



## Risk Habitat Megacity ¿sostenibilidad en riesgo?

### Partners in Chile/Latin America

- United Nations Economic Commission for Latin America and the Caribbean (ECLAC/CEPAL)
- Universidad de Chile
- Pontificia Universidad Católica de Chile
- Pontificia Universidad Católica de Valparaíso

### Partners in the Helmholtz Association

- German Aerospace Centre (DLR)
- Forschungszentrum Karlsruhe (FZK)
- Helmholtz Centre for Infection Research (HZI)
- GeoForschungsZentrum Potsdam (GFZ)
- Helmholtz Centre for Environmental Research (UFZ)



# Risk Habitat Megacity

## ¿sostenibilidad en riesgo?

### Helmholtz Association

-  **Energy**

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-  **Earth and Environment**

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-  **Health**

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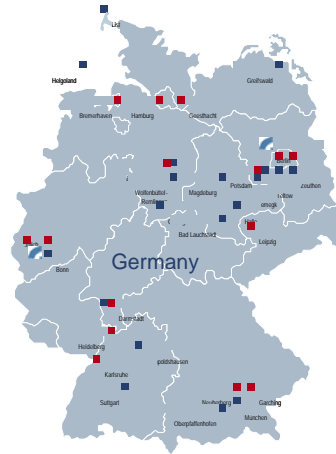
-  **Key Technologies**

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-  **Structure of Matter**

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-  **Transport and Space**



Helmholtz Centre  
Branch of Helmholtz Centre  
Helmholtz Head Office

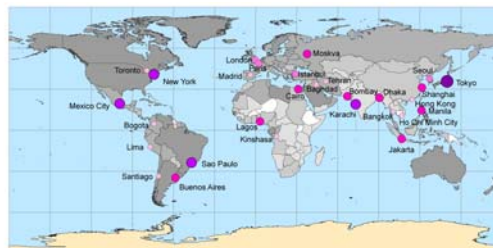


# Risk Habitat Megacity

## ¿sostenibilidad en riesgo?

### Why Research for Megacities?

- Mega-urbanisation is critical for global change
- Contribution to solutions in megacities are effective instruments for global sustainable politics
- provides opportunities for scientific-technological cooperation
- substantial need for research



**The World's Megacities 2005**  
(in million inhabitants)

5 to < 8
8 to < 10
10 to < 15
15 to < 20
≥ 20

**Urban population 2005**  
(% of total population by country)

< 20
20 to < 40
40 to < 60
60 to < 80
80 to < 100
100
Infilled
No data

HELMHOLTZ ASSOCIATION  
LEIPZIG  
RESEARCH UNIT

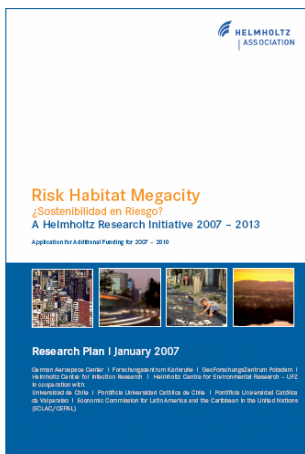
Cartography and GIS:  
Przemyslaw Kuchler  
Petra Hoffmann

Source:  
UN-ESA Population Division  
World Urbanization Prospects: The 2009 Revision Population Database  
http://www.un.org/esa/population/2009revision/popbases.shtml  
© UN-ESA 2009

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## ¿sostenibilidad en riesgo?

### Milestones of the Research Initiative



- Evaluation of 'Earth and Environment' 2003
- Senate decision 2004
- Positive evaluation of concept proposal 9/2005
- Evaluation of research plan 3/2007
- First implementation phase -2010
- Second implementation phase, Expansion -2013

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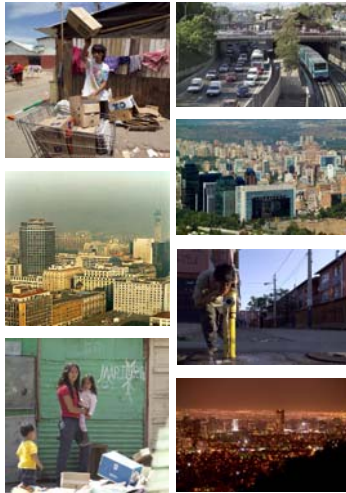
## ¿sostenibilidad en riesgo?

### Objectives of the Research Programme

- **identify** of **sustainability** objectives for megacities;
- **assess characteristic risks**, their driving factors and consequences;
- design **strategies**, procedures and instruments for risk management as key tools for sustainable urban **development**;
- **develop** implementation **solutions** that take the institutional, political, economic, and social context within megacities into account as well as
- **build a platform** for continuous learning and application in order **to integrate** academic research and practice.

## Risk Habitat Megacity

### ¿sostenibilidad en riesgo?



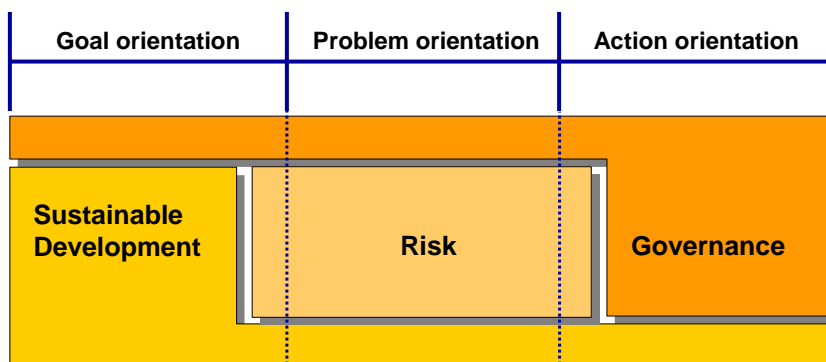
#### Fields of application

- Land use management
- Socio-spatial differentiation
- Energy system
- Transportation
- Air quality and health
- Water resources and services
- Waste management

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### ¿sostenibilidad en riesgo?

#### Research Concept

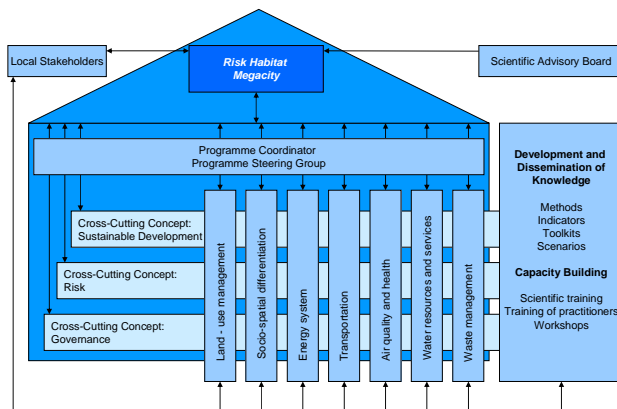


→ Guidelines: Norm, Comprehension, Implementation

→ Integration: of research and findings

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## ¿sostenibilidad en riesgo?



### Integration

- Concepts
- Methods
- Disciplines, Actors
- Findings
- organizational

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## ¿sostenibilidad en riesgo?

### Timeframe

<b>Phase 1 (2007 – 2010)</b> Pilot Study	<b>Phase 2 (2010 – 2013)</b> Expansion
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### Training of young scientists

- Individual supervision
- Annual young researchers workshop

### Transfer of knowledge

- Master programmes, professional courses at Partner Universities in Chile
- ECLAC/CEPAL training network throughout Latin America
- Postgraduate programmes in Germany