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Introduction

Tung Fung and Kin-che Lam

All societies require a full array of facilities to provide services and support for societal development. While some of these facilities may be greeted warmly by local communities, others are less welcome and are increasingly being rejected by those communities. This phenomenon is often referred to as Locally Unwanted Land Uses (LULUs) and the Not In My BackYard (NIMBY) dilemma. Facilities such as power plants, hospitals, highways, prisons, waste treatment facilities, landfills, incinerators, chemical waste disposal, and treatment plants are in demand in the Asia-Pacific region. The need for these facilities is of little dispute among citizens, particularly at the national level. While planners and decision makers need to determine where to locate these facilities, it has become an increasingly daunting task.

While such projects can bring significant gains to both local and national communities, the negative spillover effects, including environmental, social, economic, and health impacts imposed on the local communities are often insurmountable. More often than not, local communities raise serious concerns that often lead to protest and opposition. This can result in project delays, increased developments costs, and even cancellation of projects. Certainly, local communities are vulnerable to the risks associated with facility siting and the challenge for decision makers is to find ways to provide sound communication, effective assessment, and management of the risks involved.

The mismatch between who gains and who loses from the development of projects leads to conflict and, hence, the siting of projects requires a conflict resolution process. The success of this process often rests on the ability of promoters to build up trust and equity in a situation where there is considerable tension amongst the interest groups. Different countries and governments have attempted a variety of methods for facilities siting, with some

adopting a more “decide-announce-defend” approach, while others attempt a more voluntary siting approach. Independent of the approach, there have been varying degrees of success, and cases of failure, in particular, draw intense media attention and can exacerbate the problem. Evidence from the Asia-Pacific suggests that the siting problem has emerged independent of the form of government or level of economic development of nations in the region. The inability to manage conflicts in a timely fashion has serious implications for the achievement of national and regional policy priorities.

Research on facilities siting has both academic merit and practical relevance to various stakeholders. Since the 1980s, there has been a significant growth in the literature that deals with the origins and management of conflicts involved in siting facilities that are perceived to be public “nasties.” This book adds to the literature in three ways. First, it evaluates the extent to which a focus on siting in the Asia-Pacific can enhance our knowledge of siting theoretically and comparatively. Much of the facility siting literature originates from experience in North America and Europe. Many of the books on siting continue to focus on Western experience, although there have been some works on Asian experience (mainly in Japan and Taiwan). This book, by explicitly focusing on Asia-Pacific experience and covering countries such as China, Singapore, and Vietnam that have not been covered adequately in the literature, seeks to make a major contribution to the growing comparative siting literature. Second, it explores the extent to which the literature provides insights to policy practitioners involved in managing siting disputes. The siting literature is highly policy-relevant. Criticisms of bringing *policy relevance* back into social science do not hold up in the case of siting. Yet, ironically, there is little analysis on how the literature can assist policy makers in developing better siting policies and effectively managing siting conflicts. Third, it explores the scope of the subject matter covered by the siting literature. Much of the literature makes two critical assumptions. The first is that it presumes the only conflicts that matter are those involved between *host communities* and developers, whether they be private or public or some combination. The second is that it assumes the siting issue ends during the *preconstruction* stage. This book challenges both assumptions and stresses the importance of neighbouring communities in siting conflicts and the need to consider *postconstruction* conflicts, both of which can have significant implications for siting processes and outcomes.

S. Hayden Lesbirel, in the next chapter, provides the first extensive survey of the siting literature since the mid-1970s and focuses on the relationship between the production and use of knowledge in facilities siting. It suggests that the siting literature has developed into a fully fledged literature that uses a

full range of theoretical and methodological approaches to explore siting conflicts, and has produced a variety of middle-range theories to explain the origins and management of those conflicts. The literature is highly policy-relevant and can provide not only important conceptual insights to siting practitioners in terms of basic perspectives and orientations, but can also offer instrumental insights in strategic and functional terms. The challenge for the literature in the future will build on these achievements and address several theoretical and empirical shortcomings in ways that seek to fulfil the needs of siting practitioners.

In chapter 3, **Kunreuther** examines ways to better manage the transboundary risks associated with LULU. By understanding the nature of the problem from different stakeholders, this chapter suggests a framework for evaluating alternative siting strategies. It also explores how a siting authority could achieve consensus-building and examines the role of mitigation measures and compensation in the process. It then suggests a set of issues that need to be addressed regarding the involvement of the interaction among policy makers, risk management institutions, and the public in dealing with transboundary risk problems facing the public and private sectors.

Mitchell in chapter 4 focuses his discussion on the relationship between unwanted facilities and the concept of environmental justice. The ways in which governments in North America have interpreted and used environmental justice as one means to address issues related to LULUs and NIMBYs are examined. Furthermore, by examining examples in Canada, approaches (both traditional and voluntary) used in the siting process of LULUs are also explored. The chapter specifically identifies the importance of transparent principles, engagement of local communities from the outset in the decision process, innovative procedures (reverse Dutch auction), and opportunities to overcome mistrust.

LULUs certainly include a variety of facilities. Although a casino may not be a typical NIMBY example, the introduction of a casino into any society is controversial, as one would easily debate on the potential economic gain and job opportunity created versus the negative externalities and social costs. **Quah** and **Toh** in chapter 5 discuss this issue based on two casinos in Singapore and provide a forceful argument on the importance of public goods provision.

With few investigations on broader patterns by which authorities locate LULU facilities, **Aldrich** in chapter 6 calls for a reorientation of scholarship on land-use conflict to better capture methodological advances in the social sciences, including large-scale data analysis and political geography to bridge the knowledge gap. The new analytical tools uncover the strength of local

networks and social capital in the siting process. The paper concludes that civil society has an important role to play in determining the success of implementing new technologies, and thus highlights the importance of local communities' characteristics in determining which policy tools states use and their likely effectiveness in siting.

Following on from these conceptual developments in siting analyses, **Chiou** in chapter 7 examines which factors contribute to effective siting of large-scale projects in Taiwan. The study reveals that siting syndrome emerges in the field of Taiwan's site selection and construction of electric power stations and solid waste incinerators. Chiou calls for greater sensitivity towards the influence of *noneconomic* factors on siting process rather than placing too much attention on the effect of *economic* factors, which he believes has traditionally been the case in the literature. Noneconomic factors in the context of Taiwan are associated closely with the lack of public participation, credibility deficiency, and local politics. The chapter suggests that planners should use the community-governance approach to resolve the dilemma of siting facilities, with more emphasis on noneconomic factors.

Moving from Taiwan to Hong Kong, **Lam et al.** in chapter 8 attempt to determine how the public views LULU facilities and whether its perception of risks is related to the type of facility. The chapter elucidates how NIMBYism has arisen in the specific political, social, economic, and geographical context of Hong Kong and explores how siting conflicts might be resolved. The study also indicates that despite the concentration of LULUs in Tuen Mun, a district with a disproportionate share of these projects, local residents are not keenly aware of these facilities. This paper also argues that monetary compensation is of limited effectiveness in reducing public resistance.

With inadequate enforcement of environmental regulations by the authorities, community-driven regulation (CDR) or informal regulation is an alternative measure used to resist public facilities, such as landfills, after they are sited. In chapter 9, **Nguyen and Maclaren** examine four landfills in Vietnam that experienced significant opposition from local communities and assessed the measures taken by the local communities and the effectiveness of CDR. The importance of social cohesion, social capital, and their relationship is also discussed. This chapter indicates that a more formal mechanism is needed to involve the public in siting and operation of noxious facilities to avoid community opposition in Vietnam.

By focusing on benefits rather than risks that could be brought by hazardous facilities, voluntary siting is preferred over traditional, more coercive, methods. **Baxter** in chapter 10 evaluates factors leading to the success of voluntary siting. The chapter explores the case of Swan Hills, Alberta, Canada,

which is often portrayed as one of the earliest and most successful cases of voluntary siting in North America. However, he points out that siting cannot claim to have achieved justice as Swan Hills was not in a disadvantaged or vulnerable bargaining position. In fact, the perceived fairness of the original siting process is the strongest predictor of facility-related concern, both in the host and neighbouring communities. Implications for the viability of voluntary siting, the appropriate role for informed consent, and the associated role of scale are also discussed.

Ishizaka et al. in chapter 11 analyze factors relevant to the acceptance and risk perception of landfill site for municipal soil waste in Okayama city, Kurashiki city, and Yoshinaga city in Japan's Okayama prefecture. The study reveals that risk perceptions and trust in technology and standards are factors that influence the acceptance of landfills; while trust in technology and standards, and trust in response to accidents are the factors affecting the risk perception. The study reconfirms the importance of an open-door policy and daily communication between citizens and local government in the siting process.

In chapter 12, **Shaw** and **Huang** investigate siting a low-level radioactive waste repository in Wu-chiu, and find the way in which the compensation is provided. Fairness, trust in the developers, siting procedures, and income are important factors characterizing the public's perception of and attitudes toward the facility, while trusting in negotiators is the key way residents can make their decisions in Taiwan. The result is compared with cases in the United States, Switzerland, and Japan. The chapter also identifies differences among the cases in relation to social capital, including civic duty, social pressure, and trust in the developers. It concludes that social capital is an important aspect of public opinion in relation to the NIMBY phenomenon.

Yang, in chapter 13, studies the emergence of environmental nongovernmental groups in siting NIMBYs in China. Based on two cases, this chapter concludes that, given the rapid economic development and adoption of more open and transparent policy, environmental nongovernmental groups are able to exert their influence by stressing environmental rights and social justice, leading to a postponement of a key hydroelectric development in Nujiang and the resiting of a chemical plant in Xiamen.

By exploring siting problems in the context of the relationship between the knowledge production and use in the Asia-Pacific, this book suggests expanding the literature's subject matter to more fully incorporate the impact of neighbouring communities and post-siting conflicts on understanding the origins and management of siting outcomes. Doing this will enhance the conceptual and instrumental utility that the literature offers to stakeholders involved in siting processes not only in the Asia-Pacific but elsewhere as well.