



Call for applications 2021

Glowing cities: Heat and drought in urban contexts

Urban areas across the globe are experiencing new climate extremes. In line with the ecosystem changes projected and measured at global and regional scales, the likelihood, incidence and extent of local heat waves and drought periods have substantially increased already. Moreover, the coincidence with an epidemic outbreak may further exacerbate such crises as people are forced to stay indoors.

In the urban context, these deteriorating ecological conditions are entangled with both mitigation and adaptation requirements: On the one hand, urban areas are major contributors to global warming (GHG emissions). On the other, they concentrate key characteristics that shape the local climate and human wellbeing, such as urban form and building typologies, green and blue infrastructures, mobility systems, energy systems, etc.

These characteristics are deeply woven into place-specific patterns of activities (e.g. economic, social, cultural) and physical space (e.g. materials, designs, structures), spanning from the inner city to the periphery and urban region. The dynamic spatial and temporal coincidence and positive feedbacks between these characteristics and a changing climate amount to acute situations of extreme stress (e.g. heat islands), but also trajectories of extended heat and drought disasters. This results in massive negative impacts on local ecosystems and biodiversity, human health, living and working environments, economic welfare and quality of life, and implies highly uneven social and spatial distribution.

In the face of a steadily and disruptively heated urban climate, stakeholders across levels (local, regional, national, etc.), sectors (public, private, civic) and social strata (poor, wealthy, etc.) are challenged to develop transformative responses that are highly effective both in the short, medium and long run. While in most places coordinated actions have yet to emerge, some have already seen the formation of new governance approaches, policies or business models to counter the threat of urban heat and drought. However, these often also raise new questions regarding the actual sustainability orientation of their designs, outcomes and impacts, pointing to the intricate science and politics of these complex decision making and implementation processes.

Therefore, the DLGS is looking for innovative research proposals that confront this high priority challenge and explore its implications theoretically and/or empirically, aiming to support novel and potentially groundbreaking theoretical or methodological developments, intervention approaches and/or practical solutions for transformative change that can curb the drivers and pressures for urban heat and drought, and foster resilience to both.

The Dresden Leibniz Graduate School (DLGS) offers PhD scholarships for young scientists in the field of spatial sustainability science. The deadline for applications to the call is 15th September, 2020. The program starts on 1st March 2021.

The announcement is aimed at excellent graduates with a Master's degree in any field of pertinence for studying spatial sustainability transformations, such as geography, urban and regional planning, urban studies, environmental sciences, science and technology studies, transition studies, geoinformatics, civil engineering, architecture, economics, sociology, political sciences, or anthropology, among others. A detailed description of the application requirements and procedure can be found on the DLGS website:

<http://www.dlgs-dresden.de>

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The DLGS – Dresden Leibniz Graduate School is a joint interdisciplinary facility of the Leibniz Institute of Ecological Urban and Regional Development, Dresden (IOER) and Technische Universität Dresden (TUD).