

UGEC SSC Synthesis Meeting February 17, 2016 | Tempe, Arizona USA

In Attendance:

Christopher Boone
Xiangzheng Deng
Michail Fragkias
Corrie Griffith
Shu-Li Huang
Darryn McEvoy
Patricia Romero-Lankao
Karen Seto
David Simon
William Solecki (via Skype)
Mark Watkins

Synthesis Process Overview

This session began with an overview of the current synthesis efforts in progress. Corrie detailed the work currently being done by Peter, Roberto, Mark and herself that stemmed from the meeting they had in Ensenada last October. This includes the creation of a timeline of important urban milestones, beginning with the Man in the Biosphere Programme in 1971, the establishment of UN-Habitat and Habitat I in 1976, and so on (see Prezi slides for details: http://prezi.com/2fzb-i1ng2c/?utm_campaign=share&utm_medium=copy&rc=ex0share).

She then went into details regarding the Cluster Synthesis, currently composed of eight ‘clusters’ of terms that related to UGEC research with each cluster unified by a single concept. These eight are: Urban Ecology (CG), Urban Energy and Material Flows (PM), Globalization and Cities (PM), Resilient Cities (RSR), Inclusive Cities (RSR), Urban Science (CG), Sustainable Cities (MW), and Urban Transitions (MW). Each cluster has a number of sub concepts, many of which can be found in multiple clusters (e.g., Green Economy, shrinking cities, eco-cities). Each cluster will consist of a write-up that details: the common elements of the cluster, how the literature has developed into different areas, how it has either directly or indirectly address GEC, whether the literature is expanding, contracting or has stagnated, and a discussion of ways forward. CG, PM, RSR, and MW are each responsible for two write-ups (see above for allocation).

Discussion: The overall reaction to the Cluster Synthesis was positive. David thought the idea was good and coherent, stating that this should be a good overall synthesis product, and likely better than products from other core groups. There were comments from multiple people that we should map these clusters back onto the Science Plan and its four themes, an option which will be explored once the cluster sections have been written. A few expressed that the cluster synthesis sounded too large for one article, that it might be better as a summary work with a few other articles that branch off and discuss the clusters in greater detail. Shu-Li pointed out that governance, institutions, and financing are important concepts missing from the clusters. Other ideas that the group contributed for the small groups consideration included:

- The rationale behind this cluster synthesis. How do you explain/justify the selection of these eight clusters?
 - Answer: The connections will be found later once the cluster write-ups are completed. Given how long the existing write-ups are, clusters/topics might have to be merged. This could also include remapping the clusters to mirror the structure of the Science Plan.
- In what regions have the ideas in the clusters been more focused on?
- Urban meteorology and climate should be included. If asked, those researchers would likely put themselves in the 'urban science' cluster.
- Shu-Li suggested that, along with mapping out the eight clusters, the authors should also include what role UGEC played in their development.

The venue of the paper(s) was also brought up. Paty and Chris said that the urban section of *Frontiers* could be a good option. Xiangzheng suggested that, rather than just one article, a special issue might be a better option, and that the International Geographers Union conference in Beijing would be good venue for a special UGEC session on this work. Other options include: Urban Transitions Global Summit in Shanghai in September and/or Habitat III in Quito in October.

Those present at the meeting expressed interest in contributing to the cluster synthesis, through working on first drafts, commenting on drafts, or other ways.

Other possible, complementary synthesis works suggested at the meeting included:

- A survey that asked the network regarding UGEC's influence on their research (this has already been done, but with very little response from the network).
- Looking back at the Science Plan to see which aspects of the research emerged and grew in ways that were expected and unexpected.
- Going back through and compiling/synthesizing UGEC Viewpoints issues and blog articles.
- Collating existing synthesis efforts into a document/website.

Plenary Discussion on the Contribution of UGEC

Participants were asked to break out into small groups to discuss their points of view on the following questions. These responses below are the points that were raised in this session and are intended to feed into a journal publication addressing UGEC's role both scientifically and operationally.

1. What do you consider to be UGEC's most significant outputs? Which of these outputs are best known internationally?

There were many significant outputs and the breadth and diversity is what is significant (multiple formats: books, special issues, papers also Viewpoints series/newsletters)

Activities like the regional workshops and the international conferences were important catalysts for collaborative writing and network building. Synthesis workshops produced significant outputs for international research.

- **Science Plan.** It has longevity. Put the 'urban' as a global category for research and analysis. The SP provided a foundation/touchstone that we could always go back to - Opportunity to co-produce the next phase of the Science Plan with practitioner community.
- **Electronic outputs,** e.g., Viewpoints and newsletters are read worldwide and do convey a sense of our presence. Valuable as lobbying tools too and also in recruiting younger researchers as both readers and authors (VP allowed for engagement with PhDs and postdocs).
- **Journal SIs** from workshops and conferences. Some are quite recent and will hopefully also have future impact and circulation.
- **UGEC Handbook**
- **Journal articles** = there are many, but some stick out as significant: Teleconnections paper in PNAS (brought up many times as significant) also the global urban land meta-analysis piece

2. What has been the biggest evolution or change in terms of UGEC-related science/practice over the last decade?

The prominence of urbanization (research and policy/practice).

- UGEC has been important in breaking urban planning from a narrow perspective or view of urbanization. There have been some impacts on the policy level for urban planning.
- Forcing a systems and integrated framework approach. E.g. flooding control linking DRR with adaptation communities towards integrated perspectives
- Increasing impact on practice and working more with practitioners, not just research.
- Increasing integration of urban-ecological perspectives. E.g., ecosystem services, used by planners and economists (not just ecologists) – need to continue to move forward our understanding of how services can have multiple benefits
- Increased emphasis on sustainability. Rethinking of what urban sustainability means, e.g., the role of tele-connected systems in defining sustainability
- Formulating science questions and an increase in publications related to UGEC
- Climate adaptation and mitigation are increasing linked and is creating linkages across municipal agencies
- How work is being taken up by IPCC Assessment Reports and furtherance of the urban chapters

Identifiable community. The series of conferences and workshops have resulted in the creation of new networks as a result. Especially those linked to international events have raised our profile in many parts of the world.

- Impact in China has increased, due to XZD and KS. Chinese researchers have become a community over recent years. This community has gained accreditation as developers became involved.

New research trends: health component in urban research; ecosystem services; air pollution; impacts/vulnerability/resilience linkages; moving beyond just low carbon cities or climate change

3. What have been both the strengths and weakness of the UGEC project (scientific and operational)?

Scientific Strengths:

- Integration and cross-disciplinary approaches
- Diversity of disciplines
- Global focus, not just local - Linking urbanization with global environmental change
- Brought social science perspectives to urbanization and social science on a global scale
- Outreach to engineers and physical scientists
- Brought together social scientists with urban expertise from around the world – rather than just engineers – it is a lot more challenging to bring together a variety of social scientists needs than engineering needs (e.g. models/technologies that can be adapted easily in multiple places in the world)
- Range and diversity of outputs - Thematic and systematic with regional foci.

Operational Strengths:

- IPO succeeded in bringing in a global group and built-up networks
- Program stability - Visibility of the project, although not everywhere
- Role of IPO at GIOS – placing it at ASU was smart
- Effective and responsive IPO holding the SSC and parts of our diverse community/-ies together
- Networking with more people and disciplines through events and electronic communications
- Variable success in building regionally focused networks, the best being a real resource and agent of profile raising and change

Scientific Weakness:

- Operationalizing the findings and influencing policy and politics (influence in legal/compliance frameworks) in meaningful ways – True co-production similar to what FE ideally wants to do.
- Need to better engage young scholars.
- Not enough data or evidence to judge the impact of UGEC on practice
- Need more down-scaled data to ask key questions – e.g., energy data are released only at national levels – for some questions we need data at neighborhood or even parcel level
- Funding type and source can limit the questions we can ask and time horizon. For example, city governments in Taiwan require immediately useful information that can be applied. Research for longer term horizons may be difficult to get. FE should help facilitate long term urbanization research beyond the standard time horizons
- Have not gained sufficient involvement of decision makers, which also has affected access to funding for research – especially in early and middle stages
- Never managed to translate the Science Plan into a journal article. This lack of wide dissemination of Science Plan via journal articles limited our initial visibility and ability to recruit widely
- Not doing ongoing (yearly) synthesis work

Operational Weaknesses:

- Distributed model and operation of UGEC can be a strength and weakness.

- Loss of momentum in IHDP and then its closure, along with reduced core funding, and then the prolonged transition into a still-uncertain Future Earth, although this has forced us to become more independent and perhaps resilient within the funding time horizon.
- Put a lot of IPO staff energy and time into FE, at the expense of more central UGEC activities like synthesis
- UGEC Framework is so broad and the SSC is diverse in their research interests. Therefore, developing a cohesive strategy was difficult and this also affected outputs – e.g., the workshop/activity leader may not have always been so output driven.
- Branding - Many publications have not credited UGEC for sponsorship or support, thus not maximizing our visibility and reputation). Credit not always given to UGEC as funder or framework.
- Networking with other people and disciplines (better integration). Variable regional networks (in connection strength) – needed broader, more encompassing regional representation.
- Not sufficient involvement of practitioners.
- Engaging younger scholars in meaningful ways and following up to assess our impact

Plenary Discussion: Moving Forward

The afternoon discussion included topics such as the future of UGEC as well as that future projects relationship with Future Earth. Comments included:

On 'UGEC 2.0'

- Karen: Whatever happens with the Urban and Future Earth, it should not be UGEC 2.0. Whatever comes next should be broader than UGEC, and should make a fairly clean break with the past. The current members of the SSC should rotate off and allow more young scholars to get involved.
- Corrie: The project should be continued in terms of science. Roberto and Peter also would like to see a continuation of UGEC in some form.
- Chris: The research of Urbanization has grown beyond UGEC. There are multiple pathways to look at these issues.
- Shuaib: There still gaps in the Science Plan that need to be filled, and the next project could work towards filling and engaging with those gaps. These include: The Urban Sustainable Development Goal, the COP21 Agreement, work being done by the Disaster Risk Reduction communities, work done on urbanization in Africa. There is still plenty to do, and many new networks to connect with, such as Mark Pelling's URBAN ARK. 'UGEC 2.0' could be a continuation of the framework and science plan in a new label/brand.
- Xiangzheng: We should definitely consider multiple formats for UGEC, including more regional connections. Funding should be the key for new regional connections.
- Michail: We should decide for ourselves how long the project will be and not stick with ten years as the artificial timeframe. It's also important to have a break at regular intervals to assess and update the structure of the project.
- Multiple: UGEC does not necessarily have to continue under the banner of Future Earth.
- Darryn: UGEC needs to have a roadmap. There are plenty of opportunities for linkages with organizations that do more practical work.

- Paty: There must be more engagement with engineers and physical scientists and also stakeholders. At the same time, the social scientist perspective must be brought into the global environmental research community.
- David: The future of urban research could be at multiple hubs (e.g., North America/Latin America, Asia, and Europe/Africa).

On Future Earth

- Multiple: Future Earth is a great idea, but bureaucracy has gotten in the way.
- Michail: The ambiguity of Future Earth makes connecting UGEC with that organization through a science plan that aligns with Future Earth very difficult.
- Shu-Li: Future Earth has already had a major impact in Asia. Japan is very involved/invested in Future Earth through the hosting of one of the secretariats in Tokyo and the regional hub in Kyoto. Taiwan is also involved as well, though the progress is slow. Taiwan has moved forward with starting new projects aligned with Future Earth through the Ministry of Science and Technology. Taiwan will be focusing on disasters as their theme.
- Shuaib: Future Earth in Africa is very much run by those people who are usually involved in these kinds of activities. The main difficulty is funding: it is not direct for Africa and must be funneled through South Africa, though there is currently talk of the creation of new funding mechanism to alleviate this problem.
- Darryn: Experience with Future Earth via the Global Carbon Project Resilience workshop in Tokyo were not good.
- Karen: Other funders are available besides Future Earth.