

**E · S · R · C**  
ECONOMIC  
& SOCIAL  
RESEARCH  
COUNCIL

## ESRC Research Seminar

# The Governance of Eco-City Innovation



### Event 1

Friday, 20 May 2011, 10.00 am - 4.30 pm  
Boardroom, University of Westminster,  
309 Regent St., W1B 2UW London

UNIVERSITY OF  
INTERNATIONAL  
INNOVATION  
WESTMINSTER 

INTERNATIONAL  
ECO-CITIES  
INITIATIVE

[www.westminster.ac.uk/ecocities](http://www.westminster.ac.uk/ecocities)

## Speakers' Abstracts & Biographies (alphabetical order)

### Evaluating governance and policy for low carbon transitions in the face of complexity: a study of the zero carbon homes policy agenda for England

*Dan Greenwood*

#### **Abstract**

Research from various research traditions in the social sciences, including geography, sociology and technology studies, offers important insights into the complex, often contested character of the socio-technological choices involved in achieving a transition to a low carbon economy. Yet there remains a need for detailed evaluative analysis of how governments address the policy decisions that are of pivotal importance for shaping this transition. This project applies an analytical approach for addressing this need, which focuses not just on the 'socio-technical' but also the *economic* dimensions of the challenge for policy-makers, with 'economic' being understood in a broad sense, to incorporate the significance of non-monetary criteria.

Applying a theoretical approach developed in previous research by this author, the approach focuses on the effectiveness of governance and policy processes in facilitating 'coordination' in the face of the complex choices and trade-offs involved in defining policy. A detailed empirical application is presented concerning policy in England for the transition to low and zero carbon homes. Key contested dimensions of this policy issue are identified, drawing from an analysis of how various stakeholders involved in the formation, application and delivery of policy frame this complex policy challenge. A comparison of stakeholder framings yields insights into the extent to which policy processes capture the various kinds of expert and locally situated knowledge and information involved in designing and delivering sustainable built environments. The analysis draws from policy documents, practitioner seminars, as well as over forty interviews, including with numerous leading industry professionals with a direct involvement in policy development. Analysis of the policy process is combined with a detailed focus on stakeholder views about the outcomes and impacts of policy. This, it is argued, enables a richer, potentially interdisciplinary analysis of both policy-making and of the challenges facing practitioners seeking to achieve sustainability objectives.

*Dr. Dan Greenwood is a Senior Lecturer and a participant in the Governance and Sustainability research and teaching programme in the Department of Politics and International Relations at University of Westminster.*

---

### Eco-cities: mapping the field

*Simon Joss*

#### **Abstract**

There has been a growing international interest in eco-city developments in recent years, with many an initiative vying for global attention. However, defining the 'eco-city' is not immediately straight forward. How to conceptualise what makes an eco-city; where to draw the boundaries between an 'eco-city' and 'normal' city; how to measure and evaluate eco-city achievements; this and more is yet to be fully analysed and understood. It may, therefore, be useful to conceive of eco-cities initially as a framework of concepts, models and practices of (environmental, economic and social) sustainability at the urban scale, rather than in terms of a precise entity. Several relevant eco-city dimensions can then be identified relating to: (physical) urban structures and resulting relationships (e.g. neighbourhood-city-region); policies (including city-level initiatives, national programmes and international networks);

socio-political discourses (relating, for example, to 'eco-security', or national competitiveness); and normative concepts (e.g. sustainable development, resilience). Building on this, a useful conceptual and analytical perspective is to consider eco-cities as dynamic, co-evolutionary innovation processes governed by particular mechanisms and processes of steering, co-ordination and implementation. In turn, this should help to define and develop a relevant agenda for both future research and policy-making.

*Professor Simon Joss is the Director of Research in the School of Social Sciences, Humanities and Languages at the University of Westminster. He is a member of the University's Governance & Sustainability Programme, and co-director of the International Eco-Cities Initiative (with Johns Hopkins University, and the Smithsonian Institution). He is co-ordinator of the multi-centre ESRC Research Seminar Series The Governance of Eco-City Innovation. He is a member of the Technical Resource Panel of the Clinton Foundation's Climate Positive Development Program.*

---

## **Why do cities become Eco-Cities? Some conceptual considerations**

*Gerd Lintz*

### **Abstract**

Local authorities are increasingly seen as highly important for achieving ecologically sustainable development. Drawing on a current research project the presentation seeks to map the factors which influence the degree of environmental orientation of local policies from a conceptual perspective. Generally based on actor-centered institutionalism (Scharpf 1997) the outcome of environmental political decision-making is interpreted as a result of the interplay of actors, actor constellations, modes of interaction, and the institutional framework. All these factors are seen as interdependent. In particular the role of actor constellations is highlighted by differentiating between environmental measures benefiting the municipality itself and those benefiting the whole world. The approach tries to go beyond the mechanistic view of policy-making and includes the concept of social learning with regard to knowledge and values. In conclusion the presentation summarises the conceptual considerations of why cities (want to) become Eco-Cities. The conceptual analysis is also based on the capacity approach for environmental policy (Jänicke 2002), and the concept of environmental policy integration (Nilsson 2005).

*After the study of economics, Gerd Lintz started his career as an assistant to the Chair of Urban and Regional Economics at the University of Trier; title of dissertation (PhD thesis): "Basic principles of the coordination of environmental policy, regional policy and spatial planning". Since 1995 he has worked as a research associate and project leader / senior researcher with the IOER in Dresden, first in the Department of Building Ecology, then in the Department of Regional Development and Landscape Ecology, and currently in the research area Landscape Change and Management. In recent years he has come back to his original research interests: Ecological issues in urban and regional development from the perspective of environmental governance and policy integration; moreover: environmental rehabilitation and economic development in old industrial regions.*

---

## History of Ecocity Initiatives in Vancouver

Jennie Moore

### **Abstract**

Vancouver, Canada is often cited in the literature as a model sustainable city. Its evolution follows an interesting relationship with the concept of the Eco-City. Vancouver's urban sustainability can be tracked to the 1970's and the development of the South False Creek neighbourhood as well as the launch at the regional scale of the Livable Region. These initiatives precede and exemplify ecocity concepts later captured by Richard Register in his books: *Ecocity Berkeley* (1987) and *Ecocities: Rebuilding Cities in Balance with Nature* (2006). In an evolving iterative relationship, it was Register's Ecocity Berkeley project that then inspired green city activists to form the Vancouver Ecocity Network in 1994. A goal was to bring to fruition a sustainable community adjacent to the South False Creek neighbourhood. That project culminated in Vancouver's Olympic Athlete's Village. By 1996, the Livable Region Strategy was adopted as the official growth management strategy for the region. The Livable Region Strategy offers a poly-centre approach to development, linked by rapid transit with interspersing protected green zones dedicated to agricultural and natural habitat protection. In 2008, the City of Vancouver adopted the Ecodensity Charter that calls for its next City Plan to be an Ecocity Plan, and in 2010 the Ecocity International Framework and Standards initiative was launched by Ecocity Builders in collaboration with a handful of Vancouver's Ecocity Network activists, advocates and some of the original Ecocity Network activists and academics from both the University of British Columbia and the University of Montreal.

*Jennie Moore is Director of Sustainability at the British Columbia Institute of Technology and a PhD Candidate at the University of British Columbia. She studies under Professor William Rees using the ecological footprint linked to an ecocity framework to assess opportunities that the City of Vancouver could pursue to enable lifestyle choices that support the goal of One Planet, or One Earth, Living. In 1994 Jennie was the founding coordinator of the Vancouver Eco-city Network. From 1995 to 2006 she worked as a planner and subsequently a manager for Metro Vancouver, overseeing climate action initiatives and the Sustainable Region Initiative.*

---

## The Ideology of the Eco-City

Elizabeth Rapoport & Anne Lorene Vernay

### **Abstract**

This paper presents the results of a discourse analysis of documents describing six different eco-city projects: Dongtan Eco-City, Masdar City, Sonoma Mountain Village, Hammarby Sjöstad, Eco-village Ithaca, and Malmö bo01. The aim of the research was to uncover the diversity underneath the various uses of the term eco-city, and to determine the extent of convergence or divergence in the way projects conceive of what an eco-city should be. The research looked at five categories of urban sustainability discourse: the aspect of sustainability emphasised, whether eco-city projects saw themselves as a model for future urban development or as an educational tool, the way in which eco-cities proposed to make urban living more sustainable, the extent to which projects looked at achieving sustainability by design or through governance and management, and the type of actors that play a role in the eco-city. The results suggest that there is a great deal of diversity among projects considered to be eco-cities. In this sense, we argue, it is better to think of the eco-city as an ambition or objective which there will be multiple ways to achieve.

*Elizabeth Rapoport is a doctoral candidate in Urban Sustainability and Resilience at University College London. Her research is on the way in which private sector consultants engage in the design of new sustainable cities in the developing world. Prior to beginning her PhD, Elizabeth worked as a planning consultant. During that time she worked on projects in a diverse range of countries including Saudi Arabia, The Philippines and Rwanda, for clients including city governments, The World Bank and UN-Habitat. Elizabeth holds a MSc in Regional and Urban Planning Studies from the London School of Economics.*

*Anne Lorene Vernay is a third year PhD student in Delft University of Technology in the section Technology dynamics and Sustainable Development. For her research, she studies attempts made by municipalities to combine technological systems in order to close the material and energy cycle. Approaching these attempts from a social perspective, she analyzes how network of actors develop around these ideas in order to identify what are the barriers and the opportunities for such practices.*

---

## **One Planet Communities: the BioRegional approach**

*Sue Riddlestone*

### **Abstract**

How will we know when we have achieved sustainability? Sue Riddlestone will explore approaches and results from BioRegional's work to create communities where it is easy for residents to live happy, healthy lives within their fair share of the world's resources in the UK and internationally. Looking at a city scale, Sue will also outline the findings of the Capital Consumption report which modelled how Londoners could achieve a 90% reduction in their consumption based CO2 emissions by 2050.

*Sue Riddlestone is Executive Director and co-founder of BioRegional Development Group, an award winning social enterprise which she co-founded with her husband Pooran Desai in 1994. BioRegional's mission is to show what our truly sustainable future might look like by implementing real life, cost effective working examples of sustainable communities, products and services where we are living within our fair share of the world's resources. This includes the BedZED eco-village in London where Sue lives and works, which was voted fourth most influential green building last year by US Architect magazine. Sue has been a London Sustainable Development Commissioner since 2002 where she wrote the influential paper "all new homes should be zero carbon" in 2003, which became government policy in 2006. She also co-wrote the One Planet Olympics sustainability strategy for London's 2012 Olympic bid. Sue is co-author of "BioRegional Solutions" and in 2009 Sue and her husband Pooran were awarded the prestigious Skoll Award for social entrepreneurship.*

---

## **Eco-Cities and Sustainable Communities: What's in a Name?**

*Mark Roseland*

### **Abstract**

This presentation begins with a review of my book *Eco-City Dimensions* (New Society, 1997) and related article from *Cities* journal (1997), which examine four broad categories of eco-city or sustainability literature by author type: designers, practitioners, visionaries, and activists. These are each then compared by orientation, focus and means, determining that the "eco-cities" theme is a big umbrella situated in a complex array of relevant variations.

That said, there are problems inherent in using “eco-cities” to name this big umbrella. The term “eco-cities”:

- 1) does not acknowledge the majority of small and mid-sized human settlements that don't see themselves as “cities,” even if we as researchers do;
- 2) does not relate to the 25+ year discourse of sustainable development (widely understood to have 3 components: environment, economy, and society); in particular, eco-cities only refer to one dimension of settlements; and
- 3) is not normative beyond the “eco”- dimension.

In my book *Toward Sustainable Communities* (New Society 2005, 2012) I present an alternative that is normative and more broadly prescriptive regarding the dimensions of settlements.

However we name it, a critical challenge before us is mobilizing collaboration between researchers and practitioners. With that in mind, I am introducing a new network to catalyse and facilitate such collaboration. To be launched globally at Rio+20 and tentatively called the Sustainable Communities Research Network, I am interested in soliciting the participation of this audience as well as your views about how it is ultimately named.

*Dr. Mark Roseland is Director of the Centre for Sustainable Community Development (CSCD) and Professor of Resource and Environmental Management at Simon Fraser University in Vancouver, Canada. He lectures internationally and advises communities and governments on sustainable development policy and planning. Dr. Roseland's books include Eco-City Dimensions: Healthy Communities, Healthy Planet (New Society Publishers, 1997), and Toward Sustainable Communities: Resources for Citizens and Their Governments, with a fourth edition to be published by New Society in 2012. He is active in international partnerships for collaborative research and knowledge mobilization for sustainable community development.*

---

## **Governing for Sustainable Urban Development**

*Yvonne Rydin*

### **Abstract**

My talk will present a network analysis of the problematic of governing for sustainable urban development. It will look at this in three different sectors: the economic realm of the urban development process; the role of communities in civil society; and the policy networks of urban governance. In each case I will raise key questions for future practices using the example of how urban energy systems can be restructured for a low carbon future. This draws on a current EPSRC-funded research project, CLUES or Challenging Lock-in through Urban Energy Systems.

*Professor Yvonne Rydin is Professor of Planning, Environment and Public Policy at University College London's Bartlett School of Planning and Director of the UCL Environment Institute. She specialises in urban and environmental planning, governance issues and sustainable cities. Her current research is on sustainable energy and the built environment and she has also worked on planning for sustainable construction and design, and the implementation of local sustainability indicators. Her latest two books are Governing for Sustainable Urban Development (published by Earthscan) and The Purpose of Planning (published by Policy Press). She is an accredited Mediator and a member of the Royal Institution of Chartered Surveyors.*

---

## The Brøset-Trondheim eco-city initiative

Eli Støa

### **Abstract**

This paper will present the early planning stages of a new urban development project in Trondheim, Norway. The vision for the Brøset area is to reduce the carbon footprint per person from today's 8-11 tons to 3 tons CO<sub>2</sub>-equivalents per year. It is agreed that this goal can not be reached by use of technical and architectural interventions alone, but that the interventions will have to be linked to lifestyle changes among the future residents. A second objective is thus that Brøset will become "an area where it is easy to live an environmentally friendly 'low-emission' life". With this formulation, the Brøset project proves to have a slightly different approach than most other recent urban development projects with high environmental ambitions. This approach is to a large degree due to the close relationship between an interdisciplinary research group based at the University in Trondheim and the planners at the city planning office.

The paper will mainly deal with how the collaboration between researchers and planners has influenced the definition of objectives for the Brøset area as well as the planning process and the results so far. The claim is that the role of the research group has been vital for the positive progress in a project with high ambitions and elements not normally included in urban planning projects. However, this kind of alliance also raises some issues worth questioning which will be outlined and briefly discussed.

*Eli Støa is an architect and has since 2006 been a professor in Housing Design and Research at the Faculty of Architecture and Fine Arts, Norwegian University of Science and Technology (NTNU), Trondheim. She has a background from 20 years research within architectural, social and cultural aspects of housing and homes and has more recently been focusing on sustainable residential cultures. She is currently in charge of the research project "Towards carbon neutral settlements" funded by the Norwegian Research Council. Støa is in the academic year 2010/2011 based at the University of Westminster, School of Architecture and Built Environment, as a visiting scholar.*

---

## Eco-cities in China: Dream or Reality?

Fangzhu ZHANG

### **Abstract**

During the past three decades, China's fast economic growth and rapid urbanisation have resulted in unsustainable development in economic, social and environmental respects. Today, with increasing energy demand, climate change, labour cost and global financial crises, China's government has committed to develop a sustainable and low-carbon economy as a top policy priority. A "Green GDP" with balanced economic growth and environmental quality has been targeted as a new economy measure from central government to cities and regions in China. Eco-innovation technologies have been widely applied in eco-city planning. Eco-city plans are booming in China now. Some cases of eco-cities practices including success and failure will be examined in this study to explore the challenges and discourse of China's sustainable development. Chinese cities were used as the instrument for fostering economic growth during its rapid urbanization. Post-reform urban transition has created intense inter-city competition, which requires localities to act entrepreneurially to focus on economic growth through place promotion or city re-branding. It remains unclear whether 'eco-city' is an innovative label or an instrument for local government to pursue its urban development strategy? Will eco-cities in China, like Dongtan,

remain only a dream as the future city of China? Eco-innovations are essential to meet carbon-neutral aspirations of eco-cities; however, most of these technologies are not currently commercially affordable. This limits the feasibility to turn eco-cities from the dream into the reality in some cases. Will China's recent leapfrog in eco-innovation technologies turn China's sustainable development into a substantial reality?

*Dr. Fangzhu Zhang is a Research Associate at School of City and Regional Planning, Cardiff University. Her main research interests include studies of innovation and biotechnology, China's innovation system, redevelopment and Chinese cities. She co-edited a special issue on "Planning the Chinese City" in Town Planning Review (2008); published several papers in Regional Studies, European Planning Studies, Progress in Planning and Geography Compass. She has been involved in several research projects, including Eco-innovation and entrepreneurship in Europe and UK-China sustainable development dialogue. Currently, she is working on ESRC/DFID project on urban redevelopment under China's rapid urbanization.*