

Livable Urban Futures Scoping Workshop

Concept Note



Urbanization and Global
Environmental Change
AN IHDP CORE PROJECT



Stockholm Resilience Centre
Sustainability Science for Biosphere Stewardship



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Livable Urban Futures Scoping Workshop

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Background and Rationale

Fueled by human-induced forces unleashed by development and management of the environment in the industrial age, urbanization and global environmental change (GEC) are converging in a dangerous synchronicity, which threatens to have unprecedented negative impacts on human development, quality of life, economic and social stability and Earth System dynamics. Alongside the threats posed by the convergence of the effects of urbanization and global change, however, is an equally compelling set of opportunities urban areas and urbanites can be better positioned to harness before irreversibility and lock-in come into effect.

The complexity of urban systems and the global sustainability challenges that we face require inter- and transdisciplinary research that combines context-sensitive regional and global approaches to inform and challenge solutions. Although traditions of addressing urban complexities have long existed in the social sciences, humanities, engineering, and natural sciences, we have barely scratched the surface in our efforts to understand crosscutting issues, such as: the many processes and interconnections through which resource use and environmental burdens driven by urbanization induce environmental change across time, space and scale; the implications for risk and socioeconomic vulnerability, of alterations in ecosystems and in water, carbon and other biogeochemical cycles, as they alter the frequency and intensity of environmental disturbances and stresses; and the limits, options and barriers all these processes pose to effective, city-relevant interventions seeking to move to more sustainable and resilient urbanization pathways. A lack of interdisciplinary and co-produced research on the interactions and feedbacks between urbanization, urban areas and GEC profoundly limits the potential to intentionally shift development pathways through planned governmental and nongovernmental actions.

Sponsored by the Science and Technology Alliance for Global Sustainability, the global research platform [Future Earth](#) represents a new opportunity to rethink how GEC research can be organized to encourage interdisciplinarity, and how it can better connect science with policy in order to offer solutions to today's grand sustainability challenges. With this changing global research landscape, a number of urban research and practice communities are currently interested in new opportunities for enriched collaboration and for expanding and enhancing the 'urban' research agenda under the Future Earth framework. There is considerable fertile ground for innovative research to promote linkages across established or rapidly emerging areas of urban and environmental research and the Future Earth research themes. Initial discussions about creating an urban platform took place during the 2012 Planet under Pressure conference (London, UK) and included members of the Urbanization and Global Environmental Change (UGEC) Project, former International Human Dimensions Programme (IHDP) on Global Environmental Change, International Geosphere Biosphere Programme (IGBP) and DIVERSITAS.

In February 2014, the UGEC Project hosted an initial Scoping Meeting in London, UK that brought together representatives of different disciplinary backgrounds and inter- and non-governmental organizations to begin a conversation on the gaps and future needs for urban research as well as the necessary components for the design of a new urban interdisciplinary initiative. Since this time, Future Earth has published its [2014 Strategic Research Agenda](#), with cities as a priority, and established a distributed Secretariat as well as Science and Engagement Committees. How can we use the Future Earth focal challenge on urban (*see: 2014 Strategic Research Agenda, P.6*) as a foundation for developing research questions and anchoring research in different regions across the globe? This second workshop, funded by a Future Earth Cluster Activity grant to establish an Urban Transition Team, will build on this momentum with more concrete goal(s) as the focus – to establish the design and framework of an urban platform which could operate within Future Earth and its respective research and governance frameworks as well as the consideration of potential urban flagship projects.

Goals and Outcomes

To continue the process of bridging the gap between engineering, natural and social sciences, humanities and communities of practice on fundamental interactions between urbanization, urban areas and GEC, the 2-day workshop will examine the state of the science and gaps in knowledge on the following *Livable Urban Futures* overarching research foci and questions:

- I. *Dynamic Urban Planet:* How does urbanization drive planetary environmental changes? How does urbanization vary at different scales (space, place, time, culture)? What are the risks and tipping points in key environmental components such as biodiversity, climate, carbon, air quality and hydrology?
- II. *Global Urban Development:* How does global environmental change affect (threaten) urban populations, livelihoods, economic activities, ecosystems, infrastructures and other things of urban value? For example, how vulnerable or adaptable are urban actors and economic activities to current temperatures and to a future 3-4°C warmer world?
- III. *Urban Options for and Limits to a Transformation towards Sustainability:* What are the limits, barriers and opportunities to transition to a different – more sustainable and resilient – world? For example, when and how do urbanization processes, urban energy systems and GHG emissions “lock-in” such that future emission trajectories are difficult to alter; and what are the opportunities for altering urbanization trajectories towards lower carbon pathways? What lifestyles, ethics and approaches to sustainable, economically successful and livable cities in the world are compatible with a transition to global sustainability?

We envision these as starting points to get a dialogue underway and promote both inter- and trans-disciplinary science focused on critical research areas, but intend to remain open to other foci and questions of interest to various communities of practice.

Meeting participants will:

- Design and outline in greater detail the key components and structure of an urban platform/organizational mechanism with the Future Earth framework to ensure that urban issues are fully embedded within its architecture and procedures;
- Identify two to three urban research activities, i.e., flagship activities of varying lifespans and foci based on the overall intent and needs of the individual projects; and,
- Learn more about the duties and responsibilities of the proposed Urban Transition Team (UTT) and make nominations for membership.

Outputs

- White paper / blueprint identifying the needs and requirements for the design of an urban platform within Future Earth
- 2-3 proposals for urban flagship activities
- Journal article(s) introducing the research gaps and ways forward as identified by the group

Participants

Approximately 15-20 researchers and practitioners from multiple world regions will be invited who represent key urbanization and GEC disciplinary domains within the social, natural, engineering and humanities sciences from international and regional organizations and initiatives.

Format and Background Papers

Participants are asked to **draft a one to two page (max) background paper** presenting an overview of the current state of research as well as indicating research gaps in their area of expertise as it relates to our overarching research foci and questions. The **deadline to submit the papers is Sunday, February 22nd** and will serve as a basis for the working group discussions during the workshop. All papers will be [made available online](#) to all participants prior to the workshop to allow for pre-meeting discussion, collaboration and question forming. The organizers will use this material to define the working groups for the meeting. Through this pre-meeting preparation and participation, the workshop can begin where regular conferences usually end: with discussions, debate and collaborative thinking.

During the two-day workshop, there will be a series of breakout sessions where participants are divided in three or more groups as well as plenaries where each group will report on its discussion during the breakout sessions. At the end of the workshop, group reports will be re-addressed and discussed so that a certain level of consensus can be attained on the content and way forward.

Questions to be addressed in the background papers (Please address all components of the three questions):

1. What do you see as the greatest gaps in research that could underpin the development of an urban platform? And, what research communities need to be involved?

2. What useable information can the research community provide to and/or co-develop with urban stakeholders (practitioners, planners, policymakers) to enable effective policies?
3. What sort of flagship activity could be developed to close research gaps? Describe an activity that would embody at least two of the following elements: (co-design¹; regional/North-South collaboration; interdisciplinarity) and specify the following:
 - a. What are the data, monitoring, modeling and methods needs?
 - b. Who would be involved (be as specific as possible)?
 - c. Which overarching urban theme would it address? (Dynamic Urban Planet; Global Urban Development; Urban Options for and Limits to a Transformation towards Sustainability)?
 - d. What would be the time frame (could be short-term or longer-term)? Please specify.
 - e. What are the linkages to science-policy processes (e.g., UN conventions, SDGs, etc.)?

Meeting Organizers

UGEC:

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¹ **Co-design** refers to a way of doing research in which relevant stakeholders or user groups, academic (including all relevant disciplines) and non-academic (e.g. decision-makers, practitioners, civil society and industry representatives), are involved, from the setting of priorities and framing of research questions, to the implementation of the research and the dissemination of results (ISSC Glossary of Terms). Retrieved from: <http://www.worldsocialscience.org/activities/transformations/glossary-terms/>