What does a review of literature on urban sustainability reveal about the study and practice of urban sustainability?

3rd Annual Interdisciplinary Ph.D. Workshop in Sustainable Development
Columbia University, New York City

12 April 2013

Paul Fenton, Ph.D. Candidate
Environmental Technology and Management
Linköping University
paul.fenton@liu.se
Aims

• Clarify how concept of urban sustainability is used in academic literature
• Provide insights into “real world” practice (as observed and described by academics) of urban sustainability and academic practice of studying urban sustainability
• Inform research design for Ph.D. studies

Scope

• Non-comprehensive review – focus only recent publicly-available articles found in Scopus database
• Does not cover books or book chapters
• Articles from many disciplines = less focus on theories, more on themes
Method

• Content analysis
  – Type, role and purpose of literature
  – Methods or analytical tools
  – Themes or topics addressed

Note: the focus is on content, analysis and results, i.e. what does the literature say, not what theories do the authors use?

• Avoiding definitions
  - narrow focus on urban sustainability not variations
  - cover the spread rather than cover everything
  - not aiming to provide definitions, but to explore use of concept
Literature review

• Indicative search on Scopus, 10 September 2012
• TITLE-ABS-KEY("urban sustainability") AND SUBJAREA(mult OR arts OR busi OR deci OR econ OR psyc OR soci)
• 320 results (261 articles), more articles in recent years. Most frequent authors M. Holden and P. Nijkamp (5 each)
• 85 most recent selected for study; of these 38 unavailable/abstract only/not relevant.
• Content analysis of 47 articles.

Source: Fenton (2013, forthcoming)
<table>
<thead>
<tr>
<th>Category</th>
<th>Governance and participation</th>
<th>Method</th>
<th>Physical planning</th>
<th>Strategic planning</th>
<th>Theory</th>
<th>Other</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Single case study</td>
<td></td>
<td>8 studies</td>
<td>3 studies</td>
<td>6 studies</td>
<td>2 studies</td>
<td>4 studies</td>
<td>0</td>
</tr>
<tr>
<td>Type of cases</td>
<td></td>
<td>5 on single municipalities; 1 on sub-national region in single country; 1 project in single country; 1 continental</td>
<td>2 on single municipalities; 1 on national approach</td>
<td>Different single municipalities</td>
<td>Different single municipalities</td>
<td>Different single municipalities</td>
<td>n/a</td>
</tr>
<tr>
<td>Multiple case study</td>
<td></td>
<td>4 studies</td>
<td>0</td>
<td>3 studies</td>
<td>1 study</td>
<td>1 study</td>
<td>2 studies</td>
</tr>
<tr>
<td>Type of cases</td>
<td></td>
<td>3 focus on municipalities (2 national, 1 cross-border); 1 on single country municipal network membership</td>
<td>n/a</td>
<td>2 focus on municipalities in a single country; one on single continent</td>
<td>Different municipalities in a single country</td>
<td>Different municipalities in single country</td>
<td>1 municipal (two countries); 1 historical (continental)</td>
</tr>
<tr>
<td>Dataset</td>
<td></td>
<td>0</td>
<td>5 studies</td>
<td>2 studies</td>
<td>0</td>
<td>0</td>
<td>7 studies</td>
</tr>
<tr>
<td>Type of cases</td>
<td></td>
<td>n/a</td>
<td>4 national studies of municipalities; 1 global study</td>
<td>2 focus on municipalities in one continent</td>
<td>n/a</td>
<td>n/a</td>
<td>n/a</td>
</tr>
<tr>
<td>No case study / theory</td>
<td></td>
<td>0</td>
<td>1 study</td>
<td>0</td>
<td>0</td>
<td>5 studies</td>
<td>0</td>
</tr>
<tr>
<td>Focus of review</td>
<td></td>
<td>n/a</td>
<td>Metrics</td>
<td>n/a</td>
<td>n/a</td>
<td>Themes are political economy; social cohesion; teleconnections; innovation; paradigm shift.</td>
<td>n/a</td>
</tr>
</tbody>
</table>

Source: Fenton (2013, forthcoming)
Content analysis

• **Strong consensus** on the importance of urban sustainability (and related issues e.g. sustainable development, urbanisation, population increase, anthropocene)

• **Dissatisfaction** about definition and use of concept
  - too much geographic specificity?
  - failing to account for up/downstream impacts?
  - relativism – ”more sustainable than” is not sustainable?
  - solutions proposed by some authors accentuate problems identified by others – risk that definitions become normative/exclusive?

• **Need** for more holistic approach, wider scope, stronger relationship with relevant reference points

• **Challenge: how to achieve what ideally should occur, given the constraints that determine what actually happens**
Content analysis cont.

- **Trade-offs** are identified as a recurring challenge and risk making urban sustainability the art of doing only things that aren’t impractical/inconvenient – i.e. raise the standards of the worst, but not raise standards

- **Short-termism** is supported by factors such as wilful ignorance/myopia, clientalism, lack of competence or capacity

- **Norm-reinforcement** of the observed norm, unsustainable development

- **Literature downplays the importance of non-specific contextual factors** (e.g. the prevalence of socio-political pressures in any context)
Content analysis cont.

- **Fragmentation** occurs as a result of context-specific analysis
  - imbalance, e.g. ethnocentrism
  - more focus on formal mechanisms and specific categories, e.g. megacities, or actors, e.g. municipal organisations

- **Triumph of pragmatism** – Literature self-reinforcing its own problems?
  - 42/47 studies focus on case studies, metrics or data
  - over-emphasis of specific contexts or indicators reduces scope of analysis and action?

- **Narrow, striated use of concepts**
  "By narrating or measuring the history of incremental actions in atomised locations, with emphasis on the specific role of municipalities, an isolationist and elitist norm is consolidated” Fenton (2013).
  - need for more dynamic, flexible, inclusive, multi-dimensional definitions
Logic of urban sustainability studies

Sustainable development is important for Humans

Humans live in Cities

Cities are important for Sustainable development

Change is required

City reduces Problem

Problem is unsustainable

City is sustainable

... but in relation to what?

Does the literature’s emphasis on case studies and observed, specific, micro-level examples distort our perception of urban sustainability?
Conclusions

• Need for more dynamic, flexible, inclusive, multi-dimensional definitions
• Need for proactive leadership, plurality of visions, greater participation

• Research should make better assessment of issues including the various forms of organisation, processes, capacities, participation and their influence of scope, will and mandate
• Research should focus on overcoming factors such as inertia that occur because of past “urban sustainability” and impede future implementation

• If the scale of challenges is increasing faster than the scale of achievement, then unsustainable development is still the norm – does this mean the scientific study of urban sustainability is contributing to unsustainable development?
Ph.D. research questions

RQ1 - What does literature on urban sustainability reveal about the study and practice of urban sustainability?

Expanding on core themes in the literature review...

RQ2 - How are strategic planning processes for urban sustainability organised?

RQ3 - What is the role of stakeholders in strategic planning processes for urban sustainability?

RQ4 - How do municipalities conceptualise and operationalise the concept of urban sustainability in their behaviour, policy and planning?

RQ5 - In what ways may existing methodologies, tools, concepts and approaches enhance or undermine the study and practice of urban sustainability?