Extreme Heat in Cities: Co-Developing Just Adaptation for Urban Tourism

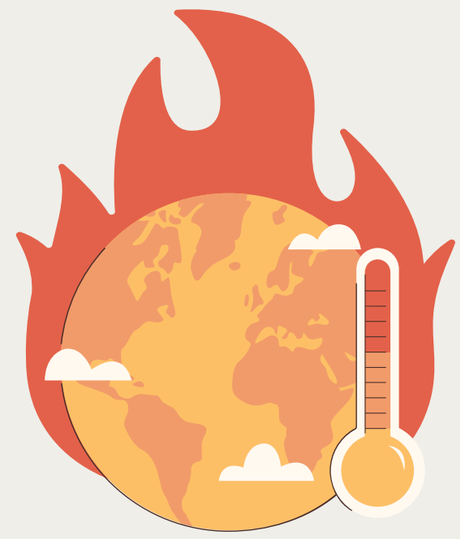
Extreme heat is becoming one of the greatest climate risks facing cities, threatening public health, tourism, infrastructure and economic productivity, especially in tourism. By integrating a global analysis with three city case studies, this research co-develops innovative responses to reduce heat risk within urban systems. A new set of adaptation principles will help prioritise low-carbon, just responses, implemented through collaborative governance systems across different scales and sectors.

Why This Matters

Every year cities become hotter, putting both people and local economies at risk, especially in tourism. Without effective adaptation, heatwaves can harm health, disrupt businesses, and increase pressure on city systems. By addressing these challenges, the project helps developing practical, low carbon solutions that help cities become safer, more resilient tourism destinations.

Our Approach

Our approach combines global research with detailed city case studies to better understand how extreme heat affects tourism and urban systems. The project measures future tourism-related heat hazards and applies modelling to understand differentiated vulnerabilities and examine strains on the urban and health systems. In a novel approach, this research co-creates adaptation principles that are just, low-carbon, and collaborative.

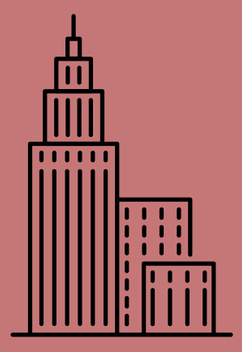


What makes this research different

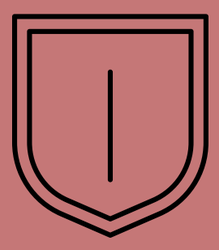
- Conducts tourism-specific heat hazard measure
- Analyses health system data to predict how tourism strains emergency services during heatwaves
- Explicitly recognises tourism workers, a group often neglected in climate adaptation research
- Co-develops adaptation pathways with stakeholders across tourism, health, and urban planning
- Places climate justice at the forefront

Excpected Outcomes

Stronger health systems
A predictive model of tourism-induced strain on health systems toinform preparedness and planning.



Coordinated adaptation
Tourism heat maps and strategies co-developed with stakeholders and vulnerable community representatives.



Improved safety and resilience
Strategies to protect tourists and workers and reduce health risks during heat events.

Contact us

Help shape a global movement to co-develop innovative, just and low-carbon responses to heat risk in urban tourism.
Email Prof Susanne Becken: s.becken@griffith.edu.au

Griffith UNIVERSITY

Meet The Team

Prof Susanne Becken — Chief Investigator, Griffith University
Prof Susanne Becken is a leading expert in sustainable tourism and climate change, with over 25 years of research shaping global policy and practice. She has worked extensively with governments and international organisations to improve how tourism responds to environmental challenges. In this project, she brings deep expertise in climate risk, tourism systems, and resilience.

Dr Raymond Rastegar — Chief Investigator, Griffith University
Dr Raymond Rastegar specialises in climate justice and sustainability transitions in tourism. His research focuses on ensuring fair and inclusive responses to global challenges, particularly for vulnerable groups. In this project, he contributes expertise in justice-focused frameworks and equitable climate adaptation.

A/Prof Johanna Nalau — Chief Investigator, Griffith University
Associate Professor Johanna Nalau is a globally recognised leader in climate adaptation science, contributing to major international efforts like the IPCC. Her work connects scientific research with real-world decision-making to improve how societies respond to climate risks. She brings strong expertise in developing practical and effective adaptation strategies.

A/Prof Jamie Ranse — Chief Investigator, Griffith University
Associate Professor Jamie Ranse is an expert in disaster and emergency health, with a focus on how extreme events impact human wellbeing. His research helps improve health system responses to crises, including heat-related risks. In this project, he provides critical insight into protecting public health during extreme heat events.

Prof Daniel Scott — Partner Investigator, University of Waterloo
Prof Daniel Scott is a leading international researcher in climate change and tourism, with a strong focus on how environmental changes impact travel and destination sustainability. His work has helped shape global understanding of climate risks in tourism and informed major policy and industry responses. In this project, he contributes expertise in global climate analysis and tourism system impacts.

Dr Patrick Amoatey — Research Fellow, Griffith University
Dr Patrick Amoatey is an expert in climate hazards, and the intersection between exposure science, risk assessment, epidemiology, and public health. In this project, he contributes a strong expertise in human health risk assessment and climate modelling/monitoring.