



**Detailed Program**  
September 03, 2009

**International Conference**  
**‘Megacities:  
Risk, Vulnerability and Sustainable Development’**  
**September 7-9, 2009**

**Venue:**  
**Leipziger KUBUS**  
**Helmholtz Centre for Environmental Research – UFZ**  
**Permoserstraße 15 • 04318 Leipzig, Germany**  
**[www.leipziger-kubus.de](http://www.leipziger-kubus.de)**

## **Program**

**Supported by**



**Alfred Herrhausen Society**  
The International Forum of Deutsche Bank



**Conference Homepage:** <http://www.megacity-conference2009.ufz.de>

## Monday, September 7, 2009 Young Researchers' Workshop

**8:30 AM Registration**

**9:30 AM Welcome and Opening**

Room 1A

Bernd Hansjürgens (Speaker of the *Risk Habitat Megacity* Research Initiative, UFZ, Leipzig), Kerstin Krellenberg, Dirk Heinrichs, Katrin Barth (UFZ, Leipzig)

### 10:00 – 12:00 AM PARALLEL SESSIONS

Room 1A

Chair: Timon Wehnert (IZT, Berlin)  
Co-Chair: Rainer Schmitz (UCH, Chile)

- Hanna Janetschek (HU Berlin): *An integrative water resources management approach: Towards institutions of sustainability in urban and peri-urban water sector of Hyderabad*
- Gonzalo Paredes Martínez (UCH, Chile): *Modeling future energy systems focus on sustainable development, Santiago de Chile*

Room 1B

Chair: Eckart Ehlers (ZEF, Bonn)  
Co-Chair: Volker Stelzer (FZK, Karlsruhe)

- Grit Bürgow (aquatectura, Berlin): *Urban Aquaculture as Blue-Green Infrastructure*
- Christian Kimmich (HU Berlin): *Governance of energy infrastructure and the roles of regulation for a transition towards sustainability, Hyderabad*
- Gerhard Schleenstein (FZK/RWTH Aachen): *Alternatives for a sustainable management of stormwater in megacities of emerging countries, Santiago de Chile*

Room 1CD

Chair: Rainer Wehrhahn (University of Kiel)  
Co-Chair: Aldo Mascareño (UAH, Chile)

- Jan Dohnke (FU Berlin): *Correctives of Urban Development - Possibilities and Forms of Participation in Buenos Aires*
- Carolin Höhnke (UFZ, Leipzig): *The influence of (de)centralized politics on transport governance – the cases of the public transport reforms in Santiago and Bogotá*
- Vanessa Ruggiero de Souza (PUC, Chile): *Urban Planning and Risk Reduction due to natural hazards. Planning instruments in the new scenario of climatic variability and accelerated urbanization, Santiago de Chile*

Room 2AB

Chair: Francisco Martínez (UCH, Chile)

- Andreas Justen (DLR, Berlin): *Towards an activity-based modeling of transport demand in Santiago applying empirical schedules of transport behaviour*
- Héctor López Ospina (UCH, Chile): *Dynamic model of urban systems considering the phenomena emerging from the behaviour and constrains of the system, using the approach of multiple spatial-temporal scales, Santiago de Chile*
- José Andrés Muñoz (UCH, Chile): *Dynamic multi-user and multi-scale traffic equilibrium model for urban networks, Santiago de Chile*

**12:00 -13:30 PM Lunch Break**

## 13:30 – 15:30 PM PARALLEL SESSIONS

Room 1A

Chair: Volker Kreibich (TU Dortmund)

Co-Chair: Astrid Ley (TU Berlin)

- Diane Archer (University of Cambridge, UK): *Horizontal and Vertical Associations in Participatory Slum Upgrading: the Baan Mankong project in Bangkok, Thailand*
- Beate Ginzel (University of Leipzig): *Transnational networks of grassroots organizations as instruments for the local development of marginalized settlements in developing countries, Dar es Salaam*
- Alejandra Salas (PUC, Chile): *The role of systematised information in the planning processes of the Santiago Metropolitan Region- (RMS): the cases of the 2008 proposed update of PRMS*

Room 1CD

Chair: Frauke Kraas (University of Cologne)

Co-Chair: Henning Nuisl (UFZ, Leipzig)

- Rafael Sanchez (UIBK, Austria): *Risk and hazards in Santiago de Chile*
- Jacques Clerc (UCH, Chile): *Applied general equilibrium and sustainability indicators for Santiago*
- Tahnee González Martínez (FZK, Karlsruhe): *Sustainability assessment of the current municipal waste management situation in the Metropolitan Region of Santiago de Chile*

Room 2AB

Chair: Paulina Schiappacasse (TU Dresden)

Co-Chair: Claudia Rodriguez Seeger (PUC, Chile)

- Gabriela Azócar (UAH, Chile): *Coordination as a mechanism of risk observation, Santiago de Chile*
- Alejandra Rasse (PUC, Chile): *Mechanisms of inclusion, cohesion, and social exclusion in cases of spatial proximity between low-income households and middle and high income households: Is the neighbourhood binding?, Santiago de Chile*
- Juliane Welz (UFZ, Leipzig): *They live there and we live here: spatial proximity of different socio-economic groups and opportunities for social integration in Santiago de Chile*

15:30 – 16:00 PM Coffee Break

## 16:00 – 18:00 PM PARALLEL SESSIONS

Room 1A

Chair: Axel Borsdorf (University of Innsbruck, Austria)  
Co-Chair: Jonathan Barton (PUC, Chile)

- Michael Lukas (UFZ, Leipzig): *Partnership and participation under Neoliberalism planning large scale urban projects in Santiago de Chile, Santiago*
- Kirsten Hackenbroch (TU Dortmund): *The spatiality of livelihoods – everyday life and negotiations of urban public space in low income settlements of Dhaka*
- Emmanuel Edoun (WITS, South Africa): *The linkages between decentralisation and urban sustainable development, Tshwane (South Africa)*

Room 1CD

Chair: Vera Denzer (University of Leipzig)  
Co-Chair: Sigrun Kabisch (UFZ, Leipzig)

- Gustavo Durán Saavedra (PUC, Chile): *New urban poverty and water governance in Santiago de Chile (1977-2008)*
- Shahadat Hossain (TU Dortmund): *Informal urban governance – trust and dependency in negotiating water supply in informal settlements of Dhaka*
- Gabriela de Freitas Barbosa (TU Dortmund): *Built environment versus urban crime and violence. Relations between urban form and the spatial distribution of crime, Recife, Dar es Salaam & Leipzig*

Room 2AB

Chair: Wilfried Endlicher (HU Berlin)  
Co-Chair: Christian Büscher (FZK, Karlsruhe)

- Annemarie Ebert (UFZ, Leipzig): *Flood risk assessment in Santiago de Chile*
- Cristián Godoy Barbieri (UCH, Chile): *Towards management and regulation of gravel mining in urban areas of Santiago, Chile: Analysis of the sediment budget in Maipo River*
- Marco Pilz (GFZ, Potsdam): *Site effect analysis by means of seismic noise and earthquake data analysis in the large urban area of Santiago de Chile*
- Adriana Perez (UCH, Chile): *Seismic hazard in the metropolitan region: New perspective in an Andean tectonic context - case Santiago de Chile*

19:30 PM

Get-together for Young Researchers and Mentors, organized by the Young Researchers of the *Risk Habitat Megacity* Research Initiative

Venue: Café Kanal 28, Am Kanal 28, 04179 Leipzig



## Tuesday, September 8, 2009 Conference Day 1

**8:30 AM** Registration

**Plenary (Room 1A)** **Welcome and Opening**

**9:00 AM** Georg Teutsch (Scientific Director of the UFZ, Leipzig)

**Plenary (Room 1A)** David Satterthwaite (IIED, London):

**9:30 – 10:30 AM** *Adapting megacities to climate change; the possibilities and the constraints*

Moderation: Bernd Hansjürgens (UFZ, Leipzig)

**10:30 – 11:00 AM** Coffee Break

### 11:00 – 12:30 AM PARALLEL SESSIONS

Room 1A

Risk Research on Megacities

Chair: Aldo Mascareño (UAH, Chile)

- Christian Büscher (FZK Karlsruhe): *Interdisciplinary risk research on megacities: Complementary views or common paradigm?*
- Julien Rebotier (CNRS, France): *From the specificity of urban risks to the challenges of urban governance in Latin-American metropolises*
- Christoph Woiwode (TU Dortmund): *Risk governance and communication in a megacity of tomorrow: the case of Ahmedabad (India)*

Room 1CD

Climate Change and Megacities

Chair: Ricardo Jordán (CEPAL, Chile)

- Ulrike Weiland (UFZ, Leipzig): *Climate change risks and cities - an ambivalent relationship*
- Harry Storch (BTU Cottbus) & Ho, Long Phi (HCMC UT), Nigel Downes: *The downscaling of climate change impacts - adapting Ho Chi Minh City to climate change*

Room 2AB

Sustainability Assessment and Strategies for Megacities

Chair: Kerstin Krellenberg (UFZ, Leipzig)

- Bernhard Stratmann (Bauhaus Universität Weimar): *Megacities: Too large to be sustainable?*
- Barry Weisberg (University of Illinois, USA): *Urban security in the Global Age: Obstacles and opportunities for megacities*
- Sonia Schoon (University of Kassel): *Harmonious society construction, "Groping for stones crossing the river" and "Three don'ts" as guiding principles for a sustainable redevelopment of urbanized villages in the Chinese mega-cities of the Pearl River Delta?*

**12:30 – 14:00 PM** Lunch Break

### 14:00 – 15:30 PM PARALLEL SESSIONS

Room 1A

Transportation, Air Quality and Health: A Hazardous Chain of Environmental Risks

Chair: Peter Suppan (FZK, Garmisch-Partenkirchen)

- Francisco Martínez (UCH, Chile), Cristian Cortés, Andreas Justen, Barbara Lenz, Markus Mehlin: *An integrative modelling of macro- and microscopic processes in urban transport demand*
- Stefan Hausberger (University of Graz), Martin Rexeis, Michael Zallinger: *Emission modelling – approaches and examples for application*
- Ulrich Franck (UFZ, Leipzig): *Epidemiological studies in megacities: Integrating air quality and public health to minimize health risks*

Room 1B	<p>Efficient resource management in Megacities Chair: Luis Vargas (UCH, Chile)</p> <ul style="list-style-type: none"> <li>▪ Bernd Franke (ifeu, Heidelberg), Jiaerheng Ahati, Hans Hertle, Jianfeng Chen, Keke Wei: <i>Improving energy resource efficiency in the future Dryland Megacity Urumqi, Xinjiang, China</i></li> <li>▪ Michael Waibel (University of Hamburg): <i>New urban middle classes in the mega-urban region of Ho Chi Minh City / Vietnam and their role in terms of energy-efficient housing and in terms of urban sustainability</i></li> <li>▪ Manfred Schütze (ifak e.V., Magdeburg), Gloria Robleto, Jens Alex: <i>Macromodelling as a tool for water management in a megacity</i></li> </ul>
Room 1CD	<p>Measuring and Planning for Sustainability Chair: Jürgen Kopfmüller (FZK, Karlsruhe)</p> <ul style="list-style-type: none"> <li>▪ Jonathan Barton (PUC, Chile), Jürgen Kopfmüller: <i>Measuring sustainable urban development for strategic planning: the case of Santiago de Chile</i></li> <li>▪ Johannes Rehner (PUC &amp; CEPAL, Chile), Ricardo Jordán: <i>Metropolitan cities sustainability: Regional Panorama Latin America</i></li> </ul>
Room 2AB	<p>Governance Approaches for Supply Infrastructure Chair: Henning Nuißl (UFZ, Leipzig)</p> <ul style="list-style-type: none"> <li>▪ Sabine Schröder (nexus, Berlin), Tanja Schäfer, Angela Jain: <i>The role of civil society in urban transformation exemplified by participative transport planning in the Indian megacity Hyderabad</i></li> <li>▪ Gustavo Durán (PUC, Chile), Carolin Höhnke, Michael Lukas, Henning Nuißl: <i>Market-oriented urban policies and the quality of governance-insights from Santiago de Chile</i></li> <li>▪ Paul Lehmann (UFZ, Leipzig): <i>Challenges to pricing water supply and sanitation in megacities, the case of Lima Metropolitana (Peru)</i></li> </ul>
<b>15:30 – 16:00 Coffee Break</b>	
<b>Plenary (Room 1A)</b> <b>16:00 – 17:00 PM</b>	<p>Janos Bogardi (UNU-EHS, Bonn): <i>Unregulated Urbanization: the Source of Vulnerability</i> Moderation: Claudia Rodriguez Seeger (PUC, Chile)</p>
<b>17:00 – 18:30 PM PARALLEL SESSIONS</b>	
Room 1A	<p>Megacities and their interplay with their hinterlands Chair: Helmut Lehn (FZK, Karlsruhe)</p> <ul style="list-style-type: none"> <li>▪ James McPhee (UCH, Chile): <i>Impacts, conflict and integrated watershed management in the Upper Maipo River Basin</i></li> <li>▪ Thomas Sterr (Heidelberg University): <i>Embeddedness of semiarid megacity Urumqi (NW China) in its regional environment with respect to water as a scarce resource</i></li> <li>▪ Francisco Meza (UCH, Chile), Sebastian Vicuña: <i>Climate change economic impacts on supply of water for the M&amp;I sector in the metropolitan region of Chile</i></li> </ul>

Room 1CD	<p>Informality – Risks and Opportunities for Development Chair: Johannes Rehner (PUC &amp; CEPAL, Chile)</p> <ul style="list-style-type: none"> <li>▪ Khaled Abdelhalim (GTZ, Egypt), Ayman El-Hefnawi: <i>Classification of informal areas in Egypt: a technical issue or a paradigm shift? Case study Giza Governorate</i></li> <li>▪ Tibor Aßheuer (University of Cologne), Boris Braun: <i>Social and economic adaptation to climate change: brickfields and informal settlements in the face of future floods in Dhaka</i></li> <li>▪ Tahnee González Martínez (FZK, Karlsruhe), Klaus-Rainer Bräutigam, Helmut Seifert: <i>Options for inclusion of the informal waste sector in Santiago de Chile</i></li> </ul>
Room 2AB	<p>Energy System - Planning and Managing Sustainability Chair: Volker Stelzer (FZK, Karlsruhe)</p> <ul style="list-style-type: none"> <li>▪ Markus Hanisch (HU Berlin), Kai Rommel: <i>The generation of generators – an empirical study of power shortages and consumer – coping strategies in the emerging megacity of Hyderabad</i></li> <li>▪ Luis Vargas (UCH, Chile), Volker Stelzer, Jürgen Kopfmüller: <i>Sustainable energy system</i></li> <li>▪ Audrey Dobbins (University of Stuttgart), Jan Tomaschek, E. Doruk Özdemir, Ulrich Fahl, Ludger Eltrop: <i>Advanced local energy planning using energy models: A case study of residential water heating in the Gauteng City Region, South Africa</i></li> </ul>
18:30 – 19:00	<b>Coffee Break and Opening of Photo exhibition</b>
<b>Plenary (Room 1A) 19:00 - 20:00 PM</b>	<p>Research for Megacities: Experiences and Perspectives Chair: Francisco Martínez (UCH, Chile)</p> <ul style="list-style-type: none"> <li>▪ Frauke Kraas (University of Cologne) Core program ‘Megacities-Megachallenge - Informal Dynamics of Global Change’</li> <li>▪ Rainer Müssner (BMBF, Bonn) Program ‘Research for Sustainable Development of the Megacities of Tomorrow’</li> <li>▪ Bernd Hansjürgens (UFZ, Leipzig) ‘Risk Habitat Megacity’ research initiative</li> </ul>
20:00 PM	<b>Conference Dinner</b>

## Wednesday, September 9, 2009 Conference Day 2

**Plenary (Room 1A)** Adisa Azapagic (University of Manchester, United Kingdom):  
9:00 – 10:00 AM *An integrated approach to sustainable development in cities*  
Moderation: Francisco Martínez (UCH, Chile)

10:00 – 10:30 AM **Coffee Break**

## 10:30 – 12:00 AM PARALLEL SESSIONS

Room 1A  
Climate Change response Strategies  
Chair: Dirk Heinrichs (UFZ, Leipzig)

- Philipp Rode (LSE, UK): *City making as climate policy implications for governance, planning and transport*
- Rainer Bräutigam (FZK, Karlsruhe), Joachim Vogdt, Bastian Wens, Tahnee González, Helmut Seifert: *Options to reduce risks from landfill gas emissions resulting from landfills in Santiago de Chile*
- Joao Lima (State University of Sao Paulo), Carlos Nobre: *Mapping vulnerability to climate change in Brazilian megacities*

---

Room 1B	Scenarios as a Planning and Managing Tool Chair: Jonathan Barton (PUC, Chile) <ul style="list-style-type: none"><li>▪ Corinna Hölzl (UFZ, Leipzig), Henning Nuisl: <i>How stakeholders perceive the challenges of metropolitan governance - an empirical insight from Santiago de Chile</i></li><li>▪ Jürgen Kopfmüller (FZK, Karlsruhe), Jonathan Barton, Volker Stelzer: <i>Santiago 2030: towards sustainability?</i></li><li>▪ Fritz Reusswig (PIK, Potsdam), Diana Reckien, Lutz Meyer-Ohlendorf, Matthias Lüdeke, Oleksandr Kit, Martin Budde, Hans-Liudger Dienel, Kai Rommel: <i>Climate Impacts, Adaptation, and Mitigation in a Southern Megacity: future scenarios for Hyderabad (India)</i></li></ul>
Room 1CD	Modelling Urban System Dynamics Chair: Rainer Schmitz (UCH, Chile) <ul style="list-style-type: none"><li>▪ Rainer Schmitz (UCH, Chile), Mark Falvey, Jacques Clerc: <i>An integrated air quality modelling system for the evaluation of urban scenarios</i></li><li>▪ Sonja Simon (DLR, Stuttgart), Thomas Pregger, Kristina Nienhaus, Wolfram Krewitt, Luis Vargas, Gonzalo Paredes, Volker Stelzer, Jürgen Kopfmüller: <i>Towards a sustainable energy system in Chile - scenario analysis results</i></li><li>▪ Salman Qureshi (University of Salzburg), Jürgen Breuste: <i>Ecosystem services in megacity of Karachi, Pakistan: An evaluation using the urban gradient model</i></li></ul>
<b>Main Hall</b> 12:00 – 13:00 AM	Poster Session
13:00 – 14:00 PM	Lunch Break
<b>14:00 – 15:30 PM PARALLEL SESSIONS</b>	
Room 1A	Dimensions of Vulnerability Chair: Rainer Bräutigam (FZK, Karlsruhe) <ul style="list-style-type: none"><li>▪ Rainer Wehrhahn (University of Kiel), Anna Lena Bercht: <i>Stress appraisal, vulnerability and coping with the impacts of urban restructuring in China – linking geographical and psychological concepts of vulnerability</i></li><li>▪ Veronika Selbach (University of Cologne): <i>How to identify vulnerability in a megacity in respect to a safe water supply?</i></li><li>▪ Alvaro Rojas Vio (Ministry of the Interior, Chile): <i>Preventive urban design in Chile - an integral approach in vulnerable neighbourhoods</i></li></ul>
Room 1B	Risk Management Strategies Chair: Christian Büscher (FZK, Karlsruhe) <ul style="list-style-type: none"><li>▪ Karin Metz (UFZ, Leipzig), Ulrike Weiland: <i>Institutional Aspects of Flood Risk Prevention - a case study of Santiago de Chile.</i></li><li>▪ Bijan Khazai (CEDIM, Karlsruhe), Friedemann Wenzel, Fouad Bendimerad: <i>Disaster risk management master planning - a risk reduction model for megacities with applications in Istanbul, Kathmandu and Metro Manila</i></li><li>▪ Bijan Khazai (CEDIM, Karlsruhe), Friedemann Wenzel, Osman Kilic, Ahmet Basmaci, Betül Konukcu, Emin Mentese, Bilgen Sungay: <i>Megacity indicator systems for disaster risk management in Istanbul</i></li></ul>
Room 1CD	Transport and Mobility – Basic Need and Sustainability Risk Chair: Markus Mehlin (DLR, Berlin) <ul style="list-style-type: none"><li>▪ Maria Schnurr (Volkswagen AG, Wolfsburg): <i>Reducing the burdens of urban mobility by sustaining the “dimension, density, diversity” triangle: The Bangkok example</i></li><li>▪ Claudia Dangond (Universidad Javeriana, Colombia): <i>The problem of mobility in Bogotá: A juridical, economical and political perspective</i></li><li>▪ Xiaoxu Bei (DLR, Berlin), Reinhart Kühne, Martin Ruhé,: <i>Sustainable mobility and sustainable transport for the medium-sized cities in China</i></li></ul>

---

---

Room 2AB

Strategies to reduce social vulnerability

Chair: Corinna Hölzl (UFZ, Leipzig)

- Sigrun Kabisch (UFZ, Leipzig), Dirk Heinrichs, Kerstin Krellenberg, Juliane Welz: *Intra-urban migration and new patterns of socio-spatial differentiation in Santiago de Chile: opportunities for social integration?*
- Fernando Jimenez-Cavieres (ONG Cordillera, Chile): *Upgrading and regeneration programmes in Chile: Are they able to cope with socio-spatial exclusion?*
- Kerstin Krellenberg (UFZ, Leipzig), Juliane Welz, Sonia Reyes-Päcke, Dirk Heinrichs: *Urban green spaces: new potential for social integration?*
- Joao Sant'Anna Neto (Sao Paulo State University, Brazil), Camila Grosso de Souza, Natacha Aleixo: *Air quality degradation and its effects on public health in Sao Paulo metropolitan area – Brazil*

---

15:30 – 16:00 PM

Coffee Break

**16:00 – 17:30 PM PARALLEL SESSIONS**

---

Room 1A

Land use conflicts - the discrepancy between urban growth and the increase of hydro-meteorological hazards

Chair: Ellen Banzhaf (UFZ, Leipzig)

- Hugo Romero (UCH, Chile): *Urbanization and social distribution of natural hazards in Santiago de Chile Andean Piedmont*
- Hannes Taubenböck (DLR, Wessling): *Flood risks in urbanized areas - Multi-sensoral approaches using remotely sensed data for risk assessment*
- Atiqur Rahman (Jamia Millia Islamia University, India), S. P. Aggrawal, Maik Netzband: *Monitoring and modelling urban sprawl connected to flood vulnerability using remote sensing and GIS techniques of the fast growing urbane centre – Hyderabad-Secundrabad, India*
- Magaly Mendonça (UFSC, Brazil): *Climatic and urban factors in the occurrence of natural hazards in Floreanopolis, Brazilian Southern Coast*

---

Room 1CD

Urban poor and Vulnerability

Chair: Ulrike Weiland (UFZ, Leipzig)

- Varsha Ayyar (Tata Institute of Social Sciences, India), Lalit Khandare: *Squinting at Mumbai's ethnic ghettos and informal economy: Challenges to social inclusion and sustainable development*
- Markus Hanisch (HU Berlin), Christoph Dittrich: *Modernizing the food retail system in the emerging Indian megacity of Hyderabad; a regional economy perspective*
- Benjamin Etzold (University of Bonn), Patrick Sakdapolrak, Markus Keck: *Coping with urban food insecurity: Case studies from megacities in India and Bangladesh*

---

Room 2AB

Assessment and Implementation of Good Governance

Chair: Sigrun Kabisch (UFZ, Leipzig)

- Ana Faggi (CONICET & Museo Argentino de Ciencias Naturales, Argentina), Carlos Anido: *Governance and sustainability of green spaces in Buenos Aires and Montevideo*
- Aldo Mascareño (UAH, Chile): *Formal institutions and informal networks in Latin America: Decisional, regulatory and normative consequences for megacities*
- Henning Nuissl (UFZ, Leipzig): *How to assess good governance at the local level*

---

17:30

Conference Closing