

## Relevant Research Projects

### Project 1

<b>Information about the Project</b>
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#### **„Megacity Research Project TP. Ho Chi Minh - Integrative Urban and Environmental Planning Framework - Adaptation to Global Climate Change”**

##### **German Partners:**

- Brandenburg University of Technology Cottbus
- Free University Berlin
- Leibniz Institute of Ecological and Regional Development Dresden
- Vienna University of Technology
- University of Technology Darmstadt
- University of Technology Braunschweig
- University of Hamburg
- GRI – Transportation Consultant, Berlin
- AG Goedecke & Welsch, Berlin

##### **Cooperative Partners in Host Country:**

- Ministry of Construction (MoC) Hanoi
- Vietnamese Institute of Architecture and Planning (VIAP)
- Ministry of Natural Resources and Environment (MoNRE) Hanoi
- Institute and Sub-Institute of Meteorology, Hydrology and Environment (IMH, SIHYMETE)
- People’s Committee of HCMC
- HCMC Research and Development Institute
- HCMC Environment Protection Agency (HEPA)
- Municipality of Ho Chi Minh City
- Support to Public Administration Reform in HCMC
- HoREA - Real Estate Association HCMC
- University of Architecture HCMC
- University of Transport HCMC
- Vietnam National University
- University of Social Sciences and Humanities HCMC
- University of Technology HCMC
- Information Technology Park HCMC
- CEFURDS - Center for Urban & Development Studies
- EnerTeam - Energy Conversation Center HCMC
- TERI Vietnam
- enda - Environment Development Action

##### **Further Information:**

[www.megacity-hcmc.org](http://www.megacity-hcmc.org)

<b>Information for Applicants</b>
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**Relevant Fields of Applicant's Study and Research:**

- Methods for urban vulnerability analysis
- Impact assessment for urban areas in intra-tropical low elevated coastal zones
- Development of adaptation strategies and implementation on the regional and municipal planning levels
- Development of adaptation measures at both the neighbourhood and the building level
- Analysis and assessment of mitigation potentials by housing technologies (building construction guidelines, renewable energy techniques)
- Development of concepts for energy efficient transportation systems
- Community-based adaptation measures for urban regeneration
- Amendment of legal framework, capacity building and awareness raising

**Places for Applicant's Study and Research:**

- Brandenburg University of Technology Cottbus
- Free University Berlin
- Leibniz Institute of Ecological and Regional Development Dresden
- Vienna University of Technology
- University of Technology Darmstadt
- University of Technology Braunschweig
- University of Hamburg

**Contact for Applicants:** Prof. Dr. Michael Schmidt  
[umweltplanung@tu-cottbus.de](mailto:umweltplanung@tu-cottbus.de)

## Project 2

<b>Information about the Project</b>
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### “Climate and Energy in a Complex Transition Process towards Sustainable Hyderabad”

#### German Partners:

- Humboldt University, Berlin
- University of Freiburg
- Potsdam Institute of Climate Impact Research (PIK)
- PTV Karlsruhe
- NEXUS GmbH Berlin
- Institute for Cooperative Sciences Berlin

#### Cooperative Partners in Host Country:

- Energy Resource Institute (TERI)
- Centre of Economics and Social Studies (CESS)
- International Crops Research Institute for Semiarid Tropics (ICRISAT)
- Engineering Staff College of India (ESCI)
- National Institute of Nutrition (NIN)
- Administrative Staff College of India (ASCI)
- Jawaharlal Nehru Technological University (JNTU)
- University of Hyderabad (UoH)
- Regional Centre for Urban and Environmental Studies (RCUES-OU)

**Further Information:** [www.sustainable-hyderabad.de/](http://www.sustainable-hyderabad.de/)

<b>Information for Applicants</b>
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#### Relevant Fields for Applicant’s Study and Research:

- Institutions and Governance of Natural Resources and Environmental Pollution
- The Political Feasibility of Governance Reforms in an Emerging Megacity
- Adaptation to Climate Change: How are entitlements and obligations institutionally allocated to social groups, economic sectors and political actors?
- Climate Change Migration: Can a megacity use international support and agreements?
- Coherent Strategies towards Overall Pollution Control: How to achieve political and economic commitment for organized pollution abatement in an emerging city
- Urban Pollution and Rent-seeking: Actors, incentives and dilemmas in a megacity
- A Game-theoretic Approach to Urban Pollution: Understanding collective destruction
- Air Pollution and Greenhouse Gases from traffic: Is a rational policy impossible?
- Water Use Efficiency: institutional causes in corporate or public governance?
- Institutional and Governance Reform in Energy Regulation and Provision in a Megacity
- The role of Management Import for Improving Efficiency and Security in Energy Use
- Institutional Approaches to Reduce Energy Insecurity: Consumer cooperatives – or can companies learn to organize?
- Energy Efficiency Technologies: Rules and organization of supply side management
- A transition Cost Perspective on the Governance of the Power-sector in a Megacity

- The Political Economy of Free Rural Power Supply
- Analysis of Market Potential and Government Policy for Renewable Energy
- Bioenergy and Food Provision: potential rivalry and institutional constraints required
- Food Chains and Climate Change: Revealing the main relationships
- Climate Change, Energy and Public Health
- Waterborne Diseases: Can polluters be held responsible?
- Networks and Social Capital in the Environmental Policy Domain
- Resource-saving Behaviour: Experimental economics and field experiments
- The Role of Kirana-Shops for Local Food Security in Hyderabad
- Citizen's Governance: Participatory governance in waste and sewage management
- Small business networks: Self-managing countervailing power
- Multi-functional neighbourhood centers as integrative institutions

**Places for Applicant's Study and Research:**

- Humboldt University Berlin
- University of Freiburg

**Contact for Applicants:**

Prof. Dr. Konrad Hagedorn  
[k.hagedorn@agrar.hu-berlin.de](mailto:k.hagedorn@agrar.hu-berlin.de)

## Project 3

### Information about the Project

#### “Sustainable Development of Megacities: Energy efficient Structures for the Region of Shanghai, China”

##### German Partners:

- University Duisburg-Essen, Campus Essen  
Institute of City Planning and Urban Design  
Institute of Transportation Science
- TRC Transportation Research Consulting, Essen
- AVISO Aachener Verkehrs-Ingenieur Sozietät, Aachen
- HC Hamburg Consult, Gesellschaft für Verkehrsberatung & Verkehrsmanagement, Hamburg
- PTV, Planung Transport Verkehr, Karlsruhe
- Viessmann GmbH & Co. KG, Allendorf
- SBA Planungsbüro Stuttgart

##### Cooperative Partners in Host Country:

- Tongji University Shanghai
- City of Shanghai, City Planning Administration, Shanghai
- Urban Planning Research Institute, Shanghai
- Bayer Technologies, Shanghai
- Intergraph China, Shanghai
- SBA International, Shanghai
- Econet, Shanghai

Further Information: [www.megacity-energy.de](http://www.megacity-energy.de)

### Information for Applicants

##### Relevant Fields of Applicant's Study and Research:

- Urban and Regional Planning
- Urban Design
- Architecture: Structural Design
- Materials Science and Building Technology
- Urban Water and Waste Management
- Energy Technology / Fuel Cells
- Transportation Planning and Research
- Transportation Systems and Controlling
- Mobility and Traffic Education
- Environmental Economics and Controlling
- Building Economics and Construction Operation
- Vocational Training and Qualification

**Places for Applicant's Study and Research:**

- University Duisburg-Essen

**Contact for Applicants:**

J. Alexander Schmidt, Prof. Dr.-Ing. M. Arch  
[Alexander.Schmidt@uni-due.de](mailto:Alexander.Schmidt@uni-due.de)

## Project 4

<b>Information about the Project</b>
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**“RECAST Urumqi: Meeting the Resource Efficiency Challenge in a Climate Sensitive Dryland Megacity Environment, Urumqi as a Model for Central Asia”**

**German Partners:**

- University of Heidelberg (Department of Geography, Institute of Environmental Physics, Alfred Weber-Institute of Economics)
- IUWA – Institute for Eco-Industrial Analyses Heidelberg
- Ifeu – Institute for Energy and Environmental Research, Heidelberg
- Metropolitan Region Rhine-Neckar (MRN) Mannheim
- City of Heidelberg
- UKOM (Umweltkompetenzzentrum Rhein-Neckar/ Centre of Environmental Expertise Heidelberg Rhine-Neckar)
- ebök-Energieberatung, Haustechnik und ökologische Konzepte Heidelberg
- GGH, Gesellschaft für Haus- und Grundbesitz Heidelberg
- Culturebridge Architects Mannheim/Beijing
- Consulting and Engineering Services, Heidelberg

**Cooperative Partners in Host Country:**

- Environmental Protection Bureau (EPB) of Xinjiang Province
- EPB of Urumqi, Midong and Changji Region
- Chinese Academy of Science (CAS) Xinjiang, Institute for Ecology and Geography
- Water Bureau of Urumqi
- Xinjiang Mining Bureau, Regional Geological Survey Urumqi
- Xinjiang Academy of Environmental Protection Sciences
- University of Xinjiang
- Xinjiang Resource Recovery Association
- Planning and Construction Committee of the City of Urumqi
- Xinjiang Construction Science Research Institute, Urumqi
- Academy of Urban Planning and Design of Urumqi
- Energy Division of the Xinjiang Development and Reform Commission, Urumqi

**Further Information:** [http://www.geog.uni-heidelberg.de/forschung/physio\\_urumqi.html](http://www.geog.uni-heidelberg.de/forschung/physio_urumqi.html)

<b>Information for Applicants</b>
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**Relevant Fields of Applicant’s Study and Research:**

- Energy efficiency, Energy supply and delivery
- Urban housing and Architecture
- Water Management
- Remote sensing
- Material flow management
- Urban and regional planning
- Environmental law
- Actor-oriented modelling
- Engineering (energy, water, recycling, infrastructural development)

**Places for Applicant's Study and Research:**

- University of Heidelberg
  - \* Department of Geography,
  - \* Institute of Environmental Physics
- IUWA – Institute for Eco-Industrial Analyses Heidelberg
- Ifeu – Institute for Energy and Environmental Research, Heidelberg

**Contact for Applicants:**

Dr. Thomas Sterr

[Thomas.sterr@geog.uni-heidelberg.de](mailto:Thomas.sterr@geog.uni-heidelberg.de) (Di, Fr)

[sterr@iuwa.de](mailto:sterr@iuwa.de) (Mo, Mi, Do)

## Project 5

<b>Information about the Project</b>
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### “Young Cities – Developing Energy-Efficient Urban Fabric an the Tehran-Karaj Region”

#### German Partners:

- University of Technology Berlin
- Free University Berlin
- Berlin University of Arts
- P2m GmbH Berlin
- Inter3GmbH, Berlin

#### Cooperative Partners in Host Country:

- Building and Housing Research Centre Tehran
- Ministry of Housing and Urban Development, Teheran
- New Towns Development Cooperation, Teheran

**Further Information:**                      [www.youngcities.org](http://www.youngcities.org)

<b>Information for Applicants</b>
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#### Relevant Fields of Applicant’s Study and Research:

- Urban and Regional Planning
- Urban Design
- Architecture
- Architecture: Building Services and Design
- Architecture: Structural Design
- Energy Supply and Administrative Law
- Transport Planning
- Landscape Planning
- Environmental Assessment
- Landscape Ecology, esp. Eco-toxicology
- Building Economics and Construction Operation
- Vocational Training and Qualification
- Climatology / Meteorology

#### Places for Applicant’s Study and Research:

- University of Technology Berlin
- Free University Berlin
- Berlin University of Arts

**Contact for Applicants:**                      Prof. Dr. Rudolf Schäfer  
[Rudolf.Schaefer.@tu-berlin.de](mailto:Rudolf.Schaefer.@tu-berlin.de)

## Project 6

<b>Information about the Project</b>
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**“Sustainable Water and Wastewater Management in Urban Growth Centres. Coping with Climate Change – Concepts for Lima Metropolitana (LiWa), Peru”**

**German Partners:**

- Institut für Automation und Kommunikation (ifak) e.V. at Otto-von Guericke University of Magdeburg
- Leuphana University Lüneburg
- University of Stuttgart
- Helmholtz Centre for Environmental Research – UFZ, Leipzig
- Dr. Scholz & Partner Consulting Engineers

**Cooperative Partners in Host Country:**

- SEDAPAL - Servicio de Agua Potable y Alcantarillado de Lima
- Foro Ciudades Para la Vida
- Fomento de la Vida
- Universidad Nacional de Ingeniería, Lima

**Further Information:**

[www.lima-water.de](http://www.lima-water.de)

<b>Information for Applicants</b>
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**Relevant Fields of Applicant’s Study and Research:**

- System analysis of urban water systems
- Modelling and control of complex water and wastewater systems
- Strategies, lab and pilot scale testing of sustainable wastewater treatment
- Water conservation, recycling, water and soil pollution, remediation
- Design and operation of waste water treatment, including anaerobic technologies
- Modelling in catchment hydrology under different temporal and spatial scales
- Downscaling of climate change scenarios
- Economic evaluation of water policies and of water-related services
- Institutions and decision-making in the water sector
- Participative approaches in water management
- Water governance

**Places for Applicant’s Study and Research:**

- University of Magdeburg
- Leuphana University of Lüneburg
- University of Stuttgart
- Martin Luther University Halle-Wittenberg
- University of Leipzig
- Europe University Viadrina Frankfurt/Oder

**Contact for Applicants:**

Dr. Manfred Schütze  
[Manfred.schuetze@ifak.eu](mailto:Manfred.schuetze@ifak.eu)

## Project 7

<b>Information about the Project</b>
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### “Energy as Key Element of an Integrated Climate Protection Concept for the City Region of Gauteng (EnerKey)”

#### German Partners:

- University of Stuttgart, Institute of Energy and the Rational Use of Energy
- TUV Rheinland Group, Cologne
- Institute for Future Studies and Technological Assessment GmbH, Berlin
- Fraunhofer Institute for Building Physics, Stuttgart
- Institute for Sustainable Energy Management – INEP, Oldenburg
- The City of Stuttgart
- Africa Association of German Business, Hamburg
- German Chamber of Business Southern Africa, Johannesburg

#### Cooperative Partners in Host Country:

- University of Johannesburg
- University of Pretoria
- University of Cape Town, Energy Research Centre – ERC
- Gauteng Dept. of Local Government
- The City of Johannesburg
- Ekurhuleni Metropolitan Municipality
- The City of Tshwane
- Council of Scientific and Industrial Research – CSIR
- Sustainable Energy Africa (SEA), SESSA, Peer Africa

#### Further Information:

[www.enerkey.info](http://www.enerkey.info)  
[www.ergey.de](http://www.ergey.de)  
[www.enerkey.co.za](http://www.enerkey.co.za)

<b>Information for Applicants</b>
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#### Relevant Fields of Applicant’s Study and Research:

- Mechanical Engineering
- Energy technology
- Energy economics and socio-economics
- Energy and climate politics
- Renewable energies
- System analysis and system modelling
- Environmental analysis, life cycle analysis
- Regional and spatial planning
- Modelling and decision support tools

#### Places for Applicant’s Study and Research:

- University of Stuttgart
- University of Oldenburg

**Contact for Applicants:**

Ludger Eltrop  
[Ludger.eltrop@ier.uni-stuttgart.de](mailto:Ludger.eltrop@ier.uni-stuttgart.de)

## Project 8

<b>Information about the Project</b>
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**“Income generation & Climate Protection by Valorising Municipal Solid Wastes in a Sustainable Way in Emerging Megacities, Addis Abeba, Ethiopia”**

**German Partners:**

- AT – Verband zur Förderung angepasster, sozial- und umweltverträglicher Technologie e.V., Stuttgart
- University of Stuttgart
- Institute of Future Energy Systems
- Federal Institute for Occupational Safety and Health

**Cooperative Partners in the Host Country:**

- ENDA – Environmental Development Action in the Third World, Addis Abeba
- Addis Abeba University
- Addis Abeba Environmental Protection Agency

**Further Information:**

[www.ignis.p-42.net](http://www.ignis.p-42.net)

<b>Information for Applicants</b>
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**Relevant Fields of Applicant’s Study and Research:**

- Waste treatment technologies
- Waste quantification, characterization and prognosis
- Planning of waste management systems
- Waste management in developing countries
- Resource recovery from waste (recycling, composting, anaerobic digestion, waste-to-energy systems)
- Ecological sanitation
- Biofuels and renewable energies
- Cleaner Development Mechanism (CDM) in waste management projects
- Occupational safety and health at waste management facilities
- Socio-economic evaluation of waste management systems
- Social entrepreneurship in waste management
- Soil protection and erosion prevention

**Places for Applicant’s Study and Research:**

- University of Stuttgart
- Institute for Energy Systems (Associated research institute of the University of Applied Sciences in Saarbruecken)

**Contact for Applicants:**

Dieter Steinbach  
[ignis@at-verband.de](mailto:ignis@at-verband.de)

## Project 9

### Information about the Project

#### “Urban Agriculture (UA) as an Integrative Factor of Climate-Optimised Urban Development, Casablanca, Morocco”

##### German Partners:

- Berlin University of Technology
- University of Hohenheim
- University of Wuppertal
- Association for Rainwater Harvesting and Water Utilisation Darmstadt

##### Cooperative Partners in the Host Country (Selection)

- National Institute of Urban Planning (INAU), Rabat
- Hassan II University Ain Chock, Casablanca
- Hassan II University Mohammedia, Casablanca
- National Weather Service (DMN)
- Association Terre et Humanisme and other civil society organisations
- Moroccan National Airport Office, Casablanca (ONDA)
- Regional Authority of Agriculture (DPA), Casablanca
- City planning Authority, Casablanca (AUC)
- Regional Authority of Land-use Planning, Water and Environment, Casablanca (IRATE)

##### Further Information:

[www.uac-m.org](http://www.uac-m.org)

### Information for Applicants

##### Relevant Fields of Applicant's Study and Research:

- Open space planning and Landscape Architecture
- Megacity specific land use pattern
- Urban open space systems based on productive Landscape
- Climate change, energy efficiency and urban agriculture
- Regional climate scenarios
- Minimisation of ecological footprint of the city region by urban agriculture
- DSS based on a regional data level knowledge base
- Sustainable water management in urban areas
- Waste water treatment for agricultural reuse
- Membrane-Bioreactor (MBR) technology for wastewater treatment
- Industrial wastewater treatment for internal reuse purposes
- Socio-spatial aspects and forms of shaping urban-rural social networks and support systems
- Participative strategies, forms of governance and capacity building for rural-urban linkages
- Stakeholder in urban agriculture in Casablanca
- New framework and approaches for megacity-research (action research and transdisciplinarity)
- Impacts of urban-periurban agriculture on the labour market: creation of new jobs?
- informal economy related to the food production chain
- Multifunctional agricultural spaces (food, bio products, tourism ...)
- Urban food systems, food security and the contribution of regional agriculture

**Places for Applicant's Study and Research:**

- Berlin University of Technology
- University of Hohenheim
- University of Wuppertal

**Contact for Applicants:**

Prof. Dr. Undine Giseke  
[Undine.Giseke@tu-berlin.de](mailto:Undine.Giseke@tu-berlin.de)

## Project 10

<b>Information about the Project</b>
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### “Metrasys – Sustainable Mobility for Megacities, Hefei, China”

#### German Partners:

- German Aerospace Center (DLR)
- Fraunhofer Institute FIRST
- Wuppertal Institute for Energy, Environment and Climate
- Free University of Berlin
- Albert Speer & Partner
- LUAX Software Development

#### Cooperative Partners in the Host Country (Selection)

- Research Centre for Software Engineering Technology Anhui Province (ASEC);
- Chinese Academy for Transportation Science, Center for Sustainable Transportation;
- Tongji University, School of Transportation Engineering;
- Chinese Academy of Sciences,
- Anhui Institute of Optics and Fine mechanics;
- Hefei Municipal Traffic Police Department;
- Hefei Communication Bureau;
- Hefei Environmental Monitoring Center;
- Hefei Institute of Urban Planning and Design
- Government of Jiading District, Shanghai.

**Further Information:** [www.metrasys.de](http://www.metrasys.de)

<b>Information for Applicants</b>
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#### Relevant Fields of Applicant’s Study and Research:

- Development of concepts for energy efficient transportation systems
- Transport planning
- Transport Studies, Traffic Flow Measurement and Data Fusion
- Digital Audio Broadcast applications for traffic and transport
- Open space planning and Landscape Architecture
- Megacity specific land use pattern
- Urban open space systems based on productive Landscape

#### Places for Applicant’s Study and Research:

- Berlin Free University
- German Aerospace Center
- Wuppertal Institute
- Fraunhofer Institute FIRST

**Contact for Applicants:** Martin Ruhé  
[martin.ruhe@dlr.de](mailto:martin.ruhe@dlr.de)