

Dialogues of Sustainable Urbanisation

Social Science Research and Transitions to Urban Contexts

Edited by
Jenna Condie and Anna Mary Cooper

DIALOGUES OF SUSTAINABLE URBANISATION:
SOCIAL SCIENCE RESEARCH AND
TRANSITIONS TO URBAN CONTEXTS

EDITED BY JENNA CONDIE AND ANNA MARY COOPER

Dialogues of sustainable urbanisation: Social science research and transitions to urban contexts

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WELCOME TO THE BOOK OF BLOGS

JENNA CONDIE, UNIVERSITY OF WESTERN SYDNEY, AUSTRALIA, AND ANNA MARY COOPER,
UNIVERSITY OF SALFORD, UK

Welcome to the book of blogs, a collection of diverse works from researchers across the globe who all have something important to say about the way in which our world is changing and how we can strive towards a more sustainable future. This book emerged from an International Social Science Council (ISSC) meeting in November 2014 of early career researchers, who gathered in Taiwan to discuss transitions to urban contexts from a social science perspective. The seminar involved weeklong discussions about sustainable urbanisation and the contribution of social science research to sustainable urban futures. Yet a week was not long enough to hear the diverse perspectives within the room, let alone incorporate the plethora of viewpoints beyond it. Within the ISSC discussions we concluded that one definition of sustainable urbanisation is not possible and that sustainable urbanisations are in play. The transitions to urban contexts taking place, and those that are anticipated within our futures, were characterised in terms of their plurality, diversity, fluidity, and change. This book embraces such uncertainty by welcoming dialogues, rather than a monologue, on the urbanisation processes taking place across the world and what to do about the places we build, and the impacts of human activity on the environment, health and climate.

This book is also about being heard. The call for contributions was therefore open to people at any career level, based within any organisation and not restricted to academics. We took a crowdsourced approach to generate a book of blogs with the aim of breaking through some of the boundaries set by traditional publishing formats. Therefore posts have not been peer-reviewed in the traditional way and only 'light touch' editing has taken place to ensure that individual voices remain as unfiltered as possible. Despite this lighter touch approach there were still some posts that have not been included in the final version, as there was a need to guarantee that clarity and a standard of writing was present to help ensure the book is well used and referenced by all. Relatedly, we also recognise that publishing this book in English excludes many voices and frames sustainable urbanisation in that meaning system; but perhaps this could be a future project for someone to take on and produce a multiple language format. We hope that the blogs within the book can be used and referenced accordingly to support work, lead to collaborations, or spark ideas for future initiatives. Within the e-version of this book, many authors have included hyperlinks; we recognise these will not work in printed copies but would encourage you to also engage with the e-version to access additional material in blogs of interest.

The strength of this book and the interest in this area is highlighted by the overwhelming

response received in relation to the call for contributors. This book includes the work of over 80 researchers. To help facilitate readers going through the book it has been organised into sections: definitions of sustainability, urban governance, engaged citizens, urban divides, movement and mobilities, China, making places, environment, low carbon futures, alternative economies, and digital futures.

As the editors we would like to thank all those who have taken the time to contribute and responded so well to emails. It has led to an eclectic mix of articles that cover aspects of sustainable urbanisation globally and in relation to a huge variety of topics. We would also like to thank Kandy Woodfield, who edited the NSMNSS Book of Blogs for guidance and reassuring words through this process and the ISSC for their support in making this project happen.

Finally, on behalf of all those who have included their work here, we really hope that you enjoy the read; dip in and out, and use it to encourage others to blog their work. We hope it inspires other collections on urban and environmental issues in the future. Each post is accompanied with the author's contact details so that you can get in touch with them – long may our dialogues continue.

FOREWORD

LAURA VAN VEENENDAAL, INTERNATIONAL SOCIAL SCIENCE COUNCIL

In November 2014, 20 early career social scientists from all over the world and from a wide range of academic disciplines met in Taipei, Taiwan, for a seminar on sustainable urbanization. They were there as part of the World Social Science Fellows Programme of the International Social Science Council (ISSC), to push forward the limits of knowledge on sustainable urbanization and make plans to keep doing so after the seminar. This seminar was the third of a series on sustainable urbanization, each bringing together 20 early career social scientists from around the world.

This book of blogs is inspired by discussions in Taipei. It curates over 80 contributions, from Fellows that took part in the seminar, and from others. The contributions showcase comments, research results, and thoughts on sustainable urbanization. They are often innovative, provocative, thought-provoking, exciting. We believe that this book shows the richness of the research currently undertaken by an emerging generation of social scientists tackling one of the most pressing challenges of our times, sustainable cities.

The ISSC is proud that this volume started at one of its World Social Science Fellows seminars, and thanks Fellow Jenna Condie for having initiated the project.

Working closely with us on the organization of this series of seminars were the former International Human Dimensions of Global Environmental Change Programme (IHDP, now part of Future Earth) and the Comparative Research Programme on Poverty (CROP). We also wish to thank our generous hosts, the National Taipei University and the Integrated Research on Disaster Risk Programme's International Center of Excellence, with the support of Academia Sinica. The Swedish International Development Cooperation Agency (Sida) is the generous supporter of the World Social Science Fellows Programme as a whole.

This book is now out in the world and we hope that it is only the start of something bigger. Please enjoy, reflect, nod your head in agreement or violently disagree with any or all of the contributions it contains and then share. Share (twitter hashtag #ISSCBookofBlogs) and keep this dialogue on sustainable urbanization from a social science perspective moving forward.

Laura van Veenendaal

World Social Science Fellows Programme manager



Laura manages the ISSC's World Social Science Fellows programme which aims to help build the next generation of social science leaders. Before joining the ISSC in January 2012, Laura worked as a policy officer and manager at the University of Utrecht and as a policy officer for the Royal Netherlands Academy of Arts and Sciences. She lives in Amsterdam and divides her working life between there and Paris.

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FOREWORD

ETIENNE NEL, COMPARATIVE RESEARCH ON URBAN POVERTY PROGRAMME (CROP)

Coping with the rapidity of both change and growth is and will increasingly prove to be a significant challenge for cities, their residents and for national governments in the future. Within this context citizen participation, sound local governance and accountability, the pursuit of environmental and resource sustainability and inclusive economic development and employment creation are critical if we are to ensure a just and sustainable future. At a broader level 2015 is a crucial year in terms of development policy as it will witness the transformation of the Millennium Development Goals into the Sustainable Development Goals, which, as the High Level Panel on the Post-2015 Development Agenda argues must go beyond the MDGs to reach the poorest and most excluded.

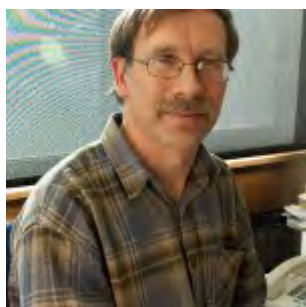
As part of the on-going debate about our collective urban future, continual dialogue and debate is essential to help ensure the sound evaluation of evidence, the interrogation of new interventions and the derivation of the most appropriate policy support. In this regard, *Dialogues of Sustainable Urbanisation* contributes to the broader processes of urban debate. Drawing on the skills and insight of young researchers and policy makers globally this work allows for cross-national comparison and for a deeper understanding of how best humanity can pursue options which facilitate the pursuit of sustainable urbanisation.

Achieving an endogenous growth trajectory which is environmentally sustainable, socially just and economically inclusive will require active commitment on the part of governments and other institutional role-players which parallel and support local citizens to engage more effectively in a process of jointly finding solutions to the challenges of growth and development. Sustainable urban development will require a conceptual framework which simultaneously considers the:

- – Macro development framework
- – The urban context
- – Urban service delivery and investment
- – Social needs and opportunities
- – Economic opportunities and challenges
- – Institutional architecture and urban policy, decentralization and legislative reform.

The promotion of debate and providing channels for the dissemination of the creativity and

insight of young researchers and policy makers, as this volume helps to achieve, is an important step in our joint negotiation of our collective urban future.



Etienne Nel

Steering Committee Member, CROP (Comparative Research on Urban Poverty Programme)

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CHAPTER 38.

GOVERNANCE OF SUSTAINABLE DEVELOPMENT IN CHINA: A CASE STUDY OF THE BAMBOO SHOOT PRODUCTION IN LIN'AN COUNTY, CHINA

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Bamboo shoot production has presented a shift of human-nature relations under China's modernization. Current research on bamboo shoots in China mainly focuses on the economic values, model simulation, forestry management, taxonomy, and policy implications of the bamboo production in rural areas (Chan, 2012). However, there are lacunae in both literature and approaches to understand China's bamboo production industry in relation to the linkages between governance and sustainable development. This research critically examines the governance of sustainable development of the bamboo production industry by addressing how the local government and bamboo farmers make use of bamboo shoots to achieve sustainable development in Lin'an County, China.

Addressing the governance of sustainable development in the bamboo production industry

Governance is a fundamental concept and theoretical lens to understand how governing institutions govern the bamboo farmers and their economy through direct and indirect rules and internalization of rules and regulations (Pierre and Peters, 2000, p.14). Although the term "governance" is used to understand the role of state and farmers in dealing with environmental problems (Stocker, 1998; Evans, 2012), there is a weak bridging between the theoretical and empirical context of both environmental governance and sustainable development (Jordan, 2008). Particularly, how state and farmers implemented forestland responsibility policies and manage bamboo resources to struggle for sustainable development are ignored. This research would take Jordan's argument further by bridging the theoretical context of both governance and sustainable development to examine the collective actions of local government and farmers in the bamboo shoot production industry.

Current sustainable development debates in China can be summarized into three major facets: the debates on the role of state and local, the centrality of human and nature, the approaches of pro-growth and slow growth to achieve sustainable development. In particular, the debates among ecological modernization (Mol, 1995), steady state economy (Daly, 1992) and eco-Marxism (O'Connor, 1998) to achieve sustainable development are in line with my research enquiries. The ecological modernization stresses increasing production capacity to trickle-down resources to solve environmental problems (Buttel, 2001; Spaargaren & Mol, 2009). However, eco-Marxism

argues that market efficiency cannot solve environmental problems (Harvey, 1996). Steady-state economy emphasizes the strong government role to maintain a proportional growth of economy. There are two major points which should be stressed before searching for sustainable policy options. First, the mentality of “development first and rectifying the environment later” dominated the government policies. Second, local government plays a strong role in regional development. Based on these contexts, this research critically examines how local government and non-state actors manage land and bamboo resources to set priorities on bamboo cutting, and to conduct cross-regional bamboo construction material trading networks in China. To answer this question, this research examines governance at the county level, which is a key level of governance for the practice of sustainable development in China. Data has been collected through surveys, in depth interviews and longitudinal ethnographic observation.

Bamboo shoot production in Lin'an County

China is the largest bamboo product producer and exporter in the world (Marsh and Yang, 2008), while Lin'an is the biggest bamboo shoots' production center, while the total areas of bamboo plantations comprise 65,833 hectares (Zhu and Yang, 2006). According to the Lin'an Forestry Bureau (2008) there are approximately 50,000 bamboo shoot farmers, 4,000 processing workers and 6,000 people participating in bamboo shoot marketing.

Growing bamboo shoot as a spatial fix to capitalise land resources

In the early 1980s, the Forest Land Responsibility System was implemented. The Lin'an state distributed collective-owned lands to individual farmers. Land distribution provided the right of use and right to derive income for individual farmers. This spatial measure not only increased farmers' incentive to invest in the bamboo shoot production but also increased the forest coverage. From 1983 to 2005, the total bamboo shoot forestlands increased from 1,878 hectares to 32,000 hectares (320 km²) respectively (Zhu and Yang, 2006). The total bamboo forests increased around 17 times which was the equivalent to 1/5 the size of greater London (1580km²) in 2005. Growing bamboo shoots alleviated much of the farmers' poverty and greatly improved their living conditions (For instance, the average incomes of bamboo shoot farmers substantially increased: 317%, from 1995 (3,336 Yuan) to 2011 (13,926 Yuan) (Lin'an Forestry Bureau, 2012). The average rural poverty rate decreased from 60% in 1980 to 5% in 2000 (Lin'an Forestry Bureau, 2012). However, Bamboo shoot farmers derived a substantial income from fresh bamboo shoot selling and spent it on building “bamboo shoot houses” (???), this literally means farmers earned the money from bamboo shoot cultivations to build their modern flat-top houses. One bamboo shoot farmer Mr. Liu from the Xiao Gao village described his material accomplishments:

In the 1970s, we used the sand, mud, and some concrete to build the houses. Until 1988, most of the farmers started growing bamboo shoots and get[sic] rich, they could enjoy better livelihood by using bricks to build the modern flat top houses, we called it a bamboo shoot house (Interview with bamboo shoot farmer Xia Gao village F05, 2012).

From the above quotation, this farmer illustrated that growing bamboo shoots not only brought economic prosperity in rural Lin'an but also transformed the farmers' average incomes and improved their housing conditions, and material wellbeing (see Figure 1).

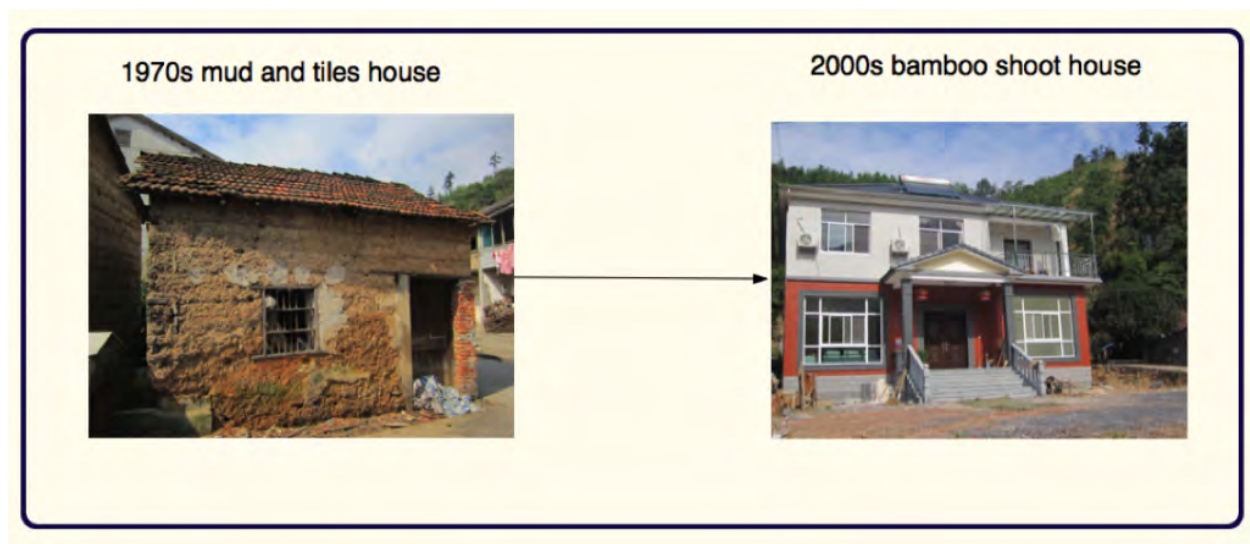


Figure 1 Improvement in Housing Conditions (Source: Author's collection)

Promote early shooting technology to utilize bamboo shoot production capacity

In the mid-1990s, the local government further improved the bamboo shoot productivity by promoting early shooting technology (Xu et al., 2008). The Lin'an Forestry Bureau promoted this technology in three major ways: (1) offered technological trainings and workshops, (2) provided subsidies to encourage farmers to cultivate bamboo on hilly slopes, and (3) established demonstration households in different villages to bamboo cultivation demonstration units to increase bio-diversity in the bamboo plantations. The processes of the early shooting technology included applying plenty of chemical fertilizers, rice chaff, chicken deposits, and sawdust to increase the soil temperature in order to extend the growing seasons during the winter period. This blanket effect produced suitable temperatures and humidity to cultivate bamboo shoots in the winter season. According to Zhu and Yang (2006), with the applications of this early shooting technology, the total bamboo shoots' production increased from 1, 421 tons in 1983 to 107, 150 tons in 2002.

Challenges of sustainable development for this pro-growth model

However, with plethora application of fertilizers, this created a pro-growth model of bamboo cultivation and induced monoculture and pesticides usage problems. According to Zhu and Yang, (2006, pp.28-29), the drop of bamboo shoot production in 2002 from 115, 000 tons to 105,000 tons was related to the manipulation of the growing season of bamboo shoot production which increased the vulnerability of bamboo forestry to climate changes, pests, and diseases. According to a Lin'an Forestry Bureau officer Mr. Lin (pseudonym) commented that, "with using large amounts of fertilizers has caused 70% of the *Ph. Praecox* bamboo shoot lands to be suffered from medium to high degree of degradation" (Interview with Mr. Lin, G02, 2012). The problems of monoculture increased ecological vulnerability and instability in the bamboo production industry. Zhu and Yang (2006, p.29) further argues that "76.7% of the total 20,000 hectare of the shoot type is *Ph. Praecox*" and the occurrence of the bamboo's diseases and pests became an alarming problem. The remedial measure for local farmers to manipulate the bamboo ecosystem is to use pesticides. This not only causes the bio-accumulation of toxins in the food chain but it also causes cyanobacteria bloom when pesticides run-off from the field into the nearby river in Lin'an (Ni et al., 2012).

Conclusion

This research concludes that the local government and non-state actors perceive bamboo resources as commodities during the market reform period. Local government contracted collective forestlands to individual farmers, which implied a change from use value to exchange value of land. The land transformation caused the changes of the human-nature relationships. On the one hand, bamboo shoot farmers perceived bamboo forests as commodities in exchange for monetary and material benefits. On the other hand, the local government used bamboo cultivation as a spatial fix to increase forest coverage and solve rural poverty. Both the local government and farmers have treated the bamboo shoot resources as a growth engine for economic development which is managed and manipulated to boost the economic productivity.

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Author Biography

Kin Wing Chan is a PhD in China's Environmental Governance and Policy at the School of Planning and Geography, Cardiff University, U.K. His research focuses on incorporating grassroots' voices with policy analyses, investigating the material utilization of bamboo to promote China's sustainable development, and examine how local regulatory structure transforms farmers' practices in both China and Hong Kong. His recently paper (Forthcoming, June 2015) with Byron Miller, "Capitalist Pigs: Governmentality, Subjectivities, and the Regulation of Pig Farming in Colonial Hong Kong (1950-1970)" is published in *Environment and Planning D: Society and Space*.

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REFLECTIONS

“Dialogues of Sustainable Urbanisation is a confetti of brilliant ideas put together by bright scholars from around the world. It is fraught with broad and burning topical ideas that try to close the age-long gaps separating social science urban scholars and researchers. This book is useful for policy makers, development institutions, civil society groups and casual readers interested in knowing the current debates on urbanisation.”

Aliyu Salisu Barau, ISSC Sustainable Urbanisation Fellow, Research Associate, Urbanisation and Global Environmental Change Project, Universiti Teknologi Malaysia, Malaysia.

“The transformation to a globally sustainable future is the key challenge of our times and requires brave, innovative thinking across all sectors of society. This book of blogs gives a fascinating insight into the breadth and scope of sustainability efforts currently underway and highlights the potential for new and exciting research collaborations at a global scale.”

Craig Woolf, Director Northern Community Power and PhD researcher, School of the Built Environment at Heriot-Watt University, UK.