



# Urbanization and Global Environmental Change

AN IHDP CORE PROJECT

The UGEC e-Newsletter  
Issue 7, January - March 2008

## WELCOME NOTE

Dear recipients of the UGEC e-Newsletter, In this first UGEC e-Newsletter for 2008 we report on the outcomes of the recent UGEC workshop held in Dakar, Senegal on "Climate Change Resilience in an Urbanizing Western Africa". The event took place in February in Dakar, Senegal on the beautiful island of Goree, with the support of UN-HABITAT, ENDA Tiers Monde, IHDP, and the Global Institute of Sustainability. You can read a short summary of this workshop in the subsequent pages.

Furthermore, UGEC project associate, Urbano Fra, directed an advanced training course on spatial planning as a strategy for mitigation and adaptation to natural hazards. The course took place in Santiago de Compostela, Spain, in early March; we include a short summary in this issue of our e-Newsletter.

We are also thrilled to welcome three new UGEC project associates: Andrea Lampis, assistant professor at CIDER of the Universidad de los Andes in Bogotá, Colombia; Harriet Bulkeley is a lecturer in the Department of Geography at Durham University, U.K. and the Associate Director in the Centre for the Study of Cities and Regions; Sue Grimmond is a professor and Chair of Physical Geography, Environmental Monitoring and Modelling Group, Geography, King's College London, University of London, London, UK, and adjunct professor of Geography (Atmospheric Science Program) at Indiana University in the U.S.

We hope you enjoy reading our news.

Best regards,  
Michail Fragkias & Danielle Tomerlin

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## ABOUT THIS NEWSLETTER

The Urbanization and Global Environmental Change project (an International Human Dimensions Programme on Global Environmental Change – IHDP - Core project) initiated its e-Newsletter this year as an electronic avenue for important announcements regarding international meetings, workshops, conferences, colloquia, lectures, seminars, calls for papers and grant proposals, and job opportunities. If you wish to contribute content of that scope to the next issue of e-Newsletter please submit the information you wish to see distributed to the UGEC network of scholars and practitioners to [fragkias@asu.edu](mailto:fragkias@asu.edu). At this stage we plan to send out a digest every couple of months (with the possibility of establishing it as a monthly circulation as the project expands). Directions on how you may subscribe or unsubscribe are included at the end of this message. An archive of messages sent to the list is available at <http://lists.asu.edu/archives/ugec-l.html>. Our website (<http://www.ugec.org>) will always carry the most up to date so do not forget to visit it from time to time.

## UGEC EVENTS

**UGEC Workshop “Climate Change Resilience in an Urbanizing Western Africa”**  
**February 22<sup>nd</sup> 2008, Dakar, Senegal**

### Short workshop report

Contributors: David Simon, Michail Fragkias, Wim Schaerlaekens

As suggested in the recent IPCC Assessment Report, Africa is one of the most vulnerable continents to climate change and climate variability with respect to its socio-economic state. The continent is subject to the interaction of ‘multiple stresses’, occurring at various levels, leading to a reduced adaptive capacity. This vulnerability is exacerbated by existing developmental challenges such as poverty, complex governance issues, weak institutions, limited

access to capital and markets, infrastructure and technology, ecosystem degradation, disasters, and conflicts. Africa’s weak adaptive capacity increases the continent’s vulnerability to projections of climate change.



Two presentations by David Simon (Royal Holloway, University of London) and Roberto Sanchez-Rodriguez (University of California, Riverside) introduced the day’s theme with talks on approaches and issues on African cities coping with climate change and an integrated perspective on cities and climate change, focusing on mitigation, adaptation and sustainable development. The introductory presentations pinpointed the historical importance of current trends, where the increasing impacts of global environmental change (GEC) (a broader concept than climate change) are associated with ongoing urbanisation. For the first time in human history half the world’s population lives in urban areas. According to the 2007 4<sup>th</sup> Assessment Report of the Intergovernmental Panel on Climate Change (IPCC AR4), the current concentration of greenhouse gases in the atmosphere is approximately 430 parts per million (ppm), and rising at a rate of about 2 ppm annually. Both key note presentations emphasized the development implications of the complexities introduced by the impacts and responses to real and expected impacts of GEC. Prof. Sanchez highlighted data from the Dakar metropolitan region while Prof. Simon illustrated his talk with specific examples from cities like Cape Coast, Lagos, Cape Town and Mombasa.

### ***The case of Dakar, Senegal***

Key note introductions on the case of Dakar were offered by Alé Badara Sy, project manager of the City Development Strategy for the Dakar Region and Mansour Tall, UN-HABITAT Programme Manager in Senegal.



Metropolitan Dakar, the capital city of Senegal, hosts approximately 2.5 million people. The greater area constitutes only 0.3% of the surface of Senegal while it contains 25% of the country's population. Half of Senegal's urban population lives in Dakar. The city is the site for 80% of the national economic activities and is administered through 53 local communities. The urban environment is considered to be in a continuous phase of degradation. Despite problems and limitations, Dakar attracts more and more residents. The general tendencies are ones of an increase in the level of urban primacy and socio-economic bipolarisation.

Urban planning is viewed as a sector in deficit in Greater Dakar faced with extreme institutional and sectoral fragmentation under an ever-growing administrative area unable to deal with crises such as floods and coastal erosion. Local communities have to assume responsibility over environmental issues and facilitate citizen participation in decision making. Furthermore, it is important to sensitize and educate the citizens of Dakar regarding the need to change behaviour and planning norms.

### ***Practitioners' viewpoints***

The positions of mayors and mayoral advisors and technical staff (practitioners) participating in the workshop revealed a strong interest for collaboration with local and international initiatives to combat the adverse effects of climate change and increase the resilience of cities to climate change. Concerns over drought, sea level rise, coastal erosion and land use change were raised frequently. There is general interest also to consider environmental protection in their work. Agreeing on the necessity to integrate and mainstream environmental concerns of course is not enough; convincing leaders and politicians to do so is the main challenge. Another challenge is the better preparation and 'arming' of technicians, which requires considerable improvements in data availability and quality.



Clearly there is a consensus on the lack of human and monetary resources. Mayors perceive a lack of local expertise on the issue of climate change and its effects on cities. An important point raised by many practitioners was the problematic horizontal and vertical communications among administrative entities across space and at different scales. The issue of inadequate decentralization was key in the discussion. Finally, there is a mandate to move ahead: mayors agreed that even small steps can help create momentum for change. Local action plans (amended every three to five years) are important entry points for change in local governance to accommodate policies that would increase resilience to climate change. Local and international institutions have a great role to play in



strengthening local responses to climate change. The representatives from the institutions involved in the issue of climate change resilience for cities of Western Africa such as ENDA, UN-HABITAT, UNDP, IDRC and UGEC identified a clear need for additional emphasis on adaptation to climate change in cities. Practitioners also suggested the need for a better coordination and organization of capacity building initiatives.

### ***Climate change and sustainable development in West Africa.***

The workshop was successful in raising awareness on the need for building climate change resilience in cities of West Africa. It provided a forum for face to face contact between local, regional and international scientists with practitioners from the region and provided the foundation for the building of a West Africa regional network on the theme of cities and climate change. It became clear that there is a significant amount of local knowledge that exists and is not being utilized.



In the near future the workshop participants, participating programmes and other interested parties will work to advance policy making capacity through continued science-policy interfacing and building new research action projects. Researchers and practitioners need to work together and jointly form research agendas. All related groups have to identify and analyse case studies on West Africa cities pinpointing success stories and best practices from the international experience; this possibly poses difficulty since response success to CC may be

context-specific. The emergent regional network in West Africa will continue to be supported through all 'Cities and Climate Change' related efforts of the IHDP Urbanization and Global Environmental Change project, the United Nations Human Settlements Programme (UN-HABITAT), and ENDA-TM. Our target is to develop the necessary awareness for citizens and politicians/practitioners not only for short- and medium-term but also long-term action.

Furthermore, IHDP Urbanization and Global Environmental Change project, UN-HABITAT, and ENDA-TM are in the process of developing a new initiative/program for climate change and cities in the global South. Its main aim is to launch an action research plan on the interactions between cities and the global environmental changes to engage local authorities of concerned cities and to initiate prospective mechanisms of response to GEC. The initiative should provide valuable information to researchers and urban/regional planners and enhance our understanding of the implications of global environmental change for society.

### ***Advanced Training course on Spatial Planning as a Strategy for Mitigation and Adaptation to Natural Hazards – a UGEC supported event***

#### ***Short summary***

UGEC Project Associate Urbano Fra Paleo co-directed a NATO advanced training course (ATC) on Spatial Planning as a Strategy for Mitigation and Adaptation to Natural Hazards. The ATC focused on how strategies for the reduction of the impact of disasters on population, resources, commodities or functions have been primarily based on response and recover, and less attention is paid to the strategy of mitigation. Emphasis was placed on the fact that increased intervention in the phase of mitigation the less is necessary to intervene in the phase of response, and the weight of recovery and reconstruction is lowered.

The Advanced Training Course (ATC) on Spatial Planning as a Strategy for Mitigation and

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Adaptation to Natural Hazards, funded by NATO, took place in Santiago de Compostela, Spain, between the 3rd and the 8th of March.

There was a participation of nine experts from North America and Europe, and particularly two members of the UGEC group, Urbano Fra, from the University of Santiago de Compostela and director of the course, as well as Roberto Sanchez, from the University of California-Riverside.

The trainees were also experts working in research or management, in the fields of the environment or policy implementation, including some postgraduates. They came from Northern Africa, Middle East, Caucasus, Western Europe and Central Asia.

The objective of the course was to explore the various scientific and policy approaches adopted to broadening the scope of the distinct and rather discrete public policies related with the management of risks from natural hazards, including emergency management, environmental management, community development and spatial planning. This allowed examining the effective integration of the social, economic and environmental dimensions of sustainable development towards an efficient policy-making. It looked forward to an integrated risk policy, seeking a multilevel adaptive governance, responding to the gradual changes in the structure of administration, impelled by the processes of decentralization and globalization, and the increasing uncertainty brought by global environmental change. The ATC explored the opportunities served by spatial planning -both urban and regional planning- to increasing the efficiency of risk management policies, for its focus on the regulation of land uses, combining human demands for the use of natural resources and physical factors, and its great capacity to influencing the occupation of hazard-prone areas. It has reviewed the historic central role of emergency management in risk management, and the evolution experienced from the cycle of disaster to progressively comprise concepts such as environmental monitoring, early warning, vulnerability, resilience, mitigation and adaptation, inducing a conceptual shift towards a more holistic vision.

A book will be produced at the end of 2008 as the result of the principal contributions of the experts participating and some invited authors. If you are interested in receiving more details regarding this advanced training course, please visit the ATC website at:

<http://www.xente.mundo-r.com/science/atc/>

***UGEC Workshop “Forecasting the Magnitude, Location, and Form of Urban Growth”  
Fall 2008, Tempe, Arizona***

The planning stages of our next workshop are already underway. Questions to be discussed during the workshop include: What do we know about future urban landscapes across the world and how do they relate to other land uses? How will the magnitude and shape of urban areas affect and be affected by global environmental change?

The workshop will discuss the state of the art in urban growth forecasting and their utility for planners, policymakers, conservation agencies, and other stakeholders who have an interest in identifying the likely location, size, and shape of future urban growth and will facilitate a discussion among users and developers of these data to assess the gap in needs.

More information will be included in the next issue of our e-Newsletter.

***UGEC Side-event at the IHDP OM ‘08 “Urban Responses to Climate Change: Lessons Derived from Two International Workshops”***

*This event will be open to the UGEC community present at the IHDP OM 08, but please give us an indication of your interest by emailing me (Danielle.Tomerlin@asu.edu)*

The present and future well-being of societies is intrinsically associated with the growth of their urban areas and the responses of cities to climate change. Strengthening science-policy interactions is essential in successfully formulating and implementing urban responses to climate change. This side-event will highlight the lessons

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derived from two recent international workshops organized by the IHDP Urbanization and Global Environmental Change project and partner organizations - such as the UN-HABITAT, ENDA Tiers Monde and IHDP - on the topic of urban responses to climate change. The workshops brought together scholars and practitioners - the first from the Americas and the second from Western Africa - promoting the sharing and development of knowledge and ideas in an effort to create integrated perspectives on the complex reality and dynamics of coupled urban-environmental systems. Both workshops focused particularly on the role of different actors, their actions and their involvement in the responses to climate change in cities; the deficiencies and resistance of institutions to respond to climate change and what windows of opportunities to overcome them are available.

Urban sustainability in the 21st century requires multidimensional approaches, looking beyond the local scale and integrating a dynamic perspective of the interactions between local, regional and global biophysical and social processes generated by and affecting urban areas.

The side-event will showcase the lessons extracted by the two international workshops - steps that need to be taken to foster urban sustainability through responses to climate change, exploring the compatibility and coherence between mitigation and adaptation responses.

## UGEC ANNOUNCEMENTS

### *UGEC sponsored conference*



The "International Forum of GEC and Land Use Change: Dialogue and Experience of Asian Cities" conference will be co-sponsored by the UGEC project. The overarching PU-GEC Project is clearly aligned with the goals of the UGEC Project Science Plan, identifying and framing the bidirectional relationships between

global environmental change and the urban system.

The conference is a dissemination event of the PU-GEC Project, which will take place in Taipei, at the end of November of this year, at the National Taipei University. The primary focus of PU-GEC project is to frame the relationships between land use change in peri-urban areas with the global environmental change issues. One of the goals of the project is to present experiences in Asian communities.

This as a critical conference for the better understanding of how to help cities in Asia better respond to the challenges of global environmental change; the event will provide an opportunity to bring together research findings on peri-urban issues in Asian cities from a variety of perspectives both in workshop sessions and through actual field work. Very importantly, Participants will not only discuss ecosystem functions and services of Taipei's peri-urban areas as a case study, but also experience how urban sprawl impacts the study area during field work arranged within the conference program. The conference also aims to disseminate new knowledge on the comparative study on ecological development of Chinese coastal cities - a part of the SCOPE project.

To read more about this Forum, visit the conference website at:

[http://web.ntpu.edu.tw/~shuli/PUGEC\\_I0Conference.htm](http://web.ntpu.edu.tw/~shuli/PUGEC_I0Conference.htm)

### *New Project Associates*

**Andrea Lampis** is an Assistant Professor at the Universidad de los Andes in Bogota, Colombia. He has a doctorate in Social Policy at the London School of Economics



and Political Science, a MA in Sociology at the London School of Economics and Political Science and a Licenciado en Sociología at the Universidad de Roma 'La Sapienza'.

Andrea is currently studying areas of vulnerability in society, inequality, urban poverty, and urbanization. He is currently working as a Consultant on the follow-up evaluation of govern-

ance districts with the Sector Bienestar Social – National Programme for Human Development / DNP. He is also the Principal investigator in the investigation of Social vulnerability in Bogota, Veeduría District, the Director of external evaluation 'Component citizen control' Programme for Strengthening the Transparency and Accountability in Colombia from USAID-Casals y Asociados and also coordinates field-work characterization of children under age as domestic workers in Bogota and Bucaramanga under the OIT/CIDS de la Universidad Externado de Colombia ILO / CIDS.

Andrea has been active in UGEC related events and was one of the participants of our New York City workshop on Urban Responses to Climate Change, and is a contributing author to the forthcoming publications of this workshop.

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**Harriet Bulkeley** is a lecturer in the department of Geography at Durham University. She is also the Associate Director in the Centre for the study of cities and regions.

Her research concerns the nature and processes of environmental governance, focused on three related themes. First, theorizing processes of governing, including concepts of governmentality, scale, networks and learning, and the nature of public involvement in environmental policy and practice. Second, the multi-scalar politics of climate change, and in particular the role of cities and other actors outside the formal international regime in policy interventions for climate protection. And third, the contested nature of urban sustainability, including issues of transport, planning and municipal waste, and the politics of environmental justice. More broadly, she is interested in the nature and practice of interdisciplinary research.

Harriet's recent research includes:



Betsill, M. & Bulkeley, H. 2008. Looking back and thinking ahead: a decade of cities and climate change research. *Local Environment* 12(5): 447-456.

Bulkeley, H., Watson, M. & Hudson, R. 2007. Modes of governing municipal waste. *Environment and Planning A* 39(11): 2733-2753.

Bulkeley, H. & Moser, S.C. 2007. Responding to climate change: governance and social action beyond kyoto. *Global Environmental Politics* 7(2): 1-10.

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**Sue Grimmond** is a Professor and Chair of Physical Geography, Environmental Monitoring and Modelling Group, Geography, King's College London, University of London, London, UK, and

Adjunct Professor of Geography (Atmospheric Science Program), Indiana University, Bloomington, Indiana, USA. She completed her undergraduate degree (BSc Hons) at the University of Otago, New Zealand, and graduate degrees (MSc and PhD) at The University of British Columbia (under the supervision of Professor Tim Oke). Currently, she is past President of the International Association of Urban Climate (IAUC) and Lead Expert for the WMO on Urban and Building Climatology. Sue is on the editorial boards of *Journal of Applied Meteorology and Climatology* and *Agricultural and Forest Meteorology*. In 2006 she was elected Fellow of the American Meteorological Society and awarded Doctor of Science Honoris Causa, from Göteborg University, Sweden.

Sue's interests include urban water balance, carbon dioxide fluxes in urban areas, local scale advection, roughness, heat storage, evaporation, boundary layer growth, surface-atmosphere modeling, and surface characterization. She specializes in Micrometeorology and hydroclimatology of heterogeneous terrain, especially urban areas Measurement and modeling of en-



ergy and mass (water and carbon dioxide) exchanges in cities and forests.

Sue's latest publications include:

Grimmond CSB 2007: Urbanization and global environmental change: Local effects of urban warming, *The Geographical Journal*, 173, 83-88.

Mitchell VG, HA Cleugh, CSB Grimmond, J Xu 2007: Linking urban water balance and energy balance models to analyse urban design options. *Hydrological Processes*

Su HB, HP Schmid, CSB Grimmond, CS Vogel, PS Curtis 2008: An assessment of observed vertical flux divergence in long-term eddy-covariance measurements over two Midwestern forest ecosystems. *Agricultural and Forest Meteorology*, 148, 186-205, 2007.08. 009

#### ***UGEC International Working Paper Series - Call for contributions***

The UGEC International Working Paper Series aims to circulate and promote original and innovative work on Urbanization and Global Environmental Change issues. This Series targets work done by the academic and practitioner communities of the UGEC project.

Work in progress that addresses one or more themes of the Science Plan is especially welcome. Working papers on the need and practical use of scientific knowledge on global environmental change in managing, planning, and development of urban growth are also welcome.

This series provides the opportunity to scholars and practitioners to present the results of their research available in a timely fashion and receive feedback from a broader community of scientists and practitioners. The UGEC working paper series is maintained by the UGEC International Project Office. Many of the working papers will be in draft stages of articles that eventually target publication in scholarly or professional journals. More information on Policies and Procedures, the Review Process, copyright issues and submission instructions can be found on our website (under Activities – Int. Working Paper Series).

On our website you can find the existing list of papers in the Series. <http://www.ugec.org/tiki-index.php?page=WPSeries>

## **OTHER EVENTS**

### ***Upcoming International Events - 2008***

#### ***Resilience 2008 - Resilience, Adaptation and Transformation in Turbulent Times***

April 14-17, 2008, Stockholm, Sweden

For more information visit:

<http://www.resilience2008.org/>.

#### ***Ecocity World Summit (7th International Ecocity Conference)***

April 22-26, 2008, San Francisco, California

For more information go to:

<http://www.ecocityworldsummit.org/index.htm>.

#### ***International Symposium on Society and Resource Management - ISSRM – 2008***

June 10 - 14, 2008, Burlington, Vermont

For more information visit:

[www.ISSRM2008.org](http://www.ISSRM2008.org).

#### ***International Workshop on Anthropogenic Changes of Asian Monsoon***

21-24 April 2008, Nanjing, China

Website: <http://www.mairs-essp.org/>

#### ***Earth Conference "Studying, Modeling and Sense Making of Planet Earth"***

1- 6 June 2008, Mytilene, Lesbos, Greece

Website:

[http://www.aegean.gr/geography/earth-conference2008/en/main\\_fr.htm](http://www.aegean.gr/geography/earth-conference2008/en/main_fr.htm)

#### ***WCEH 2009 "Local Livelihoods and Global Challenges: Understanding Human Interaction With The Environment"***

August 4-8, 2009, Copenhagen, Denmark

The Call for Proposals and conference description is at <http://wceh2009.org/> Panel proposals are due March 31.

#### ***RGS/IBG Annual International Conference 2008: 'Geographies that Matter'***



27-29 August 2008, London  
<http://tinyurl.com/2d6q88>

### **IHDP Open Meeting**

October 16-19<sup>th</sup>, 2008, New Delhi, India  
For more information go to:  
<http://www.openmeeting2008.org/>

### **World Urban Forum – Date Change! Harmonious Urbanization: The Challenge of Balanced Territorial Development**

November 3-7<sup>th</sup>, 2008, Nanjing, China  
For more information go to:  
<http://www.unchs.org/categories.asp?catid=535>

## **NEWSWORTHY**

### ***The Greenness of U.S. Cities***



Over the past 50 years, the U.S. has experienced a more rapid growth in suburban/dispersed urban development than dense urban settlement patterns. In a recent policy brief, economists Edward L. Glaeser and Matthew Kahn showed that there exists considerable variation in carbon dioxide emissions across the nation's metropolitan areas and between central cities and suburbs within metropolitan areas. While metro areas in California and Texas lie at the extremes, metro areas of the Northeast falls in between. The policy brief examines Greater Boston in detail and suggests that while its residents may drive less than the residents of California and Texas metro areas, they use a considerable amount of fuel oil and coal-powered plant generated electricity. Also, the variation in energy related emissions within metropolitan areas is significant. Low density development is associated with far more carbon dioxide emissions than higher density construction because of the automobile oriented needs associated with commuting and greater household electricity use. The authors claim that

there are gains from promoting urban development in more environmentally friendly cities (such as the Northeast metropolitan areas)-gains relative to development in many of the Sunbelt's urban areas, where urban development should be discouraged.

Although the results are preliminary, the brief identifies the contradictions of current American land-use policies: "Local land-use restrictions cannot stop development in the nation as a whole. They simply have the ability to move development from one area to another. Our current land-use restrictions tend to stop development in those areas, like California, that are environmentally friendly and encourage it in areas, like Texas, where households produce more carbon dioxide. Within metropolitan areas, land use restrictions often push development out towards the urban fringe where energy use is highest."

The full text of the policy brief can be found at:  
[http://www.hks.harvard.edu/rappaport/downloads/policybriefs/greencities\\_final.pdf](http://www.hks.harvard.edu/rappaport/downloads/policybriefs/greencities_final.pdf)

### ***Climate Change driving Mongolians from Steppe to Cities***

Stefan Lövgren reporting for the National Geographic describes the dire effects of global warming in Mongolia: "Landlocked between Siberia and China, Mongolia is vulnerable to the impacts of global warming more than many other regions of the world. Over the past 60 years the average temperature in Mongolia has risen by 3.4 degrees Fahrenheit." Mongolia's hot summers and icy winters makes its climate one of the most extremes climates anywhere on Earth. "The warmer temperatures are drying up Mongolia's grasslands, which provide food for the country's livestock", which is 10 times the number of its people. Since Mongolians depend greatly on their livestock and the livestock depends on the environment, the combined effects of climate change have caused hundreds of thousands to abandon their nomadic herding lives for an urban living. Today, former herders crowd into cities; some have doubled their

population in the past two decades. To read more visit:

<http://news.nationalgeographic.com/news/2008/02/080221-mongolia-herders.html>

### ***Global Change and the Ecology of Cities***

In a recent special issue of *Science* focusing on cities, Nancy Grimm, Stanley Faeth, Nancy Golubiewski, Charles Redman, Jianguo Wu, Xuemei Bai, and John Briggs review the literature on global change and the ecology of cities.

From the abstract: "Urban areas are hot spots that drive environmental change at multiple scales. Material demands of production and human consumption alter land use and cover, biodiversity, and hydrosystems locally to regionally, and urban waste discharge affects local to global biogeochemical cycles and climate. For urbanites, however, global environmental changes are swamped by dramatic changes in the local environment. Urban ecology integrates natural and social sciences to study these radically altered local environments and their regional and global effects. Cities themselves present both the problems and solutions to sustainability challenges of an increasingly urbanized world."

The article reviews research on five major types of GEC interacting with urban ecosystems: land use/cover change, changes in biogeochemical cycles, climate change, hydrosystems change, and biodiversity changes. The authors conclude by suggesting that "as our ecological footprint expands, so should our perception of issues of the greater scales beyond us, and of the broader impacts of our individual and collective life-styles, choices, and actions. Thus, our hope is that cities also concentrate the industry and creativity that have resided in urban centers throughout much of human history, making them hot spots for solutions as well as problems."

The article can be found here:

<http://www.sciencemag.org/cgi/content/full/319/5864/756>

## **IHDP NEWS AND EVENTS**

### ***IHDP Strategic Plan 2007-2015 and Annual Report 2006/07***

The IHDP Strategic Plan will guide its activities for the next decade. Inserts will be periodically released, as an outline of the most current IHDP activities and initiatives. The pdf version of the Strategic Plan can be found here:

[http://www.ihdp.uni-bonn.de/Pdf\\_files/VWebStratPlan.pdf](http://www.ihdp.uni-bonn.de/Pdf_files/VWebStratPlan.pdf)

The annual report is a valuable reference source to become informed about IHDP and its recent activities. You may download the pdf of the report here: [http://www.ihdp.uni-bonn.de/Pdf\\_files/annual%20report/IHDP\\_AnnReport\\_200607.pdf](http://www.ihdp.uni-bonn.de/Pdf_files/annual%20report/IHDP_AnnReport_200607.pdf)

### ***New IHDP Project Publication***

#### ***Advances in Ecological Economics***

Fischer-Kowalski, M. and H. Haberl (eds.), 2007. Socioecological transitions and global change: Trajectories of Social Metabolism and Land Use, Cheltenham, UK, Northampton, USA: Edward Elgar, 2007.

This volume summarizes the results of one of the flagship projects of IHDP-IT by analyzing fundamental changes in society-nature interaction: the socioeconomic use of materials, energy and land, analysed within the materials and energy flow accounting framework. It explicitly addresses the interrelations between changes in society and the economy, and changes in the biophysical characteristics of production and consumption systems. (<http://www.ihdp-it.org>)

## **OTHER ANNOUNCEMENTS**

### ***SSC Member Updates***

The Scientific Steering Committee Meeting took place in Dakar, Senegal, February 2008. Several new initiatives have been implemented including

easier application processes for Project Associates, project endorsements, and sponsorships. To learn more, please view our website at <http://www.ugec.org>

### ***Call for papers – International Journal of Forecasting***

The ***International Journal of Forecasting*** invites you to submit a paper for a special issue on how to make decisions and plan (or formulate strategies) when our ability to forecast is low, or in some cases nonexistent. The critical question that this special issue aims to address is what we can do if we accept the serious limits of predictability in many situations and the huge uncertainty surrounding our future decisions and plans. It is therefore critical to consider and provide practical solutions for how we can live with such uncertainty without either being paralyzed by hesitation, or falling victims of the illusion of control by wrongly believing that we are able to forecast and pretending that uncertainty does not exist.

The deadline for first submissions is June 2008. For details: <http://forecasters.org/ijf/index.html>

### ***Job Opportunities***

#### ***Executive Director, IGBP***

The International Council for Science (ICSU) invites applications for the position of Executive Director of the International Geosphere-Biosphere Programme (IGBP). IGBP is an international, multidisciplinary research programme addressing the causes and effects of global environmental change. It forges interdisciplinary and international research infrastructure and networks of scientists who are concerned about the ways in which human activities are impacting the Earth System. IGBP is organised under the aegis of ICSU and is headquartered at the Royal Swedish Academy of Sciences in Stockholm. Review of applications will begin on 15 November 2007; interviews for the position will be held in Stockholm early 2008. For more information please visit the website:

<http://www.igbp.kva.se/page.php?pid=395>

#### ***Senior Social Scientist***

*Stockholm Resilience Centre on Research for Governance of Social- Ecological Systems*  
Stockholm Resilience Centre seeks an internationally recognized social scientist with a strong experience in research on integrated social-ecological systems.

Website: <http://www.stockholmresilience.su.se>

#### ***Four Julie Ann Wrigley Chairs of Sustainability***

GLOS is pleased to announce the establishment of four Julie Ann Wrigley chairs of sustainability. They seek intellectual leaders from all sectors with unusual vision, intellectual breadth, and practical experience to lead us in these endeavors. Each will identify and promote practical solutions to sustainability by building on Arizona State University's portfolio, catalyzing new transdisciplinary research on sustainability, and forging solution-oriented partnerships among academia, business, government and other stakeholders. They welcome applications of internationally recognized leaders in the realms of sustainable business practices, renewable energy systems, global environmental change, and complex system dynamics for these distinguished professorships: Julie Ann Wrigley Chair in Sustainable Business Practices, Renewable Energy Systems, Global Environmental Change, Complex Systems Dynamics. For more information contact: Dr. Jonathan Fink, Global Institute of Sustainability, Arizona State University, PO Box 873211, Tempe, AZ 85287-3211 or email at [linda.kuiper@asu.edu](mailto:linda.kuiper@asu.edu).

#### ***Research Scientist, Decision Center for a Desert City***

The Decision Center for a Desert City at Arizona State University seeks to hire a full-time research professional to maintain and expand WaterSim, its system dynamics model. WaterSim, a computer simulation of water consumption and availability in central Arizona, is used for research, decision support, scenario planning, and public outreach. Scenarios are produced in Powersim, an integrated environment

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for building and analyzing system dynamics simulation models. For more details go to <http://www.asu.edu/asujobs/> and search for Research Scientist with job number I4364.

***Postdoctoral Research Associate in GIS and Urban Ecology/Land-Use***

The University of Minnesota seeks a postdoctoral research associate with GIS expertise to collaborate on an NSF-funded project examining changes in ecosystem carbon storage along a chronosequence of sites representing varying ages since conversion to urban/suburban land use. This project interfaces with an ongoing NSF biocomplexity project to examine relationships between element fluxes and socioeconomic factors. The postdoc will have an opportunity to work closely with an interdisciplinary group of ecological, physical, and social scientists. This position will focus on developing spatial estimates of vegetation and soil carbon in urban/suburban landscapes to examine the relationship between ecosystem carbon storage and time since development. These results will be compared with parallel measurements made in old fields at the Cedar Creek Long Term Ecological Research (LTER) site. Responsibilities will include the integration of land-use, parcel, Census and digital orthophoto data layers with survey data that will be taken by a field crew in Summer 2008. The position requires a Ph.D. in ecology, engineering, forestry, geography, natural resources, or a related field of environmental science, and demonstrated experience in GIS. Expertise in statistics and programming/scripting for GIS are desirable. The position is available immediately and with a starting date no later than June 1, 2008. To apply, please send a description of your research interests, a curriculum vitae, and the contact information for three references to Joe McFadden ([mcfadden@umn.edu](mailto:mcfadden@umn.edu)).

***Tenure-track Position in Urban Ecology at University of Texas at Austin***

The School of Architecture ([www.soa.utexas.edu](http://www.soa.utexas.edu)) and Environmental Science Institute (ESI, [www.esi.utexas.edu](http://www.esi.utexas.edu)) at The University of Texas at Austin invite applications for a faculty

position in Urban Ecology. The appointment will be at the level of Assistant Professor, but a higher level appointment may be considered for exceptional candidates. We seek an individual with interests in interdisciplinary research and teaching. The ideal candidate will have research and teaching interests that will contribute to the planning and design of environmentally sustainable communities; and will be able to address the influence of global change on the ecology of urban environments. A major objective of this new position is to engage in new collaborative programs at UT-Austin, including ESI's Global Change Studies Center. The successful candidate will be expected to collaborate in sponsored research through the ESI and will be expected to build an interdisciplinary research program with one or more academic units affiliated with ESI. Candidates must have a Ph.D. degree at the time of appointment. Courses that support new interdisciplinary curricula in Environmental Science will also be of interest. Applicants should send a single PDF file containing their cover letter, CV, research statement, and teaching statement to the Search Committee Chair, Dr. Steven Moore, at the address below. The statement of research interests should mention how the research would address topics relating to global change. Applicants should also arrange to have three letters of recommendation sent directly to the Chair via Email at: [samoore@mail.utexas.edu](mailto:samoore@mail.utexas.edu). Dr. Steven A. Moore, Chair, Search Committee, Urban Ecology, School of Architecture The University of Texas at Austin | University Station, B7500, Austin, Texas 78712. Review of applications will start March 24, 2008 and will continue until the position is filled.

***Postdoctoral Ecologist***

The U.S. Geological Survey, Southwest Biological Science Center, is seeking a post-doctoral ecologist to work on ecological thresholds and management assessment points for National Park Service units on the Colorado Plateau. Project: Ecological Thresholds as a Basis for Defining Management Triggers for National Park Service Vital Signs – A Case Study for Dryland Ecosystems. Description: The project in-



volves working with scientists from the U.S. Geological Survey (USGS), the National Park Service (NPS), and the USDA Agricultural Research Service to develop a working framework for organizing information on ecological thresholds in the dryland ecosystems of the Colorado Plateau, to analyze empirical data sets to identify potential threshold conditions, and to develop procedures for delineating early-warning trigger points for management actions. Analyses will require expertise in univariate, multivariate, and Bayesian statistical methods. Skills for producing high-quality reports and peer-reviewed publications are essential. Experience in developing or using simulation models also is desirable. Travel to workshops and field stations throughout the Colorado Plateau region will be required. This position will be filled at the GS-11 grade level. Funding is guaranteed for 13 months, with a potential for two years of funding (total). The duty station will be located on the campus of Northern Arizona University, Flagstaff, AZ. The incumbent will be co-supervised by USGS and NPS scientists located in Colorado (Denver), Utah (Kanab), and Flagstaff. Position: Ecologist, GS-0408-11; Announcement no.: WR-2008-0301; Open period: 2/29/08 – 3/21/08; Website: <http://www.usajobs.opm.gov/>. For more information, contact: Mark Miller, U.S. Geological Survey, Southwest Biological Science Center, Tele: 435.644.4325, Email: [mark\\_miller@usgs.gov](mailto:mark_miller@usgs.gov) or Steve Garman, National Park Service, Northern Colorado Plateau Network, Tele: 970.248.1476, Email: [steven\\_garman@nps.gov](mailto:steven_garman@nps.gov).

### **Head and Professor, Department of Conservation Social Sciences**

The Department of Conservation Social Sciences (CSS) invites applications for the position of Department Head. Applications will be accepted up to March 28, 2008, or until suitable candidates have been identified. This is a tenure-track, full-time, twelve-month appointment on the Moscow campus of the University of Idaho. We are seeking candidates with excellent scholarly credentials to provide vision, leadership and expert administration for a dynamic academic department in the College of Natural

Resources. The department head is the principal administrative and academic officer of the department and provides leadership and administration for the teaching, research, extension and service functions of the department. The department head reports directly to the dean of the College of Natural Resources. The department head will lead a diverse group of faculty committed to the missions of the department, college and university, and a dynamic, nationally recognized program. For more information go to

[http://www.career.edu/index.php?post\\_id=4827](http://www.career.edu/index.php?post_id=4827)

### **Coordinator, Green Campus Initiative, Harvard University**

Harvard University is seeking a Coordinator for the Harvard Green Campus Initiative to coordinate energy management strategies, implement energy conservation measures and manage a range of campus sustainability projects for departments across the University. A particular focus will be placed on project management, in which the coordinator will prioritize, cost out and implement energy conservation projects by working directly with contractors. Additionally, this position will promote best practices in building operations and maintenance and assist with LEED for Existing Building certification. Familiarity with facility management and LEED certification process is preferred. A related undergraduate and/or graduate degree is required. For more information go to [http://jobs.harvard.edu/jobs/summ\\_req?in\\_post\\_id=37113](http://jobs.harvard.edu/jobs/summ_req?in_post_id=37113)

## **ABOUT THE PROJECT**



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 ap-

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proach 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 expanding 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 ([www.ugec.org](http://www.ugec.org)). You can assist us in achieving our goals by forwarding this e-Newsletter to any potentially interested party.

## SUBSCRIBE/UNSUBSCRIBE INFORMATION

If you have been forwarded this e-Newsletter by email and would like to subscribe directly to the list, please send an email to [LISTSERV@LISTS.ASU.EDU](mailto:LISTSERV@LISTS.ASU.EDU) with the text (command) "SUB UGEC-L" at the message body. If you believe you were added on this list by mistake or wish to not receive email from the UGEC project, you can unsubscribe by sending an email to [LISTSERV@LISTS.ASU.EDU](mailto:LISTSERV@LISTS.ASU.EDU) with the command "SIGNOFF UGEC-L" at the message body or by sending a message to the list owner, Michail Fragkias at [fragkias@asu.edu](mailto:fragkias@asu.edu)

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## *~We Have Moved!~*

The UGEC International Project office relocated to the beautifully remodeled Global Institute of Sustainability building at Arizona State University! We have a new address and PO Box. However, our phone and fax lines will remain the same.

Our new mail address is:  
Urbanization and Global Environmental Change Project  
Arizona State University  
PO Box 875402  
Tempe, AZ 85287-5402

For courier services such as UPS and FedEx, the physical address of the UGEC IPO is:  
Urbanization and Global Environmental Change Project  
Arizona State University  
800 S. Cady Mall  
Tempe, AZ 85281