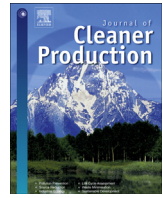




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| Title | Catalyzing sustainable urban transformations towards smarter, healthier cities through urban ecological infrastructure, regenerative development, eco towns and regional prosperity |
| Author(s) | Zhang, X; Hes, D; Wu, Y; Hafkamp, W; Lu, W; Bayulken, B; Schnitzer, H; Li, F |
| Citation | Journal of Cleaner Production, 2016, v. 122, p. 2-4 |
| Issued Date | 2016 |
| URL | http://hdl.handle.net/10722/231255 |
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Call for papers

Catalyzing sustainable urban transformations towards smarter, healthier cities through urban ecological infrastructure, regenerative development, eco towns and regional prosperity

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ARTICLE INFO

Article history:

Received 6 February 2016

Accepted 6 February 2016

Available online 22 March 2016

1. Introduction

For the past three decades, the notion of sustainable cities has become central in planning and managing urban areas in the World. This notion has invited varied focus points, contexts and challenges associated with urban arenas. The relationships among citizen's technological, ecological, economic, social and political systems need to be re-conceptualized and re-structured as cities are facing complex pressures, originating "from above" as well as expectations "from below" on the attributes and opportunities of "urban life" (McCormick et al., 2013; Leyden et al., 2011). Challenges for cities may also lie in the fact that they are complex adaptive & dynamic systems with important embedded dependencies-social, cultural, physical and technical – 'built-in' over the years of their development. Citizens are therefore interconnected in complex ways through the global economy (and society) and they can be catalysts for change at wider scales (Theaker and Cole, 2001;

Campbell, 1996; Caprotti, 2014). It is, therefore, important to address and catalyze sustainable urban transformation in the context of scale and the linkages across levels, systems and regions.

At the strategic mission and practical implementation level, it is necessary to be clear about the aims & focus for sustainable urban transformation action in this decade which usually attributed to the following:

- Towards future smarter cities: what, why and how?
- Towards healthier cities: diagnoses and remedies of urban illnesses, develop and enforce ecological engineering and design and manage urban impervious surfaces.
- Towards regenerative urbanization process by shifting from cleaner production to positive production within cities: contradictions, transitions and creativities
- Towards eco-city development: planning strategies, governance, 'open system & holistic design', eco-city learning mechanisms in achieving equitable, sustainable, post fossil-carbon societies.

In order for cities to strive to make real progress toward greater sustainability, healthier and smarter, what types of changes must be accomplished? What possibilities are there and what can we learn from other towns and cities across different scales? How do we increasingly effectively envision the future city and how do we then transform those visions into goals, objectives, strategies and timetables for transforming the visions into reality? What pathways can be taken? What can (or must) stakeholders (in particular, politicians) do to facilitate and to empower the citizens to make the transformations?

Answering these questions and developing these aims and ideas into implementable solutions will require us to bring urban

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sustainability to fruition in decision-making. In current practice, urban development practice, terms such as eco-cities, low carbon cities, smart/intelligent cities and regenerative neighborhood/community/cities have been proposed as integrated socio-technical answers to environmental concerns in the urban scale (Zhang et al., 2013; Zhang, 2015; Shen et al., 2011; Cole, 2012; Reed, 2007; Roseland, 1997; UN- Habitat, 2010). What do these entail, how are these being implemented and what impact will they bring along?

This 'Call for Papers' (CfPs) for a **Special Volume of Journal of Cleaner Production (SV)** is focused upon various dimensions of sustainable urban transformations applied to the cities across different scales, which range from buildings, neighborhoods, cities and regions—the necessary transformation of cities involving a process of unlocking or disembodimenting its energy & resources underpinnings, rapidly reducing resource and energy consumption and switching to renewable sources. This SV is focused on how these approaches and developments are evolving, how they can help us to prevent or adapt to climate changes and how these approaches are likely to evolve in the next two to three decades? With climate patterns changing and with the changes in energy systems, all the essential infrastructures of provision for cities (e.g. energy, water, food, transport, shelter, waste, products and services and information) will have to be changed. Then how can the entire city system and all actors be engaged, empowered and supported to make the changes with thousands of bottom-up initiatives and synergistic benefits?

This CfPs for a Special Volume of the Journal of Cleaner Production is designed to address the objectives of:

- (1) Documenting & catalyzing the theoretical development of the term smart cities, healthy cities, eco-cities, and regenerative cities, their emerging principles and practices;
- (2) Explaining how these terms can be measured, monitored & implemented;
- (3) Providing encouraging practical pathways and best practice/examples of their implementation in multiple social, cultural and climatic contexts; and
- (4) Catalyzing & mapping obstacles and enablers that must be understood and addressed to that more rapid progress can be made in implementing the transformation towards a smarter, healthier, sustainable and regenerative urban society.

We invite authors to develop papers based upon comprehensive/integrative reviews, theoretical development, models as well as papers that provide detailed case studies, which document best practices, illustrate effective indicators and document their effectiveness in monitoring and assessing progress in multi-dimensional ways in the essential sustainable urban transformations. Papers are solicited that document the evolution and supportiveness of governmental policies. We also invite, in-depth editorial critiques, and relevant book reviews, which include **but are not restricted** to the following themes:

Theme 1: Theoretical Definitions, future visions or imaginaries, characteristics of catalyzing sustainable urban transformation (including smart city, healthy city, eco-city, regenerative city and related Concepts).

- Theoretical and conceptual frameworks, future visions or imaginaries, foundations and origins of the 'urban transformation' paradigm (included related concepts of 'smart city', 'healthy city', 'eco-city', and 'regenerative city');
- Definitions and roles of baselines and benchmarks in assessing 'smart city', 'healthy city', 'eco-city', and 'regenerative city' development;

- Documenting, catalyzing and publicizing the literature on 'definitions', 'characteristics', 'aims', 'criteria', 'scopes,' 'policies' and emphases of 'smart city', 'healthy city', 'eco-city', and 'regenerative city';
- Trans-disciplinary approaches that engage social scientists and professionals (e.g. geographers, ecologists, economists, planner, design professionals (e.g. architects, landscape architects, & engineers) and public policy & public health experts, who are and will increasingly help to catalyze the emerging knowledge of sustainable urban transformation.

Theme 2: Performance Assessment of sustainable urban transformation towards smarter, healthier, more ecological and regenerative city.

- Identification and application of indicators/dimensions/principles/metrics for measuring qualitative and quantitative performance of sustainable urban transformation towards smarter, healthier, more ecological and regenerative city;
- Assessment approaches based upon multiple driving (e.g., financial) models, which have foundations in practical and academically-sound performance metrics in evaluating sustainable urban transformation;
- Economic, social, cultural, ecological and biophysical dimensions, thresholds and targets for catalyzing sustainable urban transformation at various scale;
- Identifications of achieved and achievable quantitative and qualitative results of smarter, healthier, more ecological and regenerative city at the sectors of individual buildings, planned neighborhood, urban & regional sustainable development scales
- Contextual considerations and guiding principles for the use of baselines and benchmarks for assessing the performance of smarter, healthier, more ecological and regenerative city, especially with respect to issues of multiple spatial, temporal and functional scales;

Theme 3: Pathways towards Urban Models that Support Sustainable Urban Transformation.

- Pathways, partnership frameworks, mathematic models, governance and policy regimes, support tools and approaches that support the emergence of smarter, healthier, more ecological and regenerative city practices;
- Engagement practices, models, actions, initiatives and movements with stakeholders in exploring ecological, economic and social possibilities for smarter, healthier, more ecological and regenerative city;
- Identification of roles for different stakeholders in stimulating sustainable urban transformation at multiple scales, including but not limited to real estate developers, investors, architects, urban planners, governors, citizens and civil society organizations, NGOs;
- Case studies, which document and catalyze development and adoption of smarter, healthier, more ecological and regenerative city practices at the neighborhood, urban or regional scale;
- Experiences and lessons in urban "green-blue" ecological engineering to develop and enforce standards for restoration of natural and social ecosystem services towards more healthier & ecological city

Theme 4: Obstacles, benefits and enablers for the implementation of Sustainable Urban Transformation.

- Institutional, financial or implementation barriers to achieving Sustainable Urban Transformation outcomes

Table 1
Tentative time planning: SV-development process deadlines.

| SV-development phases | Deadlines |
|---|------------------------|
| Submission of extended abstracts | March 20, 2016 |
| Feedback of extended abstracts | April 8, 2016 |
| Manuscript submission deadline | July 8, 2016 |
| Peer review, paper revision and final decision notification | January 7, 2016 |
| SV online publication | April 6, 2017 |

- Financial/economic/management/governance solutions to work in harmony with various urban systems towards smarter, healthier, more ecological and regenerative city by the public, private sectors and with NGOs;
- Barriers, benefits, enablers and opportunities to implementation of new technologies (e.g. urban and neighborhood metabolism approaches, information and communication technologies, etc.), new financing schemes that may drive smarter, healthier, more ecological and regenerative city across different scales.
- Identification, correlation and causation of ‘co-benefits’ as a result of the new approaches associated with smarter, healthier, more ecological and regenerative city, including but not limited to, human health, eco-system, social and economic benefits;
- Benefits and challenges in exploring the nexus of environmental science, technology, and society to achieve smarter, healthier, more ecological and regenerative city goals;
- Enablers related to integrated neighborhood ecological infrastructure and sustainable urban design; design and modify urban impervious surfaces through ecological engineering; designation, planning, implementation and governance of urban ecological and livable corridors
- From civil infrastructure to ecological infrastructure (e.g., eco-mobility development): Diagnoses and remedies of urban illnesses;

2. Coverage/Audience

This Special Volume of Journal of Cleaner Production is intended to provide academics, policy-makers, developers, architects, planners, environmental NGOs and other practitioners a fundamental, holistic, multi-disciplinary understanding of sustainable urban transformation. Particular focus of research themes will be placed on the five areas described above.

3. Tentative schedule

Authors intending to participate to this CfPs are informed that the editorial team and Elsevier staff will do their best to adhere to the time-schedule, but that is also dependent upon authors and reviewers co-working with us on this cooperative journey. In that context, the editorial team hopes that this SV will be published in the first half of 2017.

Please be aware that all the information and deadlines related to the tentative time schedule were summarized in Table 1.

Finally, after acceptance, papers will be available online as accepted-manuscripts with the related doi-numbers and so will be ready for being cited. Then, corresponding authors will be emailed and linked to the online proofing system allowing them to incorporate minor corrections in their articles before the latter are published. A couple of days after those minor edits have been submitted, the papers will appear on line as corrected proofs, namely published-like articles that, however, do not contain all of the bibliographic details (volume, issue and page range). The latter will be provided to the authors once the SV have been assembled and published.

References

- Campbell, S., 1996. Green cities, growing cities, just cities?: urban planning and the contradictions of sustainable development. *J. Am. Plan. Assoc.* 62 (3), 296–312.
- Caprotti, F., 2014. Eco-urbanism and the eco-city, or, denying the right to the city? *Antipode* 46 (5), 1285–1303.
- Cole, Raymond J., 2012. Transitioning from green to regenerative design. *Build. Res. Inf.* 40 (1), 39–53.
- Leyden, K.M., Goldberg, A., Michelbach, P., 2011. Understanding the pursuit of happiness in ten major cities. *Urban Aff. Rev.* 47 (6), 861–888.
- McCormick, K., Anderberg, S., Coenen, L., Neij, L., 2013. Advancing sustainable urban transformation. *J. Clean. Prod.* 50, 1–11.
- Reed, W., 2007. Shifting from ‘sustainability’ to regeneration. *Build. Res. Inf.* 35 (6), 674–680.
- Roseland, M., 1997. Dimensions of the eco-city. *Cities* 14 (4), 197–202.
- Shen, L.Y., Ochoa, J.J., Shah, M.N., Zhang, X., 2011. The application of urban sustainability indicators—A comparison between various practices. *Habitat Int.* 35 (1), 17–29.
- Theaker, I.G., Cole, R.C., 2001. The role of local governments in fostering “green” buildings: a case study. *Build. Res. Inf.* 29 (5), 394–408.
- UN- Habitat, 2010. *State of the World’s Cities 2010/2011: Bridging the Urban Divide*. Earthscan, London.
- Zhang, X., 2015. Sustainable urbanization: a bi-dimensional matrix model. *J. Clean. Prod.* <http://dx.doi.org/10.1016/j.jclepro.2015.08.036>.
- Zhang, X., et al., 2013. Delivering a low-carbon community in China: technology vs. strategy? *Habitat Int.* 37 (C), 130–137.