## Issue of Nuclear Power Plant Siting and Local Politics in Japan July 6 2011

# Smart Talk No. 15

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#### Moderator

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#### Discussants

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This product presents a policy-oriented summary of the Smart Talk.

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On July 6, 2011, the East Asia Institute hosted a Smart Talk Seminar with Professor Jun Saito (Yale University) who presented his ongoing research on the political implications of the decisions on where to locate nuclear power plants in Japan and how such decisions might affect the political economy of intergovernmental relations.

### Summary of the Seminar

Decisions on the location of nuclear power plants and other potentially dangerous infrastructures have always been controversial and filled with political wheeling and dealing. The recent Fukushima nuclear accident has put the nuclear topic onto the political agenda, both in Japan – a country located in an area with extremely high seismological activity which currently has 55 reactors, divided among more than 20 different municipalities - and elsewhere.

The decision-making process for the implementation of nuclear power plants follows the "not in my backyard" (NIMBY) rationale. Professor Saito explained this as a potentially dangerous infrastructure that is conveniently distributed among different regions, giving preference to less populated areas – thus reducing overall risk even at the loss of efficiency – in exchange for compensation schemes provided in the form of side payments and other economic incentives and benefits, thus minimizing negative externality while maximizing positive externality. In order to implement this system effectively in Japan, the presence and interest of senior Liberal Democratic Party (LDP) politicians in the selected municipalities was necessary.

According to the preliminary results of Professor Saito's research, in Japan there is a clear asymmetry between the benefits received (local hiring, cash flows, higher tax revenues) and the costs endured by the affected local communities (migration or reluctance to buy products produced there) which can severely reduce the asset value. What is clear is that the income transfers to the areas hosting the plants do not seem to compensate for the risk attached to nuclear power plants, which is reflected by the market even in the absence of accidents.

Based on his study of the Fukushima Prefecture, Professor Saito reached the conclusion that changes in the local political economy, including patterns of voting behavior, were not significant when compared with similar municipalities with no nuclear power plants. In spite of that, he also acknowledged the difficulty of adjusting trends or values of voting behavior, as nuclear power plant workers tend to be seasonal migrants. Moreover, a distorted payoff structure is evident for the siting of nuclear power plants: while the municipal government collects a large amount of property taxes due to the fact that the power plant itself has a large asset value, the tax revenue declines steadily because the plant's asset value depreciates over time. As the coffers of local governments are gradually hurt, those already with nuclear power plants are induced to demand construction of additional reactors.

The recent Fukushima accident has brought

back to relevance the political and social implications, both at the regional and national levels, of nuclear power.

Under the Basic Energy Plan of 2010, drawn up before the Fukushima accident, nine new reactors were to be built by 2020 and fourteen by 2030, while operating levels of existing reactors were to be increased. However, Prime Minister Naoto Kan has recently asserted that Japan needs to reconsider its energy policy and this will likely be the biggest issue of the next national election. Professor Saito though considers such a debate difficult to push forward given the strong political influence of the nuclear power plant manufacturers such as Hitachi and Toshiba (who recently acquired Westinghouse) and the electricity companies, of which TEPCO is one. Electricity companies have contributed financially to major political parties and have provided electioneering services by mobilizing their labor unions. In addition, the power companies have spent vast amounts of money on public relations and have been able to shape the debate on nuclear power in Japan.

As the Japanese nuclear power industry looks for new ways to stay competitive, Professor Saito believed that one way in which they will guarantee their future will be through technical cooperation or strategic alliances with South Korean or U.S. firms. Given the high demand among developing countries for civil nuclear technology, Professor Saito explained that a different kind of cooperation more closely linked to Overseas Development Assistance (ODA) could emerge. For example, developed economies, such as Japan and South Korea, will soon run out of space for nuclear waste and may seek so-called "aid for waste" deals with developing countries. An example of this has been with Mongolia which is in process of negotiation for international nuclear waste dumping. Professor Saito cautioned that this could become an internationalized version of NIMBY politics and therefore should be accompanied by the necessary multilevel debates and bargaining to make them acceptable to all involved parties.

## About the Speaker Jun Saito

Jun Saito, Ph. D., Yale, 2006, is Assistant Professor of Political Science. He previously taught at Wesleyan University and at Franklin and Marshall College. His research focuses on the institutional determinants of representation and redistribution, in particular how choices of constitutional structures and electoral institutions translate into redistributive consequences. At Yale, he teaches courses on Japanese politics, international relations in East Asia, and comparative political institutions. His coauthored article with Yusaku Horiuchi won the 2004 Alan Rosenthal Award from the Legislative Studies Section of the American Political Science Association. He was once a member of the Japanese House of Representatives (2002-2003).

#### Moderator

Sook-Jong Lee, President of the East Asia Institute

### Discussants

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