

Focus on Megacities in Latin America

The research initiative analyses mature megacities in Latin America, the most urbanized region in the world. Its large agglomerations are of crucial socio-economic importance for the entire continent. At the same time, urbanization in the region is about to reach a new dimension.

The first case study is the Metropolitan Region of Santiago de Chile, the centre of one of the most urbanized countries in Latin America. This agglomeration suffers from megacity-typical problems and offers the scope to uncover emerging trends. Here, the conceptual framework will be developed.

Santiago de Chile offers an excellent research infrastructure and research partners with international recognition. A Centre for Sustainable Urban Development will serve as the platform for the coordination of research, the dissemination of results and the communication with policy makers. From Santiago, the project will be extended to other megacities in Latin America.

Cooperating Organizations

Partners in Latin America

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

Partners in the Helmholtz Association

- » German Aerospace Centre (DLR)
- » Forschungszentrum Karlsruhe (FZK)
- » German Research Centre for Biotechnology (GBF)
- » GeoForschungszentrum Potsdam (GFZ)
- » UFZ-Centre for Environmental Research Leipzig-Halle (UFZ)

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More information:
<http://www.risk-habitat-megacity.org>



Risk Habitat Megacity

¿Sostenibilidad en Riesgo?

A Helmholtz Research Initiative
2005 – 2013

Urbanization is one of the most dramatic processes of global change. Particularly in mega-urban regions, it anticipates trends with both regional and global consequences that are not yet well understood. Mega-urbanization does not only involve unprecedented growth, high population density, and a concentration of economic and political power, but also a complex variety of simultaneous and interacting processes. They turn the urban habitat into both a *space of risk* and a *space of opportunity*.



Why Research for Megacities?

Mega-urbanization is critical for global change and sustainability because of its speed, scale and worldwide connectivity. Megacities are a major driving force of global change and at the same time bear the cumulative effects.

The global significance of mega-urbanization demands national and international commitment to understand and explain trends, and to support the development of instruments and strategies for policies towards improving urban sustainability.

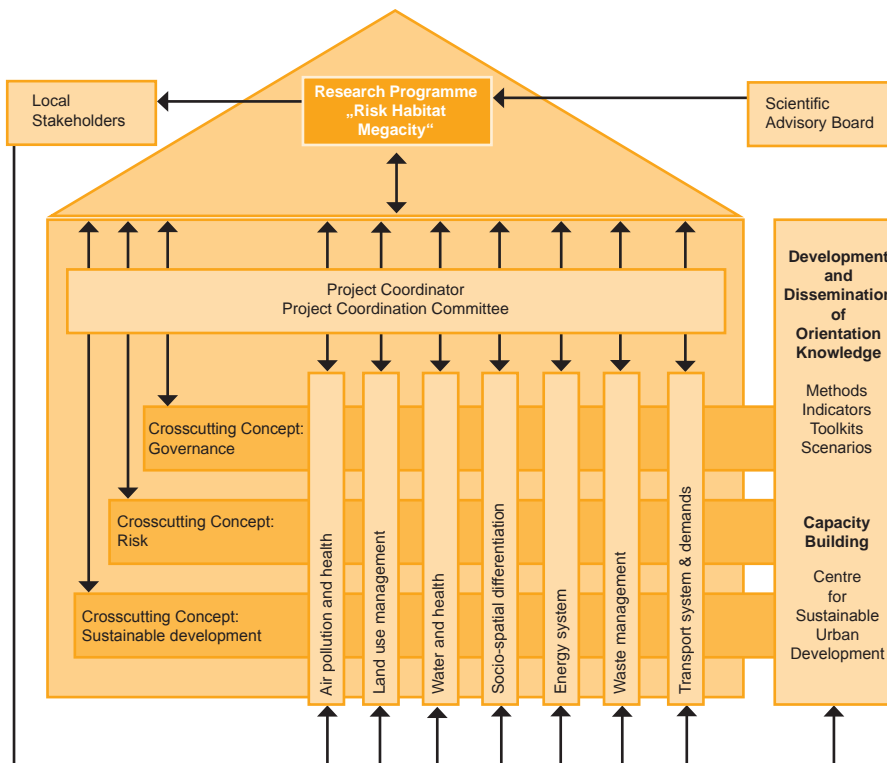
Mega-urbanization demands new technologies. Urban agglomerations are confronted with particular challenges in the area of environmental technology, public transport, traffic, telecommunications, energy supply, water supply, construction and housing. The demand for scientific-technological innovation in mega-urban regions opens the field for scientific-technological co-operation and entails opportunities to advance international efforts to enhance urban sustainability on a global scale. Research on urbanization can serve as a driver towards establishing co-operation with scientifically strong and economically capable partners.



Goals and Concept of the Helmholtz Research Initiative 'Risk Habitat Megacity'

The initiative will:

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



The analytical framework of the initiative is innovative due to its integrative and interdisciplinary character, which allows scientists and policy makers to deepen the understanding of megacities as a system. The *sustainable development* concept serves to formulate the target dimension of the project. The *risk* concept assists in identifying problems and evaluating their relevance. The *governance* concept focuses on the actors and options for managing megacities.

The project applies the three analytical concepts to various megacity-typical problem fields. Among these are land use conflicts, socio-spatial polarization, inefficient transport systems, air pollution and deficits in energy systems, water supply and waste management as well as their implications for human health.