particular, by exploring scalar and territorial tensions occurring with regard to the location of a radioactive waste disposal facility in South Korea, we investigate how a scalar strategy of the state, through which the scales of regulation and decision-making are jumped down from the national to the local, has transformed the national-local scalar tensions to inter-local competitions for the disposal facility. This paper also examines the differences in the ways in which territorial interests and identities are mobilized between when the national-local scalar tensions occurred and when different localities competed for the disposal facility.

Key words: state space, politics of scale, locational conflict, radioactive waste, South Korea

Introduction

This paper examines the ways in which the state copes with a regulatory deficit stemming from scalar tensions between the national and the local through a scalar

restructuring of regulation. In particular, by exploring scalar and territorial tensions occurring with regard to the location of a radioactive waste disposal facility in South Korea, we investigate how a scalar strategy of the state, through which the scales of regulation and decision-making are jumped down from the national to the local, has transformed the national-local scalar tensions to inter-local competitions for the disposal facility. This paper also examines the differences in the ways in which territorial interests and identities are mobilized between when the national-local scalar tensions occurred and when different localities competed for the disposal facility.

In South Korea, there were two severe cases of violent protests against the construction of a nuclear waste disposal facility for the last 20 years. The first one occurred at Anmyeondo island in Taean County in November 1990. On 3 November 1990, a newspaper report on the government's plan to locate a nuclear waste disposal facility in Anmyeondo island was issued. This report was soon followed by a series of violent protests from local residents and environmental activists against the government plan. Facing the severe protests, the Korean government finally withdrew the plan on 9 November 1990.

The second case was a series of protests that took place at Wido island in Buan County from July to August 2003. In July 2003, Buan county office proposed to the central government to locate a nuclear waste disposal facility in Wido, a small island 14.4 kilometers off the coastline in the county. This time again, fierce and violent protests followed. The protests in Buan were very fierce and violent, which is well illustrated in this newspaper article.

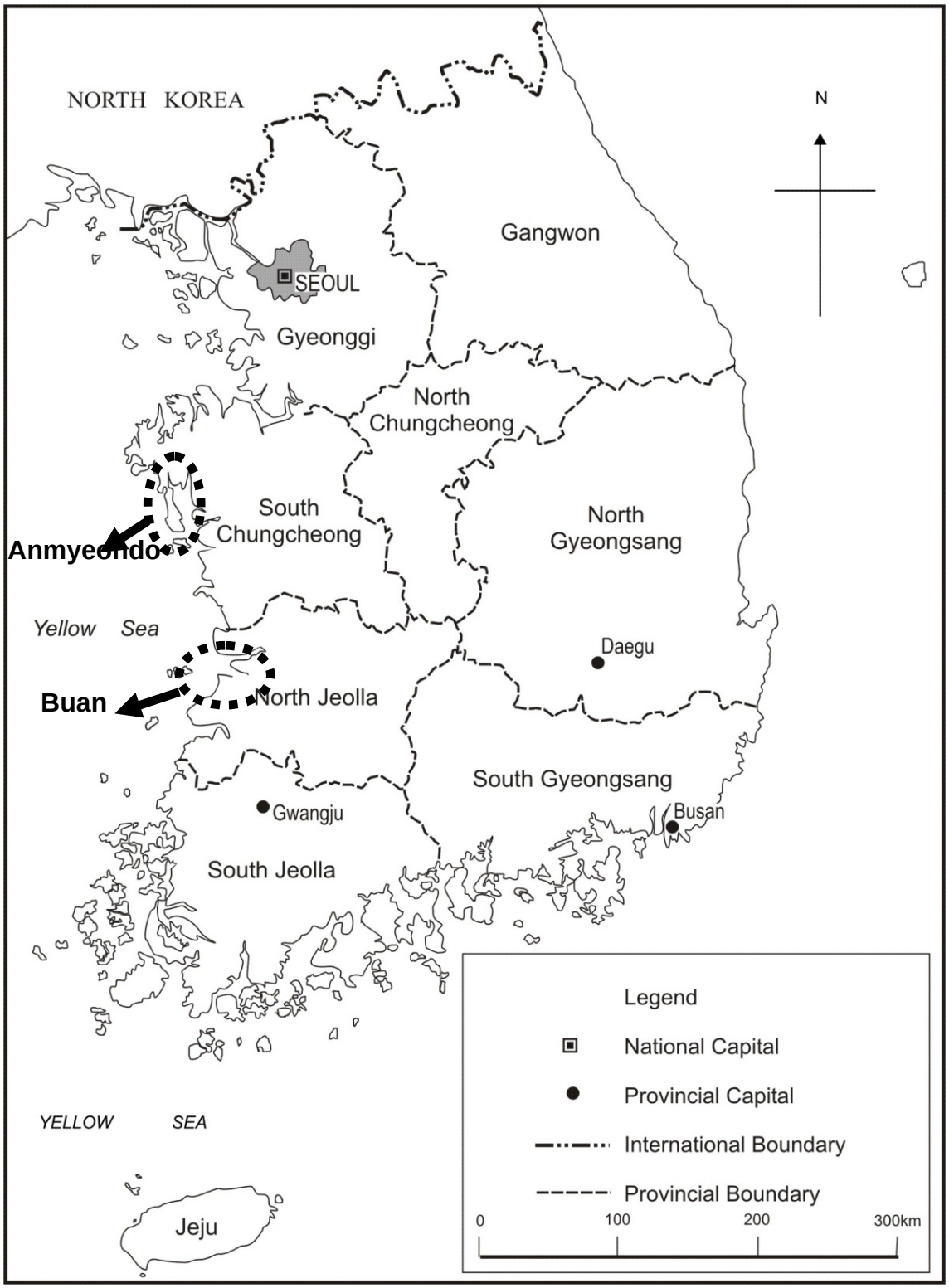

Figure 1. Location of Anmyeondo Island and Buan

On 26 July 2003, more than a dozen demonstrators and riot police were injured as violent protests continued in response to the government's decision to build South Korea's first nuclear waste repository in this southwestern county and the two ministers visit to appease the residents of the region. Setting fire to garbage trucks and rubber tires while others pelted the office compounds with rocks, the protestors demanded a meeting with the visiting ministers. The two ministers were forced to change buses and leave after protesters blocked roads in and out of the office. Around 10 demonstrators were taken to nearby hospitals as a result of the clashes and a group of protestors have been taken into custody. … More than 1,000 citizens surrounded Buan County office on 26 July to protest the plan to build a nuclear waste facility on Wido (Korea Times, 27 July 2003).

Figure 2. Protest in Buan 1

Figure 3. Protest in Buan 2

These two events are actually parts of a 20-year history of the Korean government's effortful attempts to find a nuclear waste disposal site. The 20-year history, however, can be simply summarized as continuous failures, thereby resulting in a 20-year delay of nuclear waste disposal facility construction. This is mainly due to severe contestations over the site selection. There were a series of strong and violent resistance from the localities considered to be candidate sites, from 1986 to 2004. As a result, the Korean media named the construction of the nuclear waste disposal facility as "the longest pending state project" in 2005, and it became a well-know example of crisis of regulation in South Korea. But, all of sudden, in November 2005, the Korean government was able to select a nuclear waste disposal site. How was it possible, despite the long existence of strong and violent resistance?

In answering this question, the paper seeks to pursue the following research goals.

1) examining the state's spatial/scalar strategy, utilized as a way of coping with the crisis of regulation stemming from the "national vs. local" contestation, and its impacts on local politics and the state space
2) conceptualizing the relationship between (a) inter-scalar tensions between the national and the local and the resultant crisis of regulation and (b) the state's downward rescaling of regulation.

Theoretical Background

In recent social science literature, there has been an increasing number of challenges to the naturalization of state space, in which state spatiality has been seen as a pre-given and relatively unchanging feature of modernity (Brenner, Jessop, Jones and MacLeod 2003). In this context, one emergent research agendum has been concerned with the production and transformation of state space. More specifically, an increasing number of social scientists have paid attention to the restructuring of territorially demarcated forms of state power, the recent decentring of nationally-scaled forms of state activity, and the effects of newly-emergent political and state spaces on the nature of urban and regional governance.

This new research trend has made an enormous contribution to the understanding of state spatiality. In particular, theoretical discussions on the "political economy of scale", which have been developed by critical human geographers such as Eric Swyngedouw

(1997), Neil Smith (1993), Neil Brenner (1998) and others, can provide very helpful theoretical frameworks for understanding the ways in which the scalar organization of the state under capitalism is socially produced and periodically transformed. Also, the idea of “the hollowing out of the state” or “glocalization” has come to be increasingly accepted in urban and regional studies (Jessop 1994; Swyngedouw 1997).

But, early works on the rescaling of the state, strongly influenced by the regulation approach, had a tendency to view the scalar configurations of the state as being determined by wider regulatory processes. According to the “glocalization” and “hollowing-out” theses (Swyngedouw 1997; Jessop 1994), for example, the transition from Fordism to post-Fordism and economic globalization resulted in the decline of national-scale regulatory processes, and in the increasing significance of more globalized or more localized regulatory processes. The regulationist approach to the rescaling of the state, which focuses on the changes in mode of accumulation and the needs of capital, can be held in contrast to recent works on the social construction of scale; the latter have provided much more nuanced explanations of the ways in which scales are materially and discursively constructed and restructured through complex strategic interactions among the social forces (for example, social movements, unions, growth coalitions, political parties, etc.) that emerge in power struggles (Smith 1993; Marston 2000; Herod 1997; Agnew 1997; Cox 1998a). In relation, there has been increasing awareness that globalization is not the cause for the social and political changes we have experienced but is, indeed, an outcome of complex and contested interactions among diverse social, political and economic processes occurring at various geographical scales (Cox 2005; Yeung 2002; MacKinnon and Phelps 2001; Park 2003a).

Acknowledging these theoretical developments, and being strongly influenced by the strategic–relational approach to state theory provided by Jessop (1990), Neil Brenner (2004) has recently provided a more advanced theoretical understanding of the spatiality of the state, and its scalar and territorial restructuring. In his book on state space, Brenner (2004) conceptualizes the spatiality of state in terms of the strategic interactions among diverse forces acting in and through the state; this has been mainly emphasized in Jessop's strategic–relational approach to state theory. In particular, he sees the spatiality of the state not as being permanently fixed but as a site, generator and product of political strategies; thereby, representing an emergent, strategically selective, and political contested process (Brenner 2004, 89, 90). More specifically, he argues that "the territorial coherence and interscalar coordination of state institutions and policies … can be established only through the mobilization of political strategies intended to influence the form, structure, and internal differentiation of the state space (Brenner 2004, 90)".

Jessop's strategic-relational approach to the state and Brenner's attempt to spatialize the state theory provide very valuable insights to our understandings of the state rescaling in the sense that they allow us to see the scalar restructuring of the state not as a passive outcome of wider structural changes or economic processes, but in terms of the complex interactions among actors acting in and through the state. Their contributions, however, are very much epistemological in the sense that it is mostly about how to approach the state, thereby lacking in theorizing the causal processes related to the state actions. Also, Brenner's theorization of the state rescaling is a bit too abstract, so it needs to be complemented by more *concrete* explanations on the state rescaling processes. Brenner

himself acknowledges that a new round of research on state rescaling needs to develop more concrete logics of explanation (Brenner 2009).

With this problem orientation, I have tried to develop a more concrete causal mechanism on the rescaling of the state in my recent paper, entitled “Uneven Development, Inter-scalar Tensions, and the Politics of Decentralization in South Korea” published in International Journal of Urban and Regional Research in 2008 (Park 2008). The paper focused on the ways in which the spatiality of top-down regulatory processes led by the state can generate inter-scalar tensions between the national and the local; this, in turn, results in the downward rescaling of the state. More specifically, I argued that the territoriality of regulation and its associated territorial politics can have a significant impact on the scalar restructuring of the state. Due to the territoriality of regulatory processes, certain territorial interests or identities can be politically mobilized in regulatory processes, and territorial politics may emerge. Certain forms of territorial politics can challenge the existing scalar configuration; especially when regulatory processes are highly centralized at the national scale, the benefits of national-scale regulation can be unevenly distributed to localities due to spatial selectivity. To protect or enhance their place-dependent interests, social actors in those localities disadvantaged by top-down regulation can organize territorial politics that aims at influencing the regulatory activities of national actors. In such political processes, when national–local tensions become intense, and when bottom-up forces can organize a wider alliance to challenge the central forces, the national ruling elite can use the strategy of decentralization to maintain its political legitimacy. One outcome of this is the downward rescaling of the state.

This paper aims to advance this argument by considering the mirco-level political processes and policy makers' strategic choices in understanding the processes of state rescaling. This attempt has been made as a way of complementing my previous argument on the state rescaling, which puts emphasis on the crisis of regulation stemming from the national-local interscalar tensions as a cause of the downward rescaling of the state. My previous argument has provided a kind of more marco- or meso-level explanations on the state rescaling because it can only explain one of the conditions for the state rescaling without really explaining the actual causes why, and the actual processes through which, the state bureaucrats decide to decentralize some of its powers to the more local levels the state. The state rescaling does not happen in a dramatic fashion under certain politico-economic pressures. Instead, it may occur through successive rounds of policy adjustments to previous failures, cumulatively transformative shifts in the scalar configuration of the state, and progressive deepening of power decentralization. In this sense, as a way of complementing my previous argument, this paper pays attention to the ways in which the state bureaucrats have responded to various policy failures stemming from the national-local tensions.

Research Context

Nuclear energy has served as a crucial energy source for South Korea. As of 2008, there were 20 nuclear plants in 4 locations, which generated 1,771.57 kw, accounting for about 40% of total power generation in South Korea. These nuclear plants have

produced a lot of nuclear waste. In 2003, the 18 Nuclear Plants produced about 2.76 million liter-drums of nuclear waste a year. Due to the absence of a nuclear waste disposal facility, as of 2003, 68,387 drums were held in temporary storage at four complexes of nuclear plants. As a result, treating the nuclear waste has become an important problem to be solved if South Korean continues to rely on the nuclear energy. Thus, there has been an urgent need of constructing a nuclear waste disposal facility.

The urgent need, however, was not met due to the continuous failure of the Korean government to select a nuclear waste disposal site. For the last 20 years, the Korean government had conducted 7 attempts to find the location. As mentioned earlier, the first 6 attempts all failed to build the disposal facility, but finally in 2005, the government was able to find a location, and decided to locate the nuclear waste disposal facility in Gyeongju in North Gyeongsang Province.

Considering such a long-lasting and complicated history, the analysis of this paper focuses on the following questions.

1) How was the Korean government able to resolve the crisis of regulation related to the so-called “longest pending state project”?
2) Which spatial/scalar strategy was used by the Korean government to cope with the crisis of regulation?
3) What were the influences of the new spatial/scalar strategy on local politics and the spatiality of state?

Table 1. Locations of Nuclear Power Plants in South Korea

Location	**Number of Nuclear Plants**	**Generating Capacity (Unit: 10,000 kw)**
Gori	4 plants	313.7
Weolseong	4 plants	277.87
Yeonggwang	6 plants	590
Uljin	6 plants	590
Total	20 plants	1,771.57

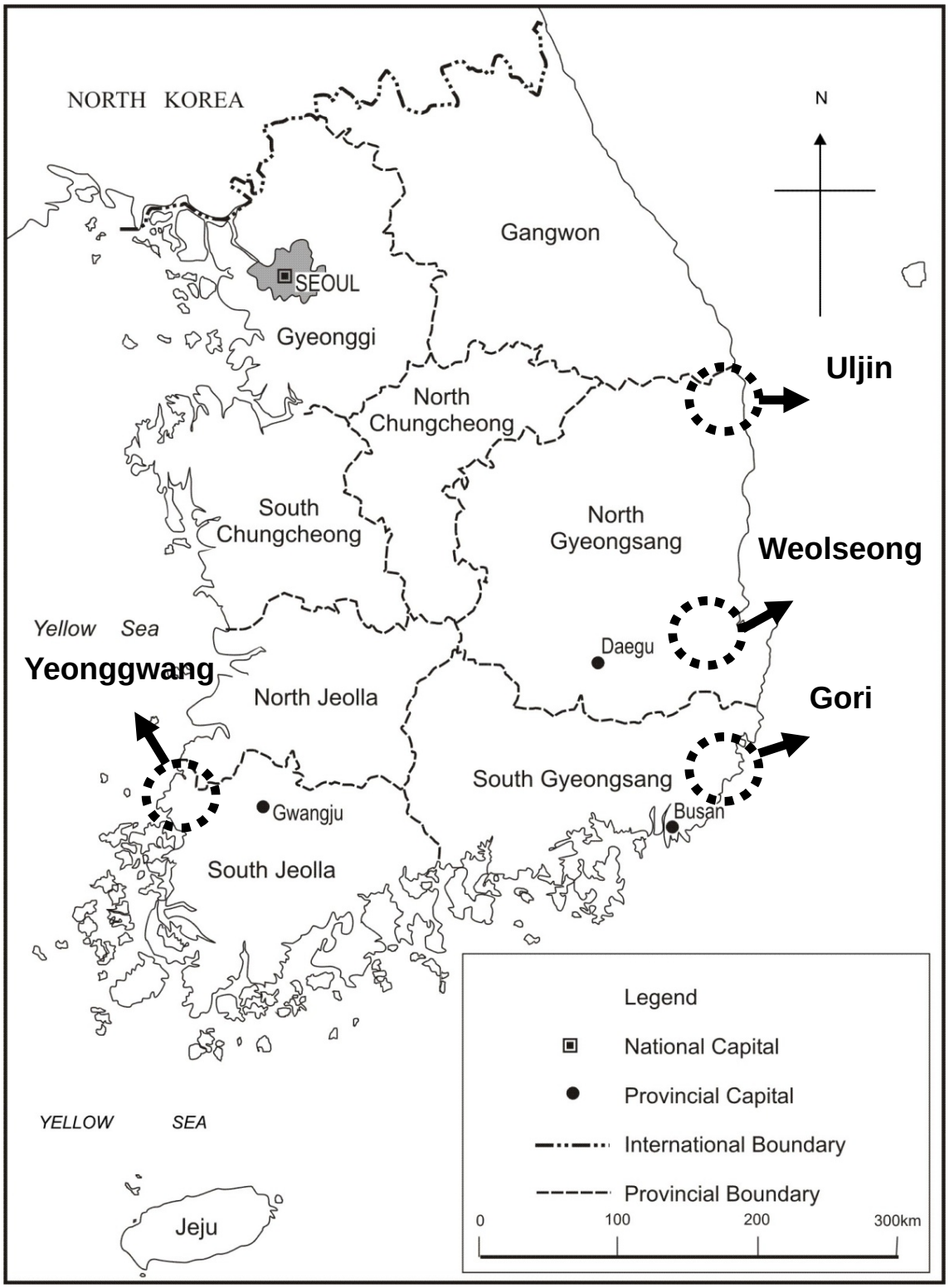

Figure 4. Locations of Nuclear Power Plants in South Korea

Why Failed in the First 6 Attempts?

Why did the Korean government failed to construct a nuclear waste disposal facility in the first 6 attempts? The Korean general public perceived this failure as something related to the mistrust between local community and the central government. This view is well represented in the following newspaper article.

> *Local resistance against the national project was the main reason for the failure. … Regarding this, the Korea Nuclear Energy Foundation (KNEF), a non-profit, public relations organization with an eye to promoting better understanding of nuclear energy in the Korean general public, mentioned that there was a lack of understanding between the local community and the government, a lack of transparency and general mistrust for government policy in an interview with Korea Times* (Korea Times, 20 April 2003).

At a glance, this view seems true because the local residents opposing to the government's construction plan have always criticized the government for the same reason. This view, however, does not point out the underlying mechanism for the failure. An important structural condition for the failure was a centralized regulation and decision-making system. The central government, especially Ministry of Commerce, Industry and Energy (MOCIE), had been in charge of the whole process related to the construction of the nuclear waste disposal facility. Also, the decision-making processes had been highly top-down. The Site Selection Committee under MOCIE were supposed

to select the best suitable site for the nuclear waste repository after considering such categories as geological features, efficiency for investment, proximity to power and water, etc., aiming at scientific selection of the best suitable location. Also, the efforts to construct a nuclear waste disposal facility strongly represented “national” interests in the sense that building a nuclear waste repository was needed for the continuation of nuclear energy production, which was essential for the “national” economic growth. In this context, local voices had been seen as influenced by selfish parochial interests and harmful for the scientific and rational site selection.

This highly centralized regulation and decision-making process had resulted in very clear inter-scalar differentiation in regulatory goals and interests between the national and the local. For the national community, efficient treatment of nuclear waste and continuation of nuclear energy production were the most important goals. But, local communities have different interests. They want to stay away from something potentially risky and hazardous. Given this, alliance had been easily made between national-scale anti-nuclear and environmental activists and the local interests. Regarding this, I need to mention that there have been long continued contestations on nuclear energy production in Korea at the national scale. The anti-nuclear activists and the local residents concerned about the potential risks from the nuclear waste disposal facility shared the same interests, and they had been able to build an alliance with ease. Due to the strong alliance between national-scale anti-nuclear forces and local interests, the anti-nuclear discourses had been easily penetrated into localities.

This situation had given significant impacts on local politics. First, in the localities

considered as candidate sites for the nuclear waste repository, anti-nuclear sentiments had been easily mobilized. As a result, even though the Korean government had kept promising to provide various economic incentives to the disposal site, growth-oriented interests seeking for the economic incentives from the central government had been very weakly mobilized. Instead, anti-growth coalitions had been built up in those places. Second, and more interestingly, in some cases, the anti-nuclear discourses had been territorially manifested as the "national vs. local" inter-scalar tensions became more tense. For example, in the case of Buan, as protests, clashes and contestations had continued, highly territorialized slogans had been raised as follows: "North Jeolla is turning to a nuclear base, the graveyard of all"; "Locate the nuclear waste dump in Seoul, where all powerful politicians are living." Through such processes of territorialization, the anti-nuclear activism became seen as necessary for defending the local community against the external intrusion from the central government.

The outcomes of this process and mechanism are highly intense national-local tensions and strong local resistance against the state project. And, ultimately, such tensions had resulted in the crisis of regulation, which is well illustrated in the following expressions from the newspapers.

"No One Wants Nuclear Dump." (Korea Times, 10 Aug 2003)

"On 12 December 2003, Minister of Commerce, Industry and Energy, Yoon Jin-sik resigned, taking the blame for the confusion surrounding the designation of a site for Korea's first nuclear waste dump." (Korea Times, 13 Dec 2003)

How to Cope with this Crisis?

Which actions were taken by the Korean government to cope with the crisis of regulation? In order to resolve the crisis of regulation, the Korean government employed a new scalar strategy, which can be characterized as 1) a jumping-down strategy, 2) a more bottom-up approach and 3) a less interventionist approach.

In particular, 3 concrete measures were utilized. First, the government took a more bottom-up approach. Instead of selecting a site, the government decided to receive applications from cities and counties, which want to locate the nuclear waste repository in their territories with signatures of more than one-third of their population. Also, the government requested the local government of the selected site to get approval from local residents through local referendum – at least, more than 50% approval rate is required. Second, the government provided less interventionist, but incentive-based inducement measures with an enactment of "special bill on nuclear waste disposal site" on 2 March 2005. With this enactment, it legally institutionalized economic incentives to the local government to house the nuclear waste dump. The incentive package included 1) provision of 300 billion won ($300 million) in financial support to the local government, 2) relocation of the Korea Hydro & Nuclear Power headquarter from Seoul to the selected locality, and 3) allowing the local government to receive a commission income on the inflow of nuclear waste, which is estimated at 8.5 billion won ($8.5 million) a year. Third, the government set up a competition-based selection system, in which localities of more than one were supposed to participate in competitive bidding for the nuclear waste repository. More interestingly, the bidding was based on who get

the highest approval rate from the local residents. So, under this system, the localities were allured by the huge economic incentives for the nuclear waste repository, and the applied localities were supposed to compete against each other. Also, winning the competition was based on how successful those wishing to attract the nuclear waste disposal facility to their localities are in persuading local residents to accept their proposal.

Impacts on Local Politics and State Space

How did this new strategy work out? To answer this, we need to see what happened in the government's 7th attempt. 4 local governments applied for the nuclear waste disposal site, including Gyeongju, Pohang, Yeongdeok, and Gunsan. There were fierce competition among 4 candidate localities. Local referendums held on 24 October 2005, and the final outcome of the referendums was that Gyeongju posted the highest approval rate with 89.5%. As a result, Gyeongju was chosen as the first nuclear waste repository site in South Korea. There was a huge gap between the outcome of local referendum in Gyeongju (89.5% approval rate) and the 92% opposing rate from the local referendum held in Buan on 15 February 2004 for the Korean government's 6th attempt. In other words, this new strategy worked out very successfully.

There were significant impacts of the "Jumping-down" strategy on local politics in Gyeongju. First, growth-oriented interests were strongly mobilized in Gyeongju with the rise of growth coalitions looking for the economic incentives from the government. Second, the competitive bidding among various localities resulted in the rise of strong

inter-local competitions. Third, the government's multi-site strategy made the national NGO activities spatially dispersed to various localities, which weakened the alliance between national anti-nuclear NGOs and local residents.

The implementation of this new system has also given significant impacts on the spatiality of the Korean state. At least, for the nuclear waste site project, a shift took place from a top-down, interventionist regulatory process to a more bottom-up, incentive-based, regulation. More importantly, this rescaling worked out very well, so it would become a role model for other national projects facing local resistance. It implies that the decentralization processes could be more encouraged. From this observation, we can find out an important theoretical implication. Changes in the scalar form of the state is not necessarily driven by wider changes in regulatory system or accumulation regime, but influenced by more micro-scale interactions among social forces acting in and through the state.

Conclusion: Conceptualizing the Rescaling of the State

From this case study, we can develop a new way of conceptualizing the rescaling of the state by focusing on the center-local relationship.

1) There can be inter-scalar variations in regulatory goals and interests.
2) State's highly centralized regulatory practices is likely to result in inter-scalar tensions between the national and the local, especially when there are significant variations between the national and local communities in their regulatory goals

3) The inter-scalar tensions can become more tense when localities utilize territorializing strategies in order to secure their place-based regulatory interests.
4) The severe inter-scalar tension between the national and the local with respect to the state's centralized regulatory practices may result in a crisis of regulation. An option for the state to cope with such crisis is to utilize a scalar strategy, especially the "jumping-down" strategy, which would eventually facilitate the decentralization of state form.
5) This new strategy would enhance the state capacity to resolve the crisis of regulation at the national scale by transforming the "center vs. local" tension to "inter-local competition" for the state's incentives. But, at the same time, it would result in the domination of growth-oriented politics at the local scale, thereby enhancing the promotion of neo-liberal, market-oriented policies.

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