

Titel des Themas

Cities, Climate Change and Quality of Life

Schlagworte

urban, climate change mitigation and adaptation, public policy, public health and well-being, behavioral change

Kurzfassung des Themas

Research at the nexus of climate change and cities has developed rapidly in recent years. It has received attention in recent IPCC reports and other assessments and is framed as key research area in journals like Nature Sustainability or Urban Nature Sustainability. While progress has been made, the field is hampered by two huge challenges. The first challenge is that of replication and generalizability: Due to divergent and unclear boundaries of analysis and widely varying contextual conditions, research results are hard to replicate and to generalize across cities. More systematic analysis and comparative research at global level and across continents, across different climate zones and across governance systems and cultures is required. The second challenge is that of implementing mitigation and adaptation measures in cities. While climate change mitigation and adaptation strategies have been identified, there is a lack of understanding on how to transfer modeled solutions into action and into relevant/decisive actor networks. To meet these challenges, collaborative research across cities, interdisciplinary research and transdisciplinary research, acknowledging the wicked character of the scale-spanning problem is required. Key results will involve a comprehensive and synthetic assessment of the impact of climate change on dynamic cities and their individual mitigation and adaptation strategies.

a) Inwiefern stellt das Thema eine globale Herausforderung von hoher aktueller und zukünftiger gesellschaftlicher Relevanz dar?

Climate change poses one of the greatest challenges to humanity and the planet as a whole. The consequences of human-made climate change are omnipresent, and the current generation carries the responsibility to act decisively. Cities are hotspots of climate extremes and are also responsible for the majority of global greenhouse gas emissions. Strategies to mitigate and adapt to climate change at urban levels are deeply entangled with lifestyles and quality of life of citizens. Identifying suitable strategies to handle increasingly dangerous climate change and form resilient and zero-carbon cities is a burning question for mayors across the globe. C40, ICLEI and other global networks of cities are already trying to tackle these challenges and seek data-based support. It is equally important to investigate how strategies can be transferred or modified to rural, less densely populated areas. Climate sciences provide clear evidence on how anthropogenic activity (releasing greenhouse gases) causes current and future global warming. The most urgent gap is between knowledge and action. In particular, action is at the end always localized and changes are experienced at the specific level of cities and human settlements. This action also nearly always interferes with lifestyles and questions of well-being. Hence, it is important to situate

climate action at the urban level and ask for the interrelationship of climate action with quality of life.

b) Welches wissenschaftliche Erkenntnisinteresse wird aufgegriffen und ist anschlussfähig für exzellente, internationale Forschung?

Research on cities and climate change is exploding - exponentially growing. Research on cities and climate change is a wicked problem as various different perspectives are possible and legitimate and also because the open issue of the precise goal function (mitigation, adaptation, well-being, public health, accessibility, etc) warrants a continued and iterative effort to resolve the problem. The topic of cities and climate change hence requires joint interdisciplinary and transdisciplinary research. It also requires a global scope. For example, urbanization is mostly happening in Asia and Africa, and a global environmental change lens requires explicit consideration of region specific dynamics. A global scope is also fitting as technologies and approaches to mitigation of emissions from and adaptation of city buildings are similar globally as many newer buildings have common characteristics, wherever they are located (concrete blocks, glass, central heating / cooling etc).

c) Inwieweit ist das Thema durch die Expertise der Berliner Wissenschaft und Gesellschaft inter- und transdisziplinär bearbeitbar und/oder lösbar?

BUA and Berlin academic research institutions (difu, IÖW, MCC, and others) combine an impressive and diverse field of experts researching cities and climate change from the perspectives of humanities, social sciences, engineering, and natural sciences. The Climate Change Center and the envisaged Einstein Climate Change Center (approved to submit full application), together with other funded networks, such as the collaborative research centre CRC 1265 "Re-Figuration of Spaces" and the Einstein Research Unit Climate and Water under Change (CliWaC) provide a nucleus of networking and joint research efforts. Also various EU funded projects, focussing on urban nature-based solutions, such as Connecting Nature, Clearing House, and RECONNECT provide substantial expertise relevant to further integrate climate research on cities in Berlin. The urban and climate nexus is also relevant to the strategic partners of the BUA (University of Oxford, University of Melbourne, National University of Singapore), who we would like to engage as partners.

Welche weiteren, bislang noch nicht genannten, Argumente sprechen für Ihr Thema?

Research on the public policy of human settlements is missing, investigating the role of widely different actors, the shaping factors of infrastructure, digitalization, legal context and labor force, and processes of how strategies are sequentially implemented to enable sufficient support and success in realization. Equally important is the consideration of quality of life and public health in cities, as these are often dominant co-dimension in the design of climate protection measures at municipal level. Decisive will also be a better and clearer acknowledgement of justice issues among urban age groups and gender. The role of women in taking realization of home-related adaptation (mitigation) actions of CC effects on family health and education is key in many societies across the globe, in particular in the societies

of the Global South. Our aim is to foster public policy on climate change by bringing technological expertise and the social sciences together to create directly applicable knowledge on addressing climate change. This would be directed to civil servants and society as they try to address the overarching climate change related challenges of the 21st century. Knowledge will be generated at the interface of engineering, urban studies, political science, art and culture, taking multiple perspectives, and will provide graduate students and stakeholders with the analytic tools necessary for addressing the complex climate change issues prevalent in public policy.