



Urbanization and Global Environmental Change

AN IHDP CORE PROJECT

JULY 2011
ISSUE 16

UPCOMING EVENTS

Ecocity World Summit

Montréal, Quebec, Canada

August 22-26, 2011

Young LOICZ Forum (YLF 2011)

Yantai, China

September 08-15, 2011

LOICZ Open Science Conference: Coastal Systems,

Global Change and Sustainability

Yantai, China

September 12-15, 2011

Mountain Research Institute Synthesis Workshop:

Urban Growth in High Mountains

Nainital, Uttarakhand, India

November 01, 2011

COP 17-CMP 7 United Nations Conference on Climate Change

Durban, South Africa

November 28 - December 09, 2011

AAG Annual Meeting

New York, NY USA

February 24-28, 2012

Planet under Pressure: New Knowledge Towards Solutions

London, UK

March 26-29, 2012

Rio+20 United Nations Conference on Sustainable Development

Rio de Janeiro, Brazil

June 04-06, 2012

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RECENT EVENTS

IHDP Taiwan Conference “Industrial Transformation, Urbanization, and Human Security in the Asia Pacific” | January 14-15, 2011

The IHDP National Committee - The Academy of Sciences located in Taipei hosted the conference of “Industrial Transformation, Urbanization, and Human Security in the Asia-Pacific” in January 2011 at Academia Sinica, Taipei, Taiwan. This conference provided an opportunity to bring together scholars, decision makers, and practitioners to discuss the challenges that global environmental change brings to Asia-Pacific, with particular respect to the human dimensions of these challenges. Topics addressed at the conference included: 1.) Industrializing, urbanizing and regional development; 2.) Ecosystem services and vulnerability of coastal cities; 3.) Human vulnerability and security in a high risk world.

The event was organized into a one and a half day conference and hosted Nobel Laureate, Dr. Yuan-Tseh Lee, President-Elect of ICSU (International Council for Science), to deliver the keynote speech. There were also three plenary speeches from the co-sponsors of the conference, the IHDP core projects - Industrial Transformation (IT), Urbanization and Global Environmental Change (UGEC), and Global Environmental Change and Human Security (GECHS). Shu-Li Huang (UGEC SSC member) was one of the main organizers of the event and there was also

participation by Karen Seto (UGEC SSC co-chair), Darryn McEvoy (UGEC SSC member) and Peter Marcotullio (UGEC Project Associate) in various plenary and parallel sessions, as well as roundtable discussions and workshops.

The conference created a forum for the exchange of knowledge, experiences, and strategies to help the Asia-Pacific address the challenge of global environmental change in the 21st century.

Link: <http://web.ntpu.edu.tw/~shuli/2011HDP-TaiwanConference.htm>

Forecasting Urban Land-Use Change Workshop | April 1-3, 2011

The UGEC project organized a workshop which focused on forecasting urban land-use change and Earth system responses. The purpose of the workshop was fourfold: (1) to present and compare methodological advances in forecasting urban land-use change with satellite data; (2) to characterize impacts of urban land-use change on the Earth system (e.g., loss of agricultural land, habitat fragmentation, carbon sequestration and emissions); (3) to assess the utility of current models and forecasts of urban land-use change for land managers, urban planners, policymakers, conservation agencies and other stakeholders who have an interest in identifying the likely location, size and shape of future urban growth; (4) to facilitate a discussion among users and developers of models in identifying gaps in knowledge, methodologies, and typology of case studies.

This workshop was organized in tandem with the Urban Remote Sensing: State of the Art workshop, the aim of which was to better understand the range and dimensions of global urbanization. These two parallel, synergistic workshops provided a unique opportunity to address a number of crosscutting issues. The combined goals of the workshops included: 1.) Reframe discourse and motivate research agendas and communities 2.) Revisit existing and develop new hypotheses and conceptual framework(s) for urban land research.

Approximately 20 participants in each workshop were invited to meet for 2-3 days. The themes of the workshop were examined from different disciplinary perspectives (e.g., geography, urban planning, remote sensing, economics, conservation, and landscape

ecology) and methodological approaches (e.g., remote sensing, statistical and econometric modeling, system dynamics modeling, agent-based models). Workshop participants included urban growth modelers, urban planners, users of urban growth models, and other stakeholders.

Workshop discussions were organized around three broad policy-relevant themes: data, spatial and temporal scales, and applications. During the workshops, participants discussed research gaps raised and questions such as: What do we know about future urban land-use change and how does it relate to other land uses and land covers? What is the policy relevance of urban growth models; do they provide solutions to problems associated with rapid urbanization in the face of global environmental change? Are there steps to be taken that make urban growth forecasting more policy relevant?

Since the conclusion of the workshop, the group has been working to produce a report that documents the workshop discussion. A number of workshop participants are also taking the lead on submitting publications to academic journals and the sixth issue of UGEC *Viewpoints* will provide a synthesis of ideas discussed at both workshops and will present current research within these fields (expected publication date is October 2011).

Link: <http://urbangrowth.ugecproject.org/>

Sustainable Land Systems in an Era of Urbanization Workshop | June 27-30, 2011

The land community has historically focused on rural and frontier landscapes, with relatively little attention on urbanization or the rural-urban connections across time and space. This workshop aims to develop re-conceptualizations and analytical frameworks for the study of land that incorporates urban and urban-rural dynamics explicitly. Many of the current analytical frameworks take a negative view of urbanization and its impact on land. However, urbanization can also present opportunities for increased efficiency of land and resource use, and yet there is no conceptual framework that fully addresses the linkages and bi-directionalities between urban and non-urban uses of land.

This workshop included ten participants including

scholars with a good knowledge base of urban systems, their economic and political contexts and the linkages between urbanization and land use. From the land side, participants included those scholars who study resource flows or land use change in frontier environments. Key questions that the workshop addressed included: 1.) What are the pathways by which changes in non-urban land systems affect urban systems? 2.) How does urbanization affect land uses in the peri-urban space? 3.) How can we conceptualize and quantify urban-rural teleconnections? 4.) How can we conceptualize sustainable land use in a rapidly urbanizing world?

This workshop will offer two tangible outcomes: 1.) a publication on the topic in the form of a GLP-UGEC Report. GLP has started a Report series with a first report in 2010 on the "Land Grab in Africa" 2.) A peer reviewed journal paper.

CALLS FOR ABSTRACTS

Training Workshop: Urban Response to Climate Change in Asia – Understanding Mitigation and Adaptation Strategies | National Taipei University, Taiwan | November 10–15, 2011

This training workshop is funded by the National Science Council of Taiwan, and organized collaboratively by the UGEC project, SARCS (Southeast Asia Regional Committee for START), and the National Taipei University. It is open to young scholars from SARCS member countries. Scholars from other countries with relevant backgrounds and fields of study are welcome to apply as well.

The workshop will focus on urban responses, including mitigation and adaptation strategies to climate change in Asian cities. The goal of the workshop is to collect the studies from different countries and integrate them into synthesis or research papers in hopes of providing valuable references for drafting IPCC AR5.

Workshop applications must be submitted no later than **July 29, 2011**. Any incomplete or delayed application submission will not be considered. Admission of selected applicants will be announced

by the end of August, 2011. The application package will only be accepted in an electronic file attached to an e-mail, including:

- (A) A letter of intent
- (B) Curriculum vitae (academic background, research interest and recent publications)
- (C) The application form and a summary of current research (please visit the official website to download the application form)
- (D) Other materials of your previous work (e.g., published or unpublished manuscripts.)

All materials (in PDF format) should be sent to Ms. Hui-Chen Lin at the following e-mail address:

hclin.ntpu@gmail.com

Link:

http://www.sarcs.org/new/capacity/2011_%20Urban%20Response/Urban.htm

Asia Pacific Network's 2011 Annual Calls for Proposals

The APN is inviting proposals under two separate programmes, the Annual Regional Call for Research Proposals (ARCP) Programme and the Scientific Capacity Building/Enhancement for Sustainable Development in Developing Countries (CAPaBLE) Programme, for funding from April 2012, and is able to provide a limited amount of financial support for research and capacity development activities that fall within its areas of interest.

For further information on these Calls and to view the guidelines for application, you may visit the following page on the APN's website. Stage 1 Summary Proposals are due **Friday July 29, 2011, midnight (24:00) – Japanese Standard Time**.

Link: <http://www.apn-gcr.org/newAPN/opportunities/callsForProposals/2011/annualCall/annualCall.htm>

AGU Fall Meeting | San Francisco, CA | December 5-9, 2011

Colleagues are invited to submit an abstract to a special session focusing on the dynamics of urbanization: GC14 "Regional Climate Impacts 5. Urbanization Dynamics across a Changing Planet" (Co-conveners: Geoff Henebry,

South Dakota State University; Dale Quattrochi, NASA; Chris Small, Columbia University; Libby Wentz, Arizona State University).

Welcomed contributions include those on comparative urban morphology and scaling, the spatio-temporal evolution of cities, remote sensing of urban/suburban/exurban dynamics, urban-rural fluxes, urban biodiversity and invasive species, the seasonality of the urban thermal environment, and all aspects of urbanization, process and pattern within and between cities, and vulnerability, adaptation, and mitigation in urban environments in the face of global environmental change.

The session is sponsored by the Global Environmental Change (GC), and co-sponsored by the Atmospheric Sciences (A), Biogeosciences (B), Hydrology (H), Natural Hazards (NH). Confirmed invited presenters include Prof. Keith Clarke, *UC Santa Barbara* and Dr. Chris Elvidge, *NOAA*.

The deadline for abstract submissions is **August 4, 2011, 23:59 EDT/03:59 +1 GMT**.

AGU allows only one contributed presentation at the meeting (whether requesting poster or talk). The guidelines and policies about abstract submissions can be found here:

<http://sites.agu.org/fallmeeting/scientific-program/submit-policies/> When you submit your abstract (<http://agu-fm11.abstractcentral.com/>), be sure to select the GC section and the special session entitled GC14 "Regional Climate Impacts 5. Urbanization Dynamics across a Changing Planet".

If you have questions, or if you are not an AGU member and need to have your abstract submission sponsored by a member, please do not hesitate to contact any of the following co-conveners:

Geoff Henebry (geoffrey.henebry@sdstate.edu)
Dale Quattrochi (dale.quattrochi@nasa.gov)
Chris Small (csmall@columbia.edu)
Libby Wentz (wentz@asu.edu)

Planet under Pressure 2012 - New Knowledge towards Solutions | London, UK | March 26-29, 2012

Abstract submission is now open for this major international science conference focusing on solutions to the global sustainability challenge. This is an open call for participants and for abstracts for presentations and posters to be submitted against the session topics described on the conference website under the following outline:

Day 1: State of the planet: the latest knowledge about the pressures on the planet

Day 2: Options and opportunities: exchanging knowledge about ways of reducing the pressures on the planet, promoting transformative changes for a sustainable future and adapting to changes in the global system

Day 3: Challenges to progress: clarifying what is preventing or slowing humanity from implementing potential solutions

Day 4: Ways ahead: a vision for 2050 and beyond, and exploring new partnerships and pathways towards global sustainability

Each day will include relevant aspects of the conference themes:

- Meeting global needs: food, energy, water and other ecosystem services
- Transforming our way of living: development pathways under global environmental change
- Governing across scales: innovative stewardship of the Earth system

The closing date for abstract submission is **August 19, 2011**. Additional sessions will be advertised over the next few weeks.

Link: www.planetunderpressure2012.net

ANNOUNCEMENTS & OTHER NEWS

The Role of Urban and Peri-Urban Agriculture in Enhancing Food Security and Climate Change Resilience in East and West African Cities

Shuaib Lwasa (UGEC project SSC member) is spearheading a collaborative research project as a result of an awarded START grant for Global Environmental Change Research in Africa. This research is a meta-analysis of food security in urban and peri-urban areas in African cities and will assess how the provision of food within peri-urban and urban areas affects, and is affected by, climate change (Michail

Fragkias, UGEC project Executive Officer and David Simon, UGEC project SSC member are both co-PIs). The project's goal is an assessment and evaluation of UPA's contribution to food security and enhancement of eco-system services for climate change resilience in African cities. Objectives include:

1. To analyze from completed studies the contribution of UPA to livelihoods and food security
2. Assess eco-system services derived from and/or enhanced by UPA in urban and peri-urban areas
3. Synthesize the contribution of UPA towards climate change mitigation and adaptation in African cities
4. Identify possible pathways for UPA's role in urban ecological resilience to climate change in different environmental settings of African cities

This research will evaluate based on published literature the role that UPA plays in enhancing food security and building climate resilience. The evaluation will synthesize the progress in UPA as a mediating activity that will not only enhance eco-system services, but also contribute towards food security in urban and peri-urban areas of East African and West African cities. Through extensive review of literature on African cities complemented by field visits to selected cities in East and West Africa, the multi-disciplinary, international team will analyze the literature to generate knowledge that will better our understanding of the UPA role in earth systems processes identifying limits and entry points for policy. The research will also involve graduate students at four participating institutions, thereby contributing to capacity building of the next generation of global environmental researchers.

UGEC Viewpoints, Issue VI

This upcoming issue will offer a variety of articles showcasing the current research within the UGEC network and will also feature articles from participants of the recent Urban Remote Sensing and Forecasting Urban Land Use Change workshops which took place this last April. We've encouraged contributors to not only discuss their current research but to also include a discussion of problems or knowledge gaps and potential solutions for moving forward, also emphasizing connections to policy. You will find that the issue will represent thematic and regional diversity and is expected to become available in digital format online at the UGEC website in October.

IHDP 2010 Annual Report Published

To view the 2010 report which includes the IHDP core and joint projects click this link:

<http://www.ihdp.unu.edu/file/get/8808>

IHDP Writing Contest

The IHDP Secretariat (UNU-IHDP) is pleased to announce its first scientific writing contest for a new magazine to be launched in late fall 2011. The contest is open to young scholars from all over the world (graduate students, PhD students or postdocs). Scholars from developing countries are particularly encouraged to take part. The Secretariat will select five winners to be awarded a cash prize - and will publish their work in its magazine's first issue.

Articles should address a significant scientific topic relating to the human dimensions of the 'Green Economy'. While the subject matter may be technical, contestants should seek to write an article that is understandable to a non-scientific audience.

Entries are not to exceed 3,000 words and must be submitted via e-mail to secretariat@ihdp.unu.edu by August 31, 2011. Please make sure to include "Writing Contest" in the subject line.

Cash prizes will be as follows:

- 1st Place - \$ 500
- 2nd Place - \$ 200
- 3rd - 5th Place - \$ 100 each

Employees of the IHDP Secretariat (UNU-IHDP) and their dependants are excluded from entry. No recourse to legal action is permitted.

UGEC Sessions at the Planet under Pressure Conference

The UGEC project in collaboration with other IHDP projects recently submitted sessions during the call for the 2012 Planet under Pressure Conference. We've learned so far that a number of them have been accepted to which you may submit abstracts online at the conference website. The sessions and days to which they are assigned are:

Day 1: State of the world's cities: An overview of interactions between cities and global environmental change

Day 2: Urbanization as an opportunity for a sustainable future

Day 2: Transforming our way of living: Risk and opportunity in urban coasts

Day 3: Urban governance challenges for sustainability and global environmental change

More information on sessions and how to submit your abstracts can be found here:

<http://www.planetunderpressure2012.net/sessions.asp>

New Online UGEC Bibliographic Database

The International Project Office now hosts the Online UGEC Bibliographic Database for emerging UGEC-themed literature. The newest version of the database can be found on the online reference manager Mendeley (**Link:** <http://www.mendeley.com/groups/902561/urbanization-and-global-environmental-change/>).

The database incorporates recent (post 2000) publications in the field of urban GEC as well as peripheral themes. It currently includes over 1000 publications collected from around 100 journals from the fields of urban geography, sociology, economics, planning, ecology; ecological economics, climatology, atmospheric science, conservation, sustainability, and development.

JOBS

[Senior Lecturer, Reader, or Chair, Climate Adaptation, Sustainability Research Institute, University of Leeds, UK](#)

[Lecturer in Sustainability, Sustainability Research Institute, University of Leeds, UK](#)

ABOUT US

The Urbanization and Global Environmental Change (UGEC) project is a science project that targets the generation of new knowledge on the bi-directional interactions and feedback loops between urban areas and global environmental change at local, regional and global levels. It follows a multi-disciplinary approach and utilizes an innovative framework for the comprehensive understanding of the driving and resulting economic, political, cultural, social and physical processes.

An important feature of this core project is the explicit commitment to translate abstract knowledge about GEC into local decision-making contexts. The project is expected to provide a platform for close interaction between practitioners, political decision-makers and researchers and targets a stronger coordination and collaboration between academics, political decision-makers and practitioners working on urban and environmental issues.

The UGEC project is currently engaged in ongoing efforts to expand its regional and thematic networks. Our website provides links to the UGEC Science Plan, information on how researchers can join our network as project associates, and how research projects and agencies can get their projects endorsed by UGEC.

Get Involved

We are continually looking for projects to endorse and interested members of the community to become UGEC project associates in order to enhance and expand our network of scholars and practitioners. Please click [here](#) to learn more about these opportunities and to fill out an [application](#).

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